



## Red Hat Virtualization 4.4

### REST API Guide

Using the Red Hat Virtualization REST Application Programming Interface



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Using the Red Hat Virtualization REST Application Programming Interface

Red Hat Virtualization Documentation Team

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## Abstract

This guide describes the Red Hat Virtualization Manager Representational State Transfer Application Programming Interface. This guide is generated from documentation comments in the `ovirt-engine-api-model` code, and is currently partially complete. Updated versions of this documentation will be published as new content becomes available.

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# CHAPTER 1. INTRODUCTION

The Red Hat Virtualization Manager provides a **Representational State Transfer (REST) API**. The API provides software developers and system administrators with control over their Red Hat Virtualization environment outside of the standard web interface. The API is useful for developers and administrators to integrate the functionality of a Red Hat Virtualization environment with custom scripts or external applications that access the API via the standard Hypertext Transfer Protocol (HTTP).

The benefits of the API are:

- Broad client support - Any programming language, framework, or system with support for HTTP protocol can use the API.
- Self descriptive - Client applications require minimal knowledge of the virtualization infrastructure, as many details are discovered at runtime.
- Resource-based model - The resource-based REST model provides a natural way to manage a virtualization platform.

This provides developers and administrators with the ability to:

- Integrate with enterprise IT systems.
- Integrate with third-party virtualization software.
- Perform automated maintenance or error-checking tasks.
- Automate repetitive tasks in a Red Hat Virtualization environment with scripts.

This documentation acts as a reference for the Red Hat Virtualization API. It aims to provide developers and administrators with instructions and examples to help harness the functionality of their Red Hat Virtualization environment through the API, either directly or using the provided SDKs.

## 1.1. REPRESENTATIONAL STATE TRANSFER

**Representational State Transfer (REST)** is a design architecture that focuses on resources for a specific service and their representations. A resource representation is a key abstraction of information that corresponds to one specific managed element on a server. A client sends a request to a server element located at a Uniform Resource Identifier (URI) and performs operations with standard HTTP methods, such as **GET**, **POST**, **PUT**, and **DELETE**. This provides a stateless communication between the client and server where each request acts independently of any other request, and contains all the information necessary to complete the request.

### 1.1.1. API Prerequisites

Prerequisites for using the Red Hat Virtualization API:

- A networked installation of Red Hat Virtualization Manager, which includes the API.
- A client or programming library that initiates and receives HTTP requests from the API server, for example:
  - The [oVirt Python SDK](#).
  - The [oVirt Java SDK](#).

- The [cURL](#) command line tool.
- [RESTClient](#), a debugger for RESTful web services.
- Knowledge of Hypertext Transfer Protocol (HTTP), the protocol used for REST API interactions. See [RFC 2616: HTTP/1.1](#).
- Knowledge of Extensible Markup Language (XML) or JavaScript Object Notation (JSON), which the API uses to construct resource representations. See W3C [Extensible Markup Language \(XML\) 1.0](#) and [ECMA-404: JSON data interchange syntax](#).

## CHAPTER 2. AUTHENTICATION AND SECURITY

### 2.1. TLS/SSL CERTIFICATION

The Red Hat Virtualization API requires Hypertext Transfer Protocol Secure (HTTPS) footnote:[See [RFC 2818: HTTP Over TLS](#) for secure interaction with client software, such as the SDK and CLI components. This involves obtaining the [CA certificate](#) used by the server and importing it into the certificate store of your client.

#### 2.1.1. Obtaining the CA Certificate

You can obtain the CA certificate from the Red Hat Virtualization Manager and transfer it to the client machine using one of these methods:

##### Method 1

The preferred method for obtaining the CA certificate is to use the **openssl s\_client** command line tool to perform a real TLS handshake with the server, and then extract the certificates that it presents.

1. Run the **openssl s\_client** command as in the following example:

```
$ openssl s_client \
-connect myengine.example.com:443 \
-showcerts \
< /dev/null
```

##### Example output

```
CONNECTED(00000003)
depth=1 C = US, O = Example Inc., CN = myengine.example.com.23416
verify error:num=19:self signed certificate in certificate chain
---
Certificate chain
 0 s:/C=US/O=Example Inc./CN=myengine.example.com
  i:/C=US/O=Example Inc./CN=myengine.example.com.23416
-----BEGIN CERTIFICATE-----
MIIeATCCA1GgAwIBAgICEAQwDQYJKoZIhvcNAQEFBQAwSTELMAkGA1UEBhMCVVMx
FTATBgNVBAoTDEV4YW1wbGUgSW5lLjEjMCEGA1UEAxMaZW5naW5lINDEuZXhhbXBs
SVIJe7e5FTEtHJGTAEWWM6dGbsFhip5VXM0gfqg=
-----END CERTIFICATE-----
 1 s:/C=US/O=Example Inc./CN=myengine.example.com.23416
  i:/C=US/O=Example Inc./CN=myengine.example.com.23416
-----BEGIN CERTIFICATE-----
MIIDxjCCAq6gAwIBAgICEAAwDQYJKoZIhvcNAQEFBQAwSTELMAkGA1UEBhMCVVMx
FTATBgNVBAoTDEV4YW1wbGUgSW5lLjEjMCEGA1UEAxMaZW5naW5lINDEuZXhhbXBs
Pkyg1rQHR6ebGQ==
-----END CERTIFICATE-----
```

The text between the **-----BEGIN CERTIFICATE-----** and **-----END CERTIFICATE-----** lines shows the certificates presented by the server.

The first certificate is the certificate of the server itself. The second certificate is the certificate of the CA.

2. Copy the CA certificate, including the **-----BEGIN CERTIFICATE-----** and **-----END CERTIFICATE-----** lines, to the **ca.crt** file as in the following example:

```
-----BEGIN CERTIFICATE-----
MIIDxjCCAq6gAwIBAgICEAAwDQYJKoZIhvcNAQEFBQAwSTELMAkGA1UEBhMCVVMx

FTATBgNVBAoTDEV4YW1wbGUgSW5jLjEjMCEGA1UEAxMaZW5naW50INDEuZXhhbXBs

Pkyg1rQHR6ebGQ==
-----END CERTIFICATE-----
```



### IMPORTANT

This is the most reliable method to obtain the CA certificate used by the server. The rest of the methods described here will work in most cases, but they will not obtain the correct CA certificate if the certificate has been manually replaced by the server administrator.

### Method 2

If you cannot use **openssl s\_client** to obtain the certificate, you can use a command line tool, for example **curl** or **wget**, to download the CA certificate from the Red Hat Virtualization Manager. **curl** and **wget** are available on multiple platforms.

- If using **curl**:

```
$ curl \
--output ca.crt \
'http://myengine.example.com/ovirt-engine/services/pki-resource?resource=ca-
certificate&format=X509-PEM-CA'
```

- If using **wget**:

```
$ wget \
--output-document ca.crt \
'http://myengine.example.com/ovirt-engine/services/pki-resource?resource=ca-
certificate&format=X509-PEM-CA'
```

### Method 3

Use a web browser to navigate to the certificate located at `https://myengine.example.com/ovirt-engine/services/pki-resource?resource=ca-certificate&format=X509-PEM-CA``.

Depending on the chosen browser, the certificate is downloaded or imported into the browser's keystore:

- If the browser downloads the certificate, save the file as **ca.crt**.
- If the browser imports the certificate, export it using the browser's certificate management options and save it as **ca.crt**.

## Method 4

Log in to the Red Hat Virtualization Manager, export the certificate from the truststore, and copy it to your client machine.

1. Log in to the Red Hat Virtualization Manager machine as **root**.
2. Export the certificate from the truststore using the Java **keytool** management utility:

```
# keytool \  
-keystore /etc/pki/ovirt-engine/.truststore \  
-storepass mypass \  
-exportcert \  
-alias cacert \  
-rfc \  
-file ca.crt
```

This creates a certificate file called **ca.crt**.

3. Copy the certificate to the client machine using the **scp** command:

```
$ scp ca.crt myuser@myclient.example.com:/home/myuser/.
```

Each of these methods results in a certificate file named **ca.crt** on your client machine. You must then import this file into the certificate store of the client.

### 2.1.2. Importing a Certificate to a Client

Importing a certificate to a client relies on how the client stores and interprets certificates. See your client documentation for more information on importing a certificate.

## 2.2. AUTHENTICATION

Any user with a Red Hat Virtualization Manager account has access to the API. All requests must be authenticated using either **OAuth** or basic authentication, as described below.

### 2.2.1. OAuth Authentication

Since version 4.0 of Red Hat Virtualization the preferred authentication mechanism is [OAuth 2.0](#), as described in [RFC 6749](#).

**OAuth** is a sophisticated protocol, with several mechanisms for obtaining authorization and access tokens. For use with the Red Hat Virtualization API, the only supported one is the *Resource Owner Password Credentials Grant*, as described in [RFC 6749](#).

You must first obtain a *token*, sending the user name and password to the Red Hat Virtualization Manager single sign-on service:

```
POST /ovirt-engine/sso/oauth/token HTTP/1.1  
Host: myengine.example.com  
Content-Type: application/x-www-form-urlencoded  
Accept: application/json
```

The request body must contain the **grant\_type**, **scope**, **username**, and **password** parameters:

Table 2.1. OAuth token request parameters

Name	Value
<b>grant_type</b>	<b>password</b>
<b>scope</b>	<b>ovirt-app-api</b>
<b>username</b>	<b>admin@internal</b>
<b>password</b>	<b>mypassword</b>

These parameters must be [URL-encoded](#). For example, the @ character in the user name needs to be encoded as **%40**. The resulting request body will be something like this:

```
grant_type=password&scope=ovirt-app-api&username=admin%40internal&password=mypassword
```



### IMPORTANT

The **scope** parameter is described as optional in the **OAuth RFC**, but when using it with the Red Hat Virtualization API it is mandatory, and its value must be **ovirt-app-api**.

If the user name and password are valid, the Red Hat Virtualization Manager single sign-on service will respond with a JSON document similar to this one:

```
{
  "access_token": "fqBR1ftzh8wBCviLxJcYuV5oSDI=",
  "token_type": "bearer",
  "scope": "...",
  ...
}
```

For API authentication purposes, the only relevant name/value pair is the **access\_token**. Do not manipulate this in any way; use it exactly as provided by the SSO service.

Once the token has been obtained, it can be used to perform requests to the API by including it in the HTTP **Authorization** header, and using the **Bearer** scheme. For example, to get the list of virtual machines, send a request like this:

```
GET /ovirt-engine/api/vms HTTP/1.1
Host: myengine.example.com
Accept: application/xml
Authorization: Bearer fqBR1ftzh8wBCviLxJcYuV5oSDI=
```

The token can be used multiple times, for multiple requests, but it will eventually expire. When it expires, the server will reject the request with the 401 HTTP response code:

```
HTTP/1.1 401 Unauthorized
```

When this happens, a new token is needed, as the Red Hat Virtualization Manager single sign-on service does not currently support refreshing tokens. A new token can be requested using the same method described above.

## 2.2.2. Basic Authentication



### IMPORTANT

Basic authentication is supported only for backwards compatibility; it is deprecated since version 4.0 of Red Hat Virtualization, and will be removed in the future.

Each request uses HTTP Basic Authentication <sup>[1]</sup> to encode the credentials. If a request does not include an appropriate **Authorization** header, the server sends a **401 Authorization Required** response:

```
HEAD /ovirt-engine/api HTTP/1.1
Host: myengine.example.com

HTTP/1.1 401 Authorization Required
```

Requests are issued with an **Authorization** header for the specified realm. Encode an appropriate Red Hat Virtualization Manager domain and user in the supplied credentials with the **username@domain:password** convention.

The following table shows the process for encoding credentials in [Base64](#).

**Table 2.2. Encoding credentials for API access**

Item	Value
User name	<b>admin</b>
Domain	<b>internal</b>
Password	<b>mypassword</b>
Unencoded credentials	<b>admin@internal:mypassword</b>
Base64 encoded credentials	<b>YWRtaW5AaW50ZXJuYWw6bXlwYXNzd29yZA==</b>

Provide the Base64-encoded credentials as shown:

```
HEAD /ovirt-engine/api HTTP/1.1
Host: myengine.example.com
Authorization: Basic YWRtaW5AaW50ZXJuYWw6bXlwYXNzd29yZA==

HTTP/1.1 200 OK
```

**IMPORTANT**

Basic authentication involves potentially sensitive information, such as passwords, sent as plain text. The API requires Hypertext Transfer Protocol Secure (HTTPS) for transport-level encryption of plain-text requests.

**IMPORTANT**

Some Base64 libraries break the result into multiple lines and terminate each line with a newline character. This breaks the header and causes a faulty request. The **Authorization** header requires the encoded credentials on a single line within the header.

## 2.2.3. Authentication Sessions

The API also provides authentication session support. Send an initial request with authentication details, then send all subsequent requests using a session cookie to authenticate.

### 2.2.3.1. Requesting an Authenticated Session

1. Send a request with the **Authorization** and **Prefer: persistent-auth** headers:

```
HEAD /ovirt-engine/api HTTP/1.1
Host: myengine.example.com
Authorization: Basic YWRtaW5AaW50ZXJuYWw6bXlwYXNzd29yZA==
Prefer: persistent-auth

HTTP/1.1 200 OK
...
```

This returns a response with the following header:

```
Set-Cookie: JSESSIONID=5dQja5ubr4yvl2MM2z+LZxrK; Path=/ovirt-engine/api; Secure
```

Take note of the **JSESSIONID=** value. In this example the value is **5dQja5ubr4yvl2MM2z+LZxrK**.

2. Send all subsequent requests with the **Prefer: persistent-auth** and **Cookie** headers with the **JSESSIONID=** value. The **Authorization** header is no longer needed when using an authenticated session.

```
HEAD /ovirt-engine/api HTTP/1.1
Host: myengine.example.com
Prefer: persistent-auth
Cookie: JSESSIONID=5dQja5ubr4yvl2MM2z+LZxrK

HTTP/1.1 200 OK
...
```

3. When the session is no longer required, perform a request to the sever without the **Prefer: persistent-auth** header.

```
HEAD /ovirt-engine/api HTTP/1.1
Host: myengine.example.com
Authorization: Basic YWRtaW5AaW50ZXJuYWw6bXlwYXNzd29yZA==
```



HTTP/1.1 200 OK

...

---

[1] Basic Authentication is described in [RFC 2617: HTTP Authentication: Basic and Digest Access Authentication](#)

## CHAPTER 3. COMMON CONCEPTS

### 3.1. TYPES

The API uses the *type* concept to describe the different kinds of objects accepted and returned.

There are three relevant kinds of types:

#### Primitive types

Describe simple kinds of objects, like [strings](#) or [integers](#).

#### Enumerated types

Describe lists of valid values like [VmStatus](#) or [DiskFormat](#).

#### Structured types

Describe structured objects, with multiple attributes and links, like [Vm](#) or [Disk](#).

### 3.2. IDENTIFIED TYPES

Many of the types used by the API represent *identified* objects, objects that have a unique identifier and exist independently of other objects. The types used to describe those objects extend the [Identified](#) type, which contains the following set of common attributes:

Attribute	Type	Description
<b>id</b>	<a href="#">String</a>	Each object in the virtualization infrastructure contains an <b>id</b> , which acts as a unique identifier.
<b>href</b>	<a href="#">String</a>	The canonical location of the object as an absolute path.
<b>name</b>	<a href="#">String</a>	A user-supplied human readable name for the object. The <b>name</b> name is unique across all objects of the same type.
<b>description</b>	<a href="#">String</a>	A free-form user-supplied human readable description of the object.



#### IMPORTANT

Currently for most types of objects the **id** attribute is actually a randomly generated [UUID](#), but this is an implementation detail, and users should not rely on that, as it may change in the future. Instead users should assume that these identifiers are just strings.

### 3.3. OBJECTS

Objects are the individual instances of the types supported by the API. For example, the virtual machine with identifier **123** is an object of the [Vm](#) type.

### 3.4. COLLECTIONS

A collection is a set of objects of the same type.

## 3.5. REPRESENTATIONS

The state of objects needs to be represented when it is transferred between the client and the server. The API supports XML and JSON as the representation of the state of objects, both for input and output.

### 3.5.1. XML representation

The XML representation of an object consists of an XML element corresponding to the type of the object, XML attributes for the **id** and **href** attributes, and nested XML elements for the rest of the attributes. For example, the XML representation for a virtual machine appears as follows:

```
<vm id="123" href="/ovirt-engine/api/vms/123">
  <name>myvm</name>
  <description>My VM</description>
  <memory>1073741824</memory>
  ...
</vm>
```

The XML representation of a collection of objects consists of an XML element, named after the type of the objects, in plural. This contains the representations of the objects of the collection. For example, the XML representation for a collection of virtual machines appears as follows:

```
<vms>
  <vm id="123" href="/ovirt-engine/api/vms/123">
    <name>yourvm</name>
    <description>Your VM</description>
    <memory>1073741824</memory>
    ...
  </vm>
  <vm id="456" href="/ovirt-engine/api/vms/456">
    <name>myname</name>
    <description>My description</description>
    <memory>2147483648</memory>
    ...
  </vm>
  ...
</vms>
```



#### IMPORTANT

In the XML representation of objects the **id** and **href** attributes are the only ones that are represented as XML attributes, the rest are represented as nested XML elements.

### 3.5.2. JSON representation

The JSON representation of an object consists of a JSON document containing a name/value pair for each attribute (including **id** and **href**). For example, the JSON representation of a virtual machine appears as follows:

```
{
  "id": "123",
  "href": "/ovirt-engine/api/vms/123",
  "name": "myvm",
```

```

    "description": "My VM",
    "memory": 1073741824,
    ...
  }

```

The JSON representation of a collection of objects consists of a JSON document containing a name/value pair (named after the type of the objects, in singular) which in turn contains an array with the representations of the objects of the collection. For example, the JSON representation for a collection of virtual machines appears as follows:

```

{
  "vm": [
    {
      "id": "123",
      "href": "/ovirt-engine/api/vms/123",
      "name": "myvm",
      "description": "My VM",
      "memory": 1073741824,
      ...
    },
    {
      "id": "456",
      "href": "/ovirt-engine/api/vms/456",
      "name": "yourvm",
      "description": "Your VM",
      "memory": 2147483648,
      ...
    },
  ]
}

```

### 3.6. SERVICES

Services are the parts of the server responsible for retrieving, adding updating, removing and executing actions on the objects supported by the API.

There are two relevant kinds of services:

#### Services that manage a collection of objects

These services are responsible for listing existing objects and adding new objects. For example, the [Vms](#) service is responsible for managing the collection of virtual machines available in the system.

#### Services that manage a specific object

These services are responsible for retrieving, updating, deleting and executing actions in specific objects. For example, the [Vm](#) service is responsible for managing a specific virtual machine.

Each service is accessible via a particular *path* within the server. For example, the service that manages the collection of virtual machines available in the system is available in the via the path `/vms`, and the service that manages the virtual machine **123** is available via the path `/vms/123`.

All kinds of services have a set of *methods* that represent the operations that they can perform. The services that manage collections of objects usually have the **list** and **add** methods. The services that manage specific objects usually have the **get**, **update** and **remove** methods. In addition, services may also have *action* methods, that represent less common operations. For example, the [Vm](#) service has a `start` method that is used to start a virtual machine.

For the more usual methods there is a direct mapping between the name of the method and the name of the HTTP method:

Method name	HTTP method
<b>add</b>	POST
<b>get</b>	GET
<b>list</b>	GET
<b>update</b>	PUT
<b>remove</b>	DELETE

The path used in the HTTP request is the path of the service, with the **/ovirt-engine/api** prefix.

For example, the request to **list** the virtual machines should be like this, using the HTTP **GET** method and the path **/vms**:

```
GET /ovirt-engine/api/vms
```

For action methods the HTTP method is always **POST**, and the name of the method is added as a suffix to the path. For example, the request to start virtual machine **123** should look like this, using the HTTP **POST** method and the path **/vms/123/start**:

```
POST /ovirt-engine/api/vms/123/start
```

Each method has a set of parameters.

Parameters are classified into two categories:

### Main parameter

The main parameter corresponds the object or collection that is retrieved, added or updated. This only applies to the **add**, **get**, **list** and **update** methods, and there will be exactly one such main parameter per method.

### Secondary parameters

The rest of the parameters.

For example, the operation that adds a virtual machine (see [here](#)) has three parameters: **vm**, **clone** and **clone\_permissions**. The main parameter is **vm**, as it describes the object that is added. The **clone** and **clone\_permissions** parameters are secondary parameters.

The main parameter, when used for input, must be included in the body of the HTTP request. For example, when adding a virtual machine, the **vm** parameter, of type **Vm** must be included in the request body. So the complete request to add a virtual machine, including all the HTTP details, must look like this:

```
POST /ovirt-engine/api/vms HTTP/1.1
Host: myengine.example.com
Authorization: Bearer fqBR1ftzh8wBCviLxJcYuV5oSDI=
```

```
Content-Type: application/xml
```

```
Accept: application/xml
```

```
<vm>
  <name>myvm</name>
  <description>My VM</description>
  <cluster>
    <name>Default</name>
  </cluster>
  <template>
    <name>Blank</name>
  </template>
</vm>
```

When used for output, the main parameters are included in the response body. For example, when adding a virtual machine, the **vm** parameter will be included in the response body. So the complete response body will look like this:

```
HTTP/1.1 201 Created
```

```
Content-Type: application/xml
```

```
<vm href="/ovirt-engine/api/vms/123" id="123">
  <name>myvm</name>
  <description>My VM</description>
  ...
</vm>
```

Secondary parameters are only allowed for input (except for action methods, which are described later), and they must be included as query parameters. For example, when adding a virtual machine with the **clone** parameter set to **true**, the complete request must look like this:

```
POST /ovirt-engine/api/vms?clone=true HTTP/1.1
Host: myengine.example.com
Authorization: Bearer fqBR1ftzh8wBCviLxJcYuV5oSDI=
Content-Type: application/xml
Accept: application/xml
```

```
<vm>
  <name>myvm</name>
  <description>My VM</description>
  <cluster>
    <name>Default</name>
  </cluster>
  <template>
    <name>Blank</name>
  </template>
</vm>
```

Action methods only have secondary parameters. They can be used for input and output, and they should be included in the request body, wrapped with an **action** element. For example, the action method used to start a virtual machine (see [here](#)) has a **vm** parameter to describe how the virtual machine should be started, and a **use\_cloud\_init** parameter to specify if [cloud-init](#) should be used to configure the guest operating system. So the complete request to start virtual machine **123** using *cloud-init* will look like this when using XML:

```
POST /ovirt-engine/api/vms/123/start HTTP/1.1
Host: myengine.example.com
Authorization: Bearer fqBR1ftzh8wBCviLxJcYuV5oSDI=
Content-Type: application/xml
Accept: application/xml
```

```
<action>
  <use_cloud_init>true</use_cloud_init>
  <vm>
    <initialization>
      <nic_configurations>
        <nic_configuration>
          <name>eth0</name>
          <on_boot>true</on_boot>
          <boot_protocol>static</boot_protocol>
          <ip>
            <address>192.168.0.100</address>
            <netmask>255.255.255.0</netmask>
            <gateway>192.168.0.1</netmask>
          </ip>
        </nic_configuration>
      </nic_configurations>
      <dns_servers>192.168.0.1</dns_servers>
    </initialization>
  </vm>
</action>
```

## 3.7. SEARCHING

The **list** method of some services has a **search** parameter that can be used to specify search criteria. When used, the server will only return objects within the collection that satisfy those criteria. For example, the following request will return only the virtual machine named **myvm**:

```
GET /ovirt-engine/api/vms?search=name%3Dmyvm
```

### 3.7.1. Maximum results parameter

Use the **max** parameter to limit the number of objects returned. For example, the following request will only return one virtual machine, regardless of how many are available in the system:

```
GET /ovirt-engine/api/vms?max=1
```

A search request without the **max** parameter will return all the objects. Specifying the **max** parameter is recommended to reduce the impact of requests in the overall performance of the system.

### 3.7.2. Case sensitivity

By default queries are not case sensitive. For example, the following request will return the virtual machines named **myvm**, **MyVM** and **MYVM**:

```
GET /ovirt-engine/api/vms?search=name%3Dmyvm
```

The optional **case\_sensitive** boolean parameter can be used to change this behaviour. For example, to get exactly the virtual machine named **myhost**, and not **MyHost** or **MYHOST**, send a request like this:

```
GET /ovirt-engine/api/vms?search=name%3D=myvm&case_sensitive=true
```

### 3.7.3. Search syntax

The **search** parameters use the same syntax as the Red Hat Virtualization query language:

```
(criteria) [sortby (element) asc|desc]
```

The **sortby** clause is optional and only needed when ordering results.

Example search queries:

Collection	Criteria	Result
<b>hosts</b>	<b>vms.status=up</b>	Returns a list of all hosts running virtual machines that are <b>up</b> .
<b>vms</b>	<b>domain=example.com</b>	Returns a list of all virtual machines running on the specified domain.
<b>vms</b>	<b>users.name=mary</b>	Returns a list of all virtual machines belonging to users with the user name <b>mary</b> .
<b>events</b>	<b>severity &gt; normal sortby time</b>	Returns a list of all events with severity higher than <b>normal</b> and sorted by the the value of their <b>time</b> attribute.
<b>events</b>	<b>severity &gt; normal sortby time desc</b>	Returns a list of all events with severity higher than <b>normal</b> and sorted by the the value of their <b>time</b> attribute in descending order.

The value of the **search** parameter must be [URL-encoded](#) to translate reserved characters, such as operators and spaces. For example, the equal sign should be encoded as **%3D**:

```
GET /ovirt-engine/api/vms?search=name%3Dmyvm
```

### 3.7.4. Wildcards

The asterisk can be used as part of a value, to indicate that any string matches, including the empty string. For example, the following request will return all the virtual machines with names beginning with **myvm**, such as **myvm**, **myvm2**, **myvma** or **myvm-webserver**:

```
GET /ovirt-engine/api/vms?search=name%3Dmyvm*
```

### 3.7.5. Pagination

Some Red Hat Virtualization environments contain large collections of objects. Retrieving all of them with one request isn't practical, and hurts performance. To allow retrieving them page by page the **search**

parameter supports an optional **page** clause. This, combined with the **max** parameter, is the basis for paging. For example, to get the first page of virtual machines, with a page size of 10 virtual machines, send request like this:

```
GET /ovirt-engine/api/vms?search=page%201&max=10
```



#### NOTE

The search parameter is URL-encoded, the actual value of the **search** parameter, before encoding, is **page 1**, so this is actually requesting the first page.

Increase the **page** value to retrieve the next page:

```
GET /ovirt-engine/api/vms?search=page%202&max=10
```

The **page** clause can be used in conjunction with other clauses inside the **search** parameter. For example, the following request will return the second page of virtual machines, but sorting by name:

```
GET /ovirt-engine/api/vms?search=sortBy%20name%20page%202&max=10
```



#### IMPORTANT

The API is stateless; it is not possible to retain a state between different requests since all requests are independent from each other. As a result, if a status change occurs between your requests, then the page results may be inconsistent.

For example, if you request a specific page from a list of virtual machines, and virtual machines are created or removed before you request the next page, then your results may be missing some of them, or contain duplicates.

## 3.8. FOLLOWING LINKS

The API returns references to related objects as *links*. For example, when a virtual machine is retrieved it contains links to its disk attachments and network interface cards:

```
<vm id="123" href="/ovirt-engine/api/vms/123">
  ...
  <link rel="diskattachments" href="/ovirt-engine/api/vms/123/diskattachments"/>
  <link rel="nics" href="/ovirt-engine/api/vms/123/nics"/>
  ...
</vm>
```

The complete description of those *linked* objects can be retrieved by sending separate requests:

```
GET /ovirt-engine/api/vms/123/diskattachments
GET /ovirt-engine/api/vms/123/nics
```

However, in some situations it is more convenient for the application using the API to retrieve the linked information in the same request. This is useful, for example, when the additional network round trips introduce an unacceptable overhead, or when the multiple requests complicate the code of the application in an unacceptable way. For those use cases the API provides a **follow** parameter that allows the application to retrieve the linked information using only one request.

The value of the **follow** parameter is a list of strings, separated by commas. Each of those strings is the *path* of the linked object. For example, to retrieve the disk attachments and the NICs in the example above the request should be like this:

```
GET /ovirt-engine/api/vms/123?follow=disk_attachments,nics
```

That will return an response like this:

```
<vm id="123" href="/ovirt-engine/api/vms/123">
...
<disk_attachments>
  <disk_attachment id="456" href="/ovirt-engine/api/vms/123/diskattachments/456">
    <active>true</active>
    <bootable>true</bootable>
    <interface>virtio_scsi</interface>
    <pass_discard>false</pass_discard>
    <read_only>false</read_only>
    <uses_scsi_reservation>false</uses_scsi_reservation>
    <disk id="789" href="/ovirt-engine/api/disks/789"/>
  </disk_attachment>
  ...
</disk_attachments>
<nics>
  <nic id="234" href="/ovirt-engine/api/vms/123/nics/234">
    <name>eth0</name>
    <interface>virtio</interface>
    <linked>true</linked>
    <mac>
      <address>00:1a:4a:16:01:00</address>
    </mac>
    <plugged>true</plugged>
  </nic>
  ...
</nics>
...
</vm>
```

The path to the linked object can be a single word, as in the previous example, or it can be a sequence of words, separated by dots, to request nested data. For example, the previous example used **disk\_attachments** in order to retrieve the complete description of the disk attachments, but each disk attachment contains a link to the disk, which wasn't *followed*. In order to also follow the links to the disks, the following request can be used:

```
GET /ovirt-engine/api/vms/123?follow=disk_attachments.disk
```

That will result in the following response:

```
<vm id="123" href="/ovirt-engine/api/vms/123">
<disk_attachments>
  <disk_attachment id="456" href="/ovirt-engine/api/vms/123/diskattachments/456">
    <active>true</active>
    <bootable>true</bootable>
    <interface>virtio_scsi</interface>
    <pass_discard>false</pass_discard>
    <read_only>false</read_only>
```

```

<uses_scsi_reservation>>false</uses_scsi_reservation>
<disk id="789" href="/ovirt-engine/api/disks/789">
  <name>mydisk</name>
  <description>My disk</description>
  <actual_size>0</actual_size>
  <format>raw</format>
  <sparse>>true</sparse>
  <status>ok</status>
  <storage_type>image</storage_type>
  <total_size>0</total_size>
  ...
</disk>
</disk_attachment>
...
</disk_attachments>
...
</vm>

```

The path can be made as deep as needed. For example, to also get the statistics of the disks:

```
GET /ovirt-engine/api/vms/123?follow=disk_attachments.disk.statistics
```

Multiple path elements and multiple paths can be combined. For example, to get the disk attachments and the network interface cards, both with their statistics:

```
GET /ovirt-engine/api/vms/123?follow=disk_attachments.disk.statistics,nics.statistics
```



### IMPORTANT

Almost all the operations that retrieve objects support the **follow** parameter, but make sure to explicitly check the reference documentation, as some operations may not support it, or may provide advice on how to use it to get the best performance.



### IMPORTANT

Using the **follow** parameter moves the overhead from the client side to the server side. When you request additional data, the server must fetch and merge it with the basic data. That consumes CPU and memory in the server side, and will in most cases require additional database queries. That may adversely affect the performance of the server, especially in large scale environments. Make sure to test your application in a realistic environment, and use the **follow** parameter only when justified.

## 3.9. PERMISSIONS

Many of the services that manage a single object provide a reference to a **permissions** service that manages the permissions assigned to that object. Each permission contains links to the user or group, the role and the object. For example, the permissions assigned to a specific virtual machine can be retrieved sending a request like this:

```
GET /ovirt-engine/api/vms/123/permissions
```

The response body will look like this:

```
<permissions>
  <permission id="456" href="/ovirt-engine/api/vms/123/permissions/456">
    <user id="789" href="/ovirt-engine/api/users/789"/>
    <role id="abc" href="/ovirt-engine/api/roles/abc"/>
    <vm id="123" href="/ovirt-engine/api/vms/123"/>
  </permission>
  ...
</permissions>
```

A permission is added to an object sending a **POST** request with a permission representation to this service. Each new permission requires a role and a user.

### 3.10. HANDLING ERRORS

Some errors require further explanation beyond a standard HTTP status code. For example, the API reports an unsuccessful object state update or action with a **fault** in the response body. The fault contains the **reason** and **detail** attributes. For example, when the server receives a request to create a virtual machine without the mandatory **name** attribute it will respond with the following HTTP response line:

```
HTTP/1.1 400 Bad Request
```

And the following response body:

```
<fault>
  <reason>Incomplete parameters</reason>
  <detail>Vm [name] required for add</detail>
</fault>
```

## CHAPTER 4. QUICK START EXAMPLES

The examples in this section show you how to use the REST API to set up a basic Red Hat Virtualization environment and to create a virtual machine. In addition to the standard prerequisites, these examples require the following:

- A networked and configured Red Hat Virtualization installation.
- An ISO file containing the virtual machine operating system you want to install. This chapter uses [CentOS 7](#) for the installation ISO example.

The API examples use [curl](#) to demonstrate API requests with a client application. You can use any application that sends HTTP requests.



### IMPORTANT

The HTTP request headers in this example omit the **Host** and **Authorization** headers. However, these fields are mandatory and require data specific to your installation of Red Hat Virtualization.

The **curl** examples use **admin@internal** for the user name, **mypassword** for the password, **/etc/pki/ovirt-engine/ca.pem** for the certificate location, and **myengine.example.com** for the host name. You must replace them with the correct values for your environment.

Red Hat Virtualization generates a unique identifier for the **id** attribute for each resource. Identifier codes in this example will differ from the identifier codes in your Red Hat Virtualization environment.

In many examples, some attributes of the results returned by the API have been omitted, for brevity. See, for example, the [Cluster](#) reference for a complete list of attributes.

### 4.1. ACCESS API ENTRY POINT

The following request retrieves a representation of the main entry point for version 4 of the API:

```
GET /ovirt-engine/api HTTP/1.1
Version: 4
Accept: application/xml
```

The same request, but using the **/v4** URL prefix instead of the **Version** header:

```
GET /ovirt-engine/api/v4 HTTP/1.1
Accept: application/xml
```

The same request, using the **curl** command:

```
curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--request GET \
--header 'Version: 4' \
--header 'Accept: application/xml' \
--user 'admin@internal:mypassword' \
https://myengine.example.com/ovirt-engine/api
```

The result is an object of type [Api](#):

```
<api>
  <link href="/ovirt-engine/api/clusters" rel="clusters"/>
  <link href="/ovirt-engine/api/datacenters" rel="datacenters"/>
  ...
  <product_info>
    <name>oVirt Engine</name>
    <vendor>ovirt.org</vendor>
    <version>
      <build>0</build>
      <full_version>4.0.0-0.0.el7</full_version>
      <major>4</major>
      <minor>0</minor>
      <revision>0</revision>
    </version>
  </product_info>
  <special_objects>
    <blank_template href="..." id="..."/>
    <root_tag href="..." id="..."/>
  </special_objects>
  <summary>
    <hosts>
      <active>23</active>
      <total>30</total>
    </hosts>
    <storage_domains>
      <active>5</active>
      <total>6</total>
    </storage_domains>
    <users>
      <active>12</active>
      <total>102</total>
    </users>
    <vms>
      <active>253</active>
      <total>545</total>
    </vms>
  </summary>
  <time>2016-10-06T15:38:18.548+02:00</time>
</api>
```

## IMPORTANT

When neither the header nor the URL prefix are used, the server will automatically select a version. The default is version **4**. You can change the default version using the **ENGINE\_API\_DEFAULT\_VERSION** configuration parameter:

```
# echo "ENGINE_API_DEFAULT_VERSION=3" > \
/etc/ovirt-engine/engine.conf.d/99-set-default-version.conf
# systemctl restart ovirt-engine
```

Changing this parameter affects all users of the API that do not specify the version explicitly.

The entry point provides a user with links to the collections in a virtualization environment. The **rel** attribute of each collection link provides a reference point for each link. The next step in this example examines the data center collection, which is available through the **datacenters** link.

The entry point also contains other data such as [product\\_info](#), [special\\_objects](#) and [summary](#). This data is covered in chapters outside this example.

## 4.2. LIST DATA CENTERS

Red Hat Virtualization creates a **Default** data center on installation. This example uses the **Default** data center as the basis for the virtual environment.

The following request retrieves a representation of the data centers:

```
GET /ovirt-engine/api/datacenters HTTP/1.1
Accept: application/xml
```

The same request, using the **curl** command:

```
# curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--request GET \
--header 'Version: 4' \
--header 'Accept: application/xml' \
--user 'admin@internal:mypassword' \
https://myengine.example.com/ovirt-engine/api/datacenters
```

The result will be a list of objects of type [DataCenter](#):

```
<data_centers>
<data_center href="/ovirt-engine/api/datacenters/001" id="001">
  <name>Default</name>
  <description>The default Data Center</description>
  <link href="/ovirt-engine/api/datacenters/001/clusters" rel="clusters"/>
  <link href="/ovirt-engine/api/datacenters/001/storagedomains" rel="storagedomains"/>
  ...
  <local>>false</local>
  <quota_mode>disabled</quota_mode>
  <status>up</status>
  <supported_versions>
    <version>
      <major>4</major>
      <minor>0</minor>
    </version>
  </supported_versions>
  <version>
    <major>4</major>
    <minor>0</minor>
  </version>
</data_center>
...
</data_centers>
```

Note the **id** of your **Default** data center. It identifies this data center in relation to other resources of your virtual environment.

The data center also contains a link to the [service](#) that manages the storage domains attached to the data center:

```
<link href="/ovirt-engine/api/datacenters/001/storagedomains" rel="storagedomains"/>
```

That service is used to attach storage domains from the main **storagedomains** collection, which this example covers later.

### 4.3. LIST HOST CLUSTERS

Red Hat Virtualization creates a **Default** hosts cluster on installation. This example uses the **Default** cluster to group resources in your Red Hat Virtualization environment.

The following request retrieves a representation of the cluster collection:

```
GET /ovirt-engine/api/clusters HTTP/1.1
Accept: application/xml
```

The same request, using the **curl** command:

```
curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--request GET \
--header 'Version: 4' \
--header 'Accept: application/xml' \
--user 'admin@internal:mypassword' \
https://myengine.example.com/ovirt-engine/api/clusters
```

The result will be a list of objects of type [Cluster](#):

```
<clusters>
  <cluster href="/ovirt-engine/api/clusters/002" id="002">
    <name>Default</name>
    <description>The default server cluster</description>
    <link href="/ovirt-engine/api/clusters/002/networks" rel="networks"/>
    <link href="/ovirt-engine/api/clusters/002" rel="permissions"/>
    ...
    <cpu>
      <architecture>x86_64</architecture>
      <type>Intel Nehalem Family</type>
    </cpu>
    <version>
      <major>4</major>
      <minor>0</minor>
    </version>
    <data_center href="/ovirt-engine/api/datacenters/001" id="001"/>
  </cluster>
  ...
</clusters>
```

Note the **id** of your **Default** host cluster. It identifies this host cluster in relation to other resources of your virtual environment.

The **Default** cluster is associated with the **Default** data center through a relationship using the **id** and **href** attributes of the **data\_center** link:

```
<data_center href="/ovirt-engine/api/datacenters/001" id="001"/>
```

The **networks** link is a reference to the [service](#) that manages the networks associated to this cluster. The next section examines the networks collection in more detail.

## 4.4. LIST LOGICAL NETWORKS

Red Hat Virtualization creates a default **ovirtmgmt** network on installation. This network acts as the management network for Red Hat Virtualization Manager to access hosts.

This network is associated with the **Default** cluster and is a member of the **Default** data center. This example uses the **ovirtmgmt** network to connect the virtual machines.

The following request retrieves the list of logical networks:

```
GET /ovirt-engine/api/networks HTTP/1.1
Accept: application/xml
```

The same request, using the **curl** command:

```
# curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--request GET \
--header 'Version: 4' \
--header 'Accept: application/xml' \
--user 'admin@internal:mypassword' \
https://myengine.example.com/ovirt-engine/api/networks
```

The result will be a list of objects of type [Network](#):

```
<networks>
<network href="/ovirt-engine/api/networks/003" id="003">
  <name>ovirtmgmt</name>
  <description>Management Network</description>
  <link href="/ovirt-engine/api/networks/003/permissions" rel="permissions"/>
  <link href="/ovirt-engine/api/networks/003/vnicprofiles" rel="vnicprofiles"/>
  <link href="/ovirt-engine/api/networks/003/networklabels" rel="networklabels"/>
  <mtu>0</mtu>
  <stp>>false</stp>
  <usages>
    <usage>vm</usage>
  </usages>
  <data_center href="/ovirt-engine/api/datacenters/001" id="001"/>
</network>
...
</networks>
```

The **ovirtmgmt** network is attached to the **Default** data center through a relationship using the data center's **id**.

The **ovirtmgmt** network is also attached to the **Default** cluster through a relationship in the cluster's network sub-collection.

## 4.5. LIST HOSTS

This example retrieves the list of hosts and shows a host named **myhost** registered with the virtualization environment:

```
GET /ovirt-engine/api/hosts HTTP/1.1
Accept: application/xml
```

The same request, using the **curl** command:

```
# curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--request GET \
--header 'Version: 4' \
--header 'Accept: application/xml' \
--user 'admin@internal:mypassword' \
https://myengine.example.com/ovirt-engine/api/hosts
```

The result will be a list of objects of type [Host](#):

```
<hosts>
<host href="/ovirt-engine/api/hosts/004" id="004">
  <name>myhost</name>
  <link href="/ovirt-engine/api/hosts/004/nics" rel="nics"/>
  ...
  <address>node40.example.com</address>
  <cpu>
    <name>Intel Core Processor (Haswell, no TSX)</name>
    <speed>3600</speed>
    <topology>
      <cores>1</cores>
      <sockets>2</sockets>
      <threads>1</threads>
    </topology>
  </cpu>
  <memory>8371830784</memory>
  <os>
    <type>RHEL</type>
    <version>
      <full_version>7 - 2.1511.el7.centos.2.10</full_version>
      <major>7</major>
    </version>
  </os>
  <port>54321</port>
  <status>up</status>
  <cluster href="/ovirt-engine/api/clusters/002" id="002"/>
</host>
...
</hosts>
```

Note the **id** of your host. It identifies this host in relation to other resources of your virtual environment.

This host is a member of the **Default** cluster and accessing the **nics** sub-collection shows this host has a connection to the **ovirtmgmt** network.

## 4.6. CREATE NFS DATA STORAGE

An NFS data storage domain is an exported NFS share attached to a data center and provides storage for virtualized guest images. Creation of a new storage domain requires a **POST** request, with the storage domain representation included, sent to the URL of the storage domain collection.

You can enable the wipe after delete option by default on the storage domain. To configure this specify **wipe\_after\_delete** in the POST request. This option can be edited after the domain is created, but doing so will not change the wipe after delete property of disks that already exist.

The request should be like this:

```
POST /ovirt-engine/api/storagedomains HTTP/1.1
Accept: application/xml
Content-type: application/xml
```

And the request body should be like this:

```
<storage_domain>
  <name>mydata</name>
  <type>data</type>
  <description>My data</description>
  <storage>
    <type>nfs</type>
    <address>my nfs.example.com</address>
    <path>/exports/mydata</path>
  </storage>
  <host>
    <name>myhost</name>
  </host>
</storage_domain>
```

The same request, using the **curl** command:

```
# curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--user 'admin@internal:mypassword' \
--request POST \
--header 'Version: 4' \
--header 'Content-Type: application/xml' \
--header 'Accept: application/xml' \
--data '
<storage_domain>
  <name>mydata</name>
  <description>My data</description>
  <type>data</type>
  <storage>
    <type>nfs</type>
    <address>my nfs.example.com</address>
```

```

    <path>/exports/mydata</path>
  </storage>
</host>
  <name>myhost</name>
</host>
</storage_domain>
'\
https://myengine.example.com/ovirt-engine/api/storagedomains

```

The server uses host **myhost** to create a NFS data storage domain called **mydata** with an export path of **my nfs.example.com:/exports/mydata**. The API also returns the following representation of the newly created storage domain resource (of type [StorageDomain](#)):

```

<storage_domain href="/ovirt-engine/api/storagedomains/005" id="005">
  <name>mydata</name>
  <description>My data</description>
  <available>42949672960</available>
  <committed>0</committed>
  <master>>false</master>
  <status>unattached</status>
  <storage>
    <address>my nfs.example.com</address>
    <path>/exports/mydata</path>
    <type>nfs</type>
  </storage>
  <storage_format>v3</storage_format>
  <type>data</type>
  <used>9663676416</used>
</storage_domain>

```

## 4.7. CREATE NFS ISO STORAGE

An NFS ISO storage domain is a mounted NFS share attached to a data center and provides storage for DVD/CD-ROM ISO and virtual floppy disk (VFD) image files. Creation of a new storage domain requires a **POST** request, with the storage domain representation included, sent to the URL of the storage domain collection:

The request should be like this:

```

POST /ovirt-engine/api/storagedomains HTTP/1.1
Accept: application/xml
Content-type: application/xml

```

And the request body should be like this:

```

<storage_domain>
  <name>myisos</name>
  <description>My ISOs</description>
  <type>iso</type>
  <storage>
    <type>nfs</type>
    <address>my nfs.example.com</address>
    <path>/exports/myisos</path>
  </storage>

```

```

<host>
  <name>myhost</name>
</host>
</storage_domain>

```

The same request, using the **curl** command:

```

# curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--user 'admin@internal:mypassword' \
--request POST \
--header 'Version: 4' \
--header 'Content-Type: application/xml' \
--header 'Accept: application/xml' \
--data '
<storage_domain>
  <name>myisos</name>
  <description>My ISOs</description>
  <type>iso</type>
  <storage>
    <type>nfs</type>
    <address>my nfs.example.com</address>
    <path>/exports/myisos</path>
  </storage>
  <host>
    <name>myhost</name>
  </host>
</storage_domain>
'\
https://myengine.example.com/ovirt-engine/api/storagedomains

```

The server uses host **myhost** to create a NFS ISO storage domain called **myisos** with an export path of **my nfs.example.com:/exports/myisos**. The API also returns the following representation of the newly created storage domain resource (of type [StorageDomain](#)):

```

<storage_domain href="/ovirt-engine/api/storagedomains/006" id="006">
  <name>myiso</name>
  <description>My ISOs</description>
  <available>42949672960</available>
  <committed>0</committed>
  <master>>false</master>
  <status>unattached</status>
  <storage>
    <address>my nfs.example.com</address>
    <path>/exports/myisos</path>
    <type>nfs</type>
  </storage>
  <storage_format>v1</storage_format>
  <type>iso</type>
  <used>9663676416</used>
</storage_domain>

```

## 4.8. ATTACH STORAGE DOMAINS TO DATA CENTER

The following example attaches the **mydata** and **myisos** storage domains to the **Default** data center.

To attach the **mydata** storage domain, send a request like this:

```
POST /ovirt-engine/api/datacenters/001/storagedomains HTTP/1.1
Accept: application/xml
Content-type: application/xml
```

With a request body like this:

```
<storage_domain>
  <name>mydata</name>
</storage_domain>
```

The same request, using the **curl** command:

```
# curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--user 'admin@internal:mypassword' \
--request POST \
--header 'Version: 4' \
--header 'Content-Type: application/xml' \
--header 'Accept: application/xml' \
--data '
<storage_domain>
  <name>mydata</name>
</storage_domain>
' \
https://myengine.example.com/ovirt-engine/api/datacenters/001/storagedomains
```

To attach the **myisos** storage domain, send a request like this:

```
POST /ovirt-engine/api/datacenters/001/storagedomains HTTP/1.1
Accept: application/xml
Content-type: application/xml
```

With a request body like this:

```
<storage_domain>
  <name>myisos</name>
</storage_domain>
```

The same request, using the **curl** command:

```
# curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--user 'admin@internal:mypassword' \
--request POST \
--header 'Version: 4' \
--header 'Content-Type: application/xml' \
--header 'Accept: application/xml' \
--data '
<storage_domain>
  <name>myisos</name>
' \
https://myengine.example.com/ovirt-engine/api/datacenters/001/storagedomains
```

```

</storage_domain>
'\
https://myengine.example.com/ovirt-engine/api/datacenters/001/storagedomains

```

## 4.9. CREATE VIRTUAL MACHINE

The following example creates a virtual machine called **myvm** on the **Default** cluster using the virtualization environment's **Blank** template as a basis. The request also defines the virtual machine's memory as 512 MiB and sets the boot device to a virtual hard disk.

The request should be contain an object of type [Vm](#) describing the virtual machine to create:

```

POST /ovirt-engine/api/vms HTTP/1.1
Accept: application/xml
Content-type: application/xml

```

And the request body should be like this:

```

<vm>
  <name>myvm</name>
  <description>My VM</description>
  <cluster>
    <name>Default</name>
  </cluster>
  <template>
    <name>Blank</name>
  </template>
  <memory>536870912</memory>
  <os>
    <boot>
      <devices>
        <device>hd</device>
      </devices>
    </boot>
  </os>
</vm>

```

The same request, using the **curl** command:

```

# curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--user 'admin@internal:mypassword' \
--request POST \
--header 'Version: 4' \
--header 'Content-Type: application/xml' \
--header 'Accept: application/xml' \
--data '
<vm>
  <name>myvm</name>
  <description>My VM</description>
  <cluster>
    <name>Default</name>
  </cluster>
  <template>

```

```

    <name>Blank</name>
  </template>
</memory>536870912</memory>
<os>
  <boot>
    <devices>
      <device>hd</device>
    </devices>
  </boot>
</os>
</vm>
'\
https://myengine.example.com/ovirt-engine/api/vms

```

The response body will be an object of the `Vm` type:

```

<vm href="/ovirt-engine/api/vms/007" id="007">
  <name>myvm</name>
  <link href="/ovirt-engine/api/vms/007/diskattachments" rel="diskattachments"/>
  <link href="/ovirt-engine/api/vms/007/nics" rel="nics"/>
  ...
  <cpu>
    <architecture>x86_64</architecture>
    <topology>
      <cores>1</cores>
      <sockets>1</sockets>
      <threads>1</threads>
    </topology>
  </cpu>
  <memory>1073741824</memory>
  <os>
    <boot>
      <devices>
        <device>hd</device>
      </devices>
    </boot>
    <type>other</type>
  </os>
  <type>desktop</type>
  <cluster href="/ovirt-engine/api/clusters/002" id="002"/>
  <status>down</status>
  <original_template href="/ovirt-engine/api/templates/000" id="00"/>
  <template href="/ovirt-engine/api/templates/000" id="000"/>
</vm>

```

## 4.10. CREATE A VIRTUAL MACHINE NIC

The following example creates a virtual network interface to connect the example virtual machine to the **ovirtmgmt** network.

The request should be like this:

```

POST /ovirt-engine/api/vms/007/nics HTTP/1.1
Content-Type: application/xml
Accept: application/xml

```

The request body should contain an object of type [Nic](#) describing the NIC to be created:

```
<nic>
  <name>mynic</name>
  <description>My network interface card</description>
</nic>
```

The same request, using the **curl** command:

```
# curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--user 'admin@internal:mypassword' \
--request POST \
--header 'Version: 4' \
--header 'Content-Type: application/xml' \
--header 'Accept: application/xml' \
--data '
<nic>
  <name>mynic</name>
  <description>My network interface card</description>
</nic>
'\
https://myengine.example.com/ovirt-engine/api/vms/007/nics
```

## 4.11. CREATE VIRTUAL MACHINE DISK

The following example creates an 8 GiB *copy-on-write* disk for the example virtual machine.

The request should be like this:

```
POST /ovirt-engine/api/vms/007/diskattachments HTTP/1.1
Content-Type: application/xml
Accept: application/xml
```

The request body should be an object of type [DiskAttachment](#) describing the disk and how it will be attached to the virtual machine:

```
<disk_attachment>
  <bootable>>false</bootable>
  <interface>virtio</interface>
  <active>>true</active>
  <disk>
    <description>My disk</description>
    <format>cow</format>
    <name>mydisk</name>
    <provisioned_size>8589934592</provisioned_size>
    <storage_domains>
      <storage_domain>
        <name>mydata</name>
      </storage_domain>
    </storage_domains>
  </disk>
</disk_attachment>
```

The same request, using the **curl** command:

```
# curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--user 'admin@internal:mypassword' \
--request POST \
--header 'Version: 4' \
--header 'Content-Type: application/xml' \
--header 'Accept: application/xml' \
--data '
<disk_attachment>
  <bootable>>false</bootable>
  <interface>virtio</interface>
  <active>>true</active>
  <disk>
    <description>My disk</description>
    <format>cow</format>
    <name>mydisk</name>
    <provisioned_size>8589934592</provisioned_size>
    <storage_domains>
      <storage_domain>
        <name>mydata</name>
      </storage_domain>
    </storage_domains>
  </disk>
</disk_attachment>
'\
https://myengine.example.com/ovirt-engine/api/vms/007/diskattachments
```

The **storage\_domains** attribute tells the API to store the disk on the **mydata** storage domain.

## 4.12. ATTACH ISO IMAGE TO VIRTUAL MACHINE

The boot media for the following virtual machine example requires a CD-ROM or DVD ISO image for an operating system installation. This example uses a CentOS 7 image.

ISO images must be available in the **myisos** ISO domain for the virtual machines to use. You can use [ImageTransfer](#) to create an image transfer and [ImageTransfers](#) to upload the ISO image.

Once the ISO image is uploaded, an API can be used to request the list of files from the ISO storage domain:

```
GET /ovirt-engine/api/storagedomains/006/files HTTP/1.1
Accept: application/xml
```

The same request, using the **curl** command:

```
# curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--user 'admin@internal:mypassword' \
--request GET \
--header 'Version: 4' \
--header 'Accept: application/xml' \
https://myengine.example.com/ovirt-engine/api/storagedomains/006/files
```

The server returns the following list of objects of type [File](#), one for each available ISO (or floppy) image:

```
<files>
  <file href="..." id="CentOS-7-x86_64-Minimal.iso">
    <name>CentOS-7-x86_64-Minimal.iso</name>
  </file>
  ...
</files>
```

An API user attaches the **CentOS-7-x86\_64-Minimal.iso** to the example virtual machine. Attaching an ISO image is equivalent to using the *Change CD* button in the administration or user portal applications.

The request should be like this:

```
PUT /ovirt-engine/api/vms/007/cdroms/00000000-0000-0000-0000-000000000000 HTTP/1.1
Accept: application/xml
Content-type: application/xml
```

The request body should be an object of type [Cdrom](#) containing an inner **file** attribute to indicate the identifier of the ISO (or floppy) image:

```
<cdrom>
  <file id="CentOS-7-x86_64-Minimal.iso"/>
</cdrom>
```

The same request, using the **curl** command:

```
# curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--user 'admin@internal:mypassword' \
--request PUT \
--header 'Version: 4' \
--header 'Content-Type: application/xml' \
--header 'Accept: application/xml' \
--data '
<cdrom>
  <file id="CentOS-7-x86_64-Minimal.iso"/>
</cdrom>
' \
https://myengine.example.com/ovirt-engine/api/vms/007/cdroms/00000000-0000-0000-0000-000000000000
```

For more details see the documentation of the [service](#) that manages virtual machine CD-ROMS.

## 4.13. START THE VIRTUAL MACHINE

The virtual environment is complete and the virtual machine contains all necessary components to function. This example starts the virtual machine using the [start](#) method.

The request should be like this:

```
POST /ovirt-engine/api/vms/007/start HTTP/1.1
Accept: application/xml
Content-type: application/xml
```

The request body should be like this:

```
<action>
  <vm>
    <os>
      <boot>
        <devices>
          <device>cdrom</device>
        </devices>
      </boot>
    </os>
  </vm>
</action>
```

The same request, using the **curl** command:

```
# curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--user 'admin@internal:mypassword' \
--request POST \
--header 'Version: 4' \
--header 'Content-Type: application/xml' \
--header 'Accept: application/xml' \
--data '
<action>
  <vm>
    <os>
      <boot>
        <devices>
          <device>cdrom</device>
        </devices>
      </boot>
    </os>
  </vm>
</action>
'\
https://myengine.example.com/ovirt-engine/api/vms/007/start
```

The additional request body sets the virtual machine's boot device to CD-ROM for this boot only. This enables the virtual machine to install the operating system from the attached ISO image. The boot device reverts back to disk for all future boots.

## CHAPTER 5. REQUESTS

This section enumerates all the requests that are available in the API.

- [POST /affinitylabels](#)
- [GET /affinitylabels](#)
- [GET /affinitylabels/{label:id}](#)
- [PUT /affinitylabels/{label:id}](#)
- [DELETE /affinitylabels/{label:id}](#)
- [POST /affinitylabels/{label:id}/hosts](#)
- [GET /affinitylabels/{label:id}/hosts](#)
- [DELETE /affinitylabels/{label:id}/hosts/{host:id}](#)
- [GET /affinitylabels/{label:id}/hosts/{host:id}](#)
- [POST /affinitylabels/{label:id}/vms](#)
- [GET /affinitylabels/{label:id}/vms](#)
- [DELETE /affinitylabels/{label:id}/vms/{vm:id}](#)
- [GET /affinitylabels/{label:id}/vms/{vm:id}](#)
- [POST /bookmarks](#)
- [GET /bookmarks](#)
- [GET /bookmarks/{bookmark:id}](#)
- [PUT /bookmarks/{bookmark:id}](#)
- [DELETE /bookmarks/{bookmark:id}](#)
- [GET /clusterlevels](#)
- [GET /clusterlevels/{level:id}](#)
- [GET /clusterlevels/{level:id}/clusterfeatures](#)
- [GET /clusterlevels/{level:id}/clusterfeatures/{feature:id}](#)
- [POST /clusters](#)
- [GET /clusters](#)
- [GET /clusters/{cluster:id}](#)
- [PUT /clusters/{cluster:id}](#)
- [DELETE /clusters/{cluster:id}](#)

- [POST /clusters/{cluster:id}/affinitygroups](#)
- [GET /clusters/{cluster:id}/affinitygroups](#)
- [GET /clusters/{cluster:id}/affinitygroups/{group:id}](#)
- [PUT /clusters/{cluster:id}/affinitygroups/{group:id}](#)
- [DELETE /clusters/{cluster:id}/affinitygroups/{group:id}](#)
- [POST /clusters/{cluster:id}/affinitygroups/{group:id}/hostlabels](#)
- [GET /clusters/{cluster:id}/affinitygroups/{group:id}/hostlabels](#)
- [DELETE /clusters/{cluster:id}/affinitygroups/{group:id}/hostlabels/{label:id}](#)
- [POST /clusters/{cluster:id}/affinitygroups/{group:id}/hosts](#)
- [GET /clusters/{cluster:id}/affinitygroups/{group:id}/hosts](#)
- [DELETE /clusters/{cluster:id}/affinitygroups/{group:id}/hosts/{host:idorname}](#)
- [POST /clusters/{cluster:id}/affinitygroups/{group:id}/vmlabels](#)
- [GET /clusters/{cluster:id}/affinitygroups/{group:id}/vmlabels](#)
- [DELETE /clusters/{cluster:id}/affinitygroups/{group:id}/vmlabels/{label:id}](#)
- [POST /clusters/{cluster:id}/affinitygroups/{group:id}/vms](#)
- [GET /clusters/{cluster:id}/affinitygroups/{group:id}/vms](#)
- [DELETE /clusters/{cluster:id}/affinitygroups/{group:id}/vms/{vm:id}](#)
- [POST /clusters/{cluster:id}/cpuprofiles](#)
- [GET /clusters/{cluster:id}/cpuprofiles](#)
- [GET /clusters/{cluster:id}/cpuprofiles/{profile:id}](#)
- [DELETE /clusters/{cluster:id}/cpuprofiles/{profile:id}](#)
- [GET /clusters/{cluster:id}/enabledfeatures](#)
- [POST /clusters/{cluster:id}/enabledfeatures](#)
- [GET /clusters/{cluster:id}/enabledfeatures/{feature:id}](#)
- [DELETE /clusters/{cluster:id}/enabledfeatures/{feature:id}](#)
- [GET /clusters/{cluster:id}/externalnetworkproviders](#)
- [GET /clusters/{cluster:id}/glusterhooks](#)
- [GET /clusters/{cluster:id}/glusterhooks/{hook:id}](#)
- [DELETE /clusters/{cluster:id}/glusterhooks/{hook:id}](#)

- `POST /clusters/{cluster:id}/glusterhooks/{hook:id}/disable`
- `POST /clusters/{cluster:id}/glusterhooks/{hook:id}/enable`
- `POST /clusters/{cluster:id}/glusterhooks/{hook:id}/resolve`
- `POST /clusters/{cluster:id}/glustervolumes`
- `GET /clusters/{cluster:id}/glustervolumes`
- `GET /clusters/{cluster:id}/glustervolumes/{volume:id}`
- `DELETE /clusters/{cluster:id}/glustervolumes/{volume:id}`
- `POST /clusters/{cluster:id}/glustervolumes/{volume:id}/getprofilestatistics`
- `POST /clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks`
- `GET /clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks`
- `DELETE /clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks`
- `POST /clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks/activate`
- `POST /clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks/migrate`
- `POST /clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks/stopmigrate`
- `GET /clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks/{brick:id}`
- `DELETE /clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks/{brick:id}`
- `POST /clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks/{brick:id}/replace`
- `GET /clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks/{brick:id}/statistics`
- `GET /clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks/{brick:id}/statistics/{statistic:id}`
- `POST /clusters/{cluster:id}/glustervolumes/{volume:id}/rebalance`
- `POST /clusters/{cluster:id}/glustervolumes/{volume:id}/resetalloptions`
- `POST /clusters/{cluster:id}/glustervolumes/{volume:id}/resetoption`
- `POST /clusters/{cluster:id}/glustervolumes/{volume:id}/setoption`
- `POST /clusters/{cluster:id}/glustervolumes/{volume:id}/start`
- `POST /clusters/{cluster:id}/glustervolumes/{volume:id}/startprofile`
- `GET /clusters/{cluster:id}/glustervolumes/{volume:id}/statistics`
- `GET /clusters/{cluster:id}/glustervolumes/{volume:id}/statistics/{statistic:id}`
- `POST /clusters/{cluster:id}/glustervolumes/{volume:id}/stop`
- `POST /clusters/{cluster:id}/glustervolumes/{volume:id}/stopprofile`

- [POST /clusters/{cluster:id}/glustervolumes/{volume:id}/stoprebalance](#)
- [GET /clusters/{cluster:id}/networkfilters](#)
- [GET /clusters/{cluster:id}/networkfilters/{networkfilter:id}](#)
- [POST /clusters/{cluster:id}/networks](#)
- [GET /clusters/{cluster:id}/networks](#)
- [GET /clusters/{cluster:id}/networks/{network:id}](#)
- [DELETE /clusters/{cluster:id}/networks/{network:id}](#)
- [PUT /clusters/{cluster:id}/networks/{network:id}](#)
- [POST /clusters/{cluster:id}/permissions](#)
- [GET /clusters/{cluster:id}/permissions](#)
- [GET /clusters/{cluster:id}/permissions/{permission:id}](#)
- [DELETE /clusters/{cluster:id}/permissions/{permission:id}](#)
- [POST /clusters/{cluster:id}/refreshglusterhealstatus](#)
- [POST /clusters/{cluster:id}/resetemulatedmachine](#)
- [POST /clusters/{cluster:id}/syncallnetworks](#)
- [POST /clusters/{cluster:id}/upgrade](#)
- [POST /cpuprofiles](#)
- [GET /cpuprofiles](#)
- [GET /cpuprofiles/{profile:id}](#)
- [PUT /cpuprofiles/{profile:id}](#)
- [DELETE /cpuprofiles/{profile:id}](#)
- [POST /cpuprofiles/{profile:id}/permissions](#)
- [GET /cpuprofiles/{profile:id}/permissions](#)
- [GET /cpuprofiles/{profile:id}/permissions/{permission:id}](#)
- [DELETE /cpuprofiles/{profile:id}/permissions/{permission:id}](#)
- [POST /datacenters](#)
- [GET /datacenters](#)
- [GET /datacenters/{datacenter:id}](#)
- [PUT /datacenters/{datacenter:id}](#)

- DELETE /datacenters/{datacenter:id}
- POST /datacenters/{datacenter:id}/cleanfinishedtasks
- POST /datacenters/{datacenter:id}/clusters
- GET /datacenters/{datacenter:id}/clusters
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}
- PUT /datacenters/{datacenter:id}/clusters/{cluster:id}
- DELETE /datacenters/{datacenter:id}/clusters/{cluster:id}
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}
- PUT /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}
- DELETE /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}/hostlabels
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}/hostlabels
- DELETE  
/datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}/hostlabels/{label:id}
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}/hosts
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}/hosts
- DELETE  
/datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}/hosts/{host:idorname}
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}/vmlabels
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}/vmlabels
- DELETE  
/datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}/vmlabels/{label:id}
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}/vms
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}/vms
- DELETE  
/datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}/vms/{vm:id}
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/cpuprofiles
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/cpuprofiles
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/cpuprofiles/{profile:id}

- DELETE /datacenters/{datacenter:id}/clusters/{cluster:id}/cpuprofiles/{profile:id}
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/enabledfeatures
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/enabledfeatures
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/enabledfeatures/{feature:id}
- DELETE /datacenters/{datacenter:id}/clusters/{cluster:id}/enabledfeatures/{feature:id}
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/externalnetworkproviders
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/glusterhooks
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/glusterhooks/{hook:id}
- DELETE /datacenters/{datacenter:id}/clusters/{cluster:id}/glusterhooks/{hook:id}
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/glusterhooks/{hook:id}/disable
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/glusterhooks/{hook:id}/enable
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/glusterhooks/{hook:id}/resolve
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}
- DELETE /datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}
- POST  
/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/getprofilestatistics
- POST  
/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks
- GET  
/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks
- DELETE  
/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks
- POST  
/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks/activ
- POST  
/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks/migr
- POST  
/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks/stop
- GET  
/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks/{bric
- DELETE  
/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks/{bric

- POST  
/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks/{brick:id}
- GET  
/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks/{brick:id}
- GET  
/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks/{brick:id}
- POST  
/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/rebalance
- POST  
/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/resetalloptions
- POST  
/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/resetoption
- POST  
/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/setoption
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/start
- POST  
/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/startprofile
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/statistics
- GET  
/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/statistics/{statistic}
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/stop
- POST  
/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/stopprofile
- POST  
/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/stoprebalance
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/networkfilters
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/networkfilters/{networkfilter:id}
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/networks
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/networks
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/networks/{network:id}
- DELETE /datacenters/{datacenter:id}/clusters/{cluster:id}/networks/{network:id}
- PUT /datacenters/{datacenter:id}/clusters/{cluster:id}/networks/{network:id}
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/permissions
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/permissions
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/permissions/{permission:id}

- DELETE /datacenters/{datacenter:id}/clusters/{cluster:id}/permissions/{permission:id}
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/refreshglusterhealstatus
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/resetemulatedmachine
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/syncallnetworks
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/upgrade
- POST /datacenters/{datacenter:id}/iscsibonds
- GET /datacenters/{datacenter:id}/iscsibonds
- GET /datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}
- PUT /datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}
- DELETE /datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}
- POST /datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/networks
- GET /datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/networks
- GET /datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/networks/{network:id}
- PUT /datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/networks/{network:id}
- DELETE /datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/networks/{network:id}
- POST  
/datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/networks/{network:id}/networklabels
- GET  
/datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/networks/{network:id}/networklabels
- GET  
/datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/networks/{network:id}/networklabels/{lab}
- DELETE  
/datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/networks/{network:id}/networklabels/{lab}
- POST  
/datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/networks/{network:id}/permissions
- GET  
/datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/networks/{network:id}/permissions
- GET  
/datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/networks/{network:id}/permissions/{perr}
- DELETE  
/datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/networks/{network:id}/permissions/{perr}
- POST  
/datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/networks/{network:id}/vnicprofiles

- GET  
/datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/networks/{network:id}/vnicprofiles
- GET  
/datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/networks/{network:id}/vnicprofiles/{profil
- DELETE  
/datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/networks/{network:id}/vnicprofiles/{profil
- POST  
/datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/networks/{network:id}/vnicprofiles/{profil
- GET  
/datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/networks/{network:id}/vnicprofiles/{profil
- GET  
/datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/networks/{network:id}/vnicprofiles/{profil
- DELETE  
/datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/networks/{network:id}/vnicprofiles/{profil
- POST /datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/storageserverconnections
- GET /datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/storageserverconnections
- GET  
/datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/storageserverconnections/{storageconne
- PUT  
/datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/storageserverconnections/{storageconne
- DELETE  
/datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/storageserverconnections/{storageconne
- POST /datacenters/{datacenter:id}/networks
- GET /datacenters/{datacenter:id}/networks
- GET /datacenters/{datacenter:id}/networks/{network:id}
- DELETE /datacenters/{datacenter:id}/networks/{network:id}
- PUT /datacenters/{datacenter:id}/networks/{network:id}
- POST /datacenters/{datacenter:id}/permissions
- GET /datacenters/{datacenter:id}/permissions
- GET /datacenters/{datacenter:id}/permissions/{permission:id}
- DELETE /datacenters/{datacenter:id}/permissions/{permission:id}
- POST /datacenters/{datacenter:id}/qoss
- GET /datacenters/{datacenter:id}/qoss
- GET /datacenters/{datacenter:id}/qoss/{qos:id}

- [PUT /datacenters/{datacenter:id}/qoss/{qos:id}](#)
- [DELETE /datacenters/{datacenter:id}/qoss/{qos:id}](#)
- [POST /datacenters/{datacenter:id}/quotas](#)
- [GET /datacenters/{datacenter:id}/quotas](#)
- [GET /datacenters/{datacenter:id}/quotas/{quota:id}](#)
- [PUT /datacenters/{datacenter:id}/quotas/{quota:id}](#)
- [DELETE /datacenters/{datacenter:id}/quotas/{quota:id}](#)
- [POST /datacenters/{datacenter:id}/quotas/{quota:id}/permissions](#)
- [GET /datacenters/{datacenter:id}/quotas/{quota:id}/permissions](#)
- [GET /datacenters/{datacenter:id}/quotas/{quota:id}/permissions/{permission:id}](#)
- [DELETE /datacenters/{datacenter:id}/quotas/{quota:id}/permissions/{permission:id}](#)
- [POST /datacenters/{datacenter:id}/quotas/{quota:id}/quotaclusterlimits](#)
- [GET /datacenters/{datacenter:id}/quotas/{quota:id}/quotaclusterlimits](#)
- [GET /datacenters/{datacenter:id}/quotas/{quota:id}/quotaclusterlimits/{limit:id}](#)
- [DELETE /datacenters/{datacenter:id}/quotas/{quota:id}/quotaclusterlimits/{limit:id}](#)
- [POST /datacenters/{datacenter:id}/quotas/{quota:id}/quotastorageimits](#)
- [GET /datacenters/{datacenter:id}/quotas/{quota:id}/quotastorageimits](#)
- [GET /datacenters/{datacenter:id}/quotas/{quota:id}/quotastorageimits/{limit:id}](#)
- [DELETE /datacenters/{datacenter:id}/quotas/{quota:id}/quotastorageimits/{limit:id}](#)
- [POST /datacenters/{datacenter:id}/setmaster](#)
- [POST /datacenters/{datacenter:id}/storagedomains](#)
- [GET /datacenters/{datacenter:id}/storagedomains](#)
- [GET /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}](#)
- [DELETE /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}](#)
- [POST /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/activate](#)
- [POST /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/deactivate](#)
- [POST /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks](#)
- [GET /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks](#)
- [PUT /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}](#)

- GET /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}
- DELETE /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}
- POST /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}/copy
- POST /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}/export
- POST /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}/move
- POST /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}/permissions
- GET /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}/permissions
- GET /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}/permissions/{permission:id}
- DELETE /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}/permissions/{permission:id}
- POST /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}/register
- POST /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}/sparsify
- GET /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}/statistics
- GET /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}/statistics/{statistic:id}
- POST /diskprofiles
- GET /diskprofiles
- GET /diskprofiles/{diskprofile:id}
- PUT /diskprofiles/{diskprofile:id}
- DELETE /diskprofiles/{diskprofile:id}
- POST /diskprofiles/{diskprofile:id}/permissions
- GET /diskprofiles/{diskprofile:id}/permissions
- GET /diskprofiles/{diskprofile:id}/permissions/{permission:id}
- DELETE /diskprofiles/{diskprofile:id}/permissions/{permission:id}
- POST /disks
- GET /disks
- PUT /disks/{disk:id}

- [GET /disks/{disk:id}](#)
- [DELETE /disks/{disk:id}](#)
- [POST /disks/{disk:id}/convert](#)
- [POST /disks/{disk:id}/copy](#)
- [GET /disks/{disk:id}/disksnapshots](#)
- [GET /disks/{disk:id}/disksnapshots/{snapshot:id}](#)
- [DELETE /disks/{disk:id}/disksnapshots/{snapshot:id}](#)
- [POST /disks/{disk:id}/export](#)
- [POST /disks/{disk:id}/move](#)
- [POST /disks/{disk:id}/permissions](#)
- [GET /disks/{disk:id}/permissions](#)
- [GET /disks/{disk:id}/permissions/{permission:id}](#)
- [DELETE /disks/{disk:id}/permissions/{permission:id}](#)
- [POST /disks/{disk:id}/reduce](#)
- [POST /disks/{disk:id}/refreshlun](#)
- [POST /disks/{disk:id}/sparsify](#)
- [GET /disks/{disk:id}/statistics](#)
- [GET /disks/{disk:id}/statistics/{statistic:id}](#)
- [GET /domains](#)
- [GET /domains/{domain:id}](#)
- [GET /domains/{domain:id}/groups](#)
- [GET /domains/{domain:id}/groups/{group:id}](#)
- [GET /domains/{domain:id}/users](#)
- [GET /domains/{domain:id}/users/{user:id}](#)
- [POST /events](#)
- [GET /events](#)
- [POST /events/undelete](#)
- [GET /events/{event:id}](#)
- [DELETE /events/{event:id}](#)

- [POST /externalhostproviders](#)
- [GET /externalhostproviders](#)
- [GET /externalhostproviders/{provider:id}](#)
- [PUT /externalhostproviders/{provider:id}](#)
- [DELETE /externalhostproviders/{provider:id}](#)
- [GET /externalhostproviders/{provider:id}/certificates](#)
- [GET /externalhostproviders/{provider:id}/certificates/{certificate:id}](#)
- [GET /externalhostproviders/{provider:id}/computeresources](#)
- [GET /externalhostproviders/{provider:id}/computeresources/{resource:id}](#)
- [GET /externalhostproviders/{provider:id}/discoveredhosts](#)
- [GET /externalhostproviders/{provider:id}/discoveredhosts/{host:id}](#)
- [GET /externalhostproviders/{provider:id}/hostgroups](#)
- [GET /externalhostproviders/{provider:id}/hostgroups/{group:id}](#)
- [GET /externalhostproviders/{provider:id}/hosts](#)
- [GET /externalhostproviders/{provider:id}/hosts/{host:id}](#)
- [POST /externalhostproviders/{provider:id}/importcertificates](#)
- [POST /externalhostproviders/{provider:id}/testconnectivity](#)
- [POST /externaltemplateimports](#)
- [POST /externalvmimports](#)
- [POST /groups](#)
- [GET /groups](#)
- [GET /groups/{group:id}](#)
- [DELETE /groups/{group:id}](#)
- [POST /groups/{group:id}/permissions](#)
- [GET /groups/{group:id}/permissions](#)
- [GET /groups/{group:id}/permissions/{permission:id}](#)
- [DELETE /groups/{group:id}/permissions/{permission:id}](#)
- [GET /groups/{group:id}/roles](#)
- [GET /groups/{group:id}/roles/{role:id}](#)

- DELETE /groups/{group:id}/roles/{role:id}
- PUT /groups/{group:id}/roles/{role:id}
- POST /groups/{group:id}/roles/{role:id}/permits
- GET /groups/{group:id}/roles/{role:id}/permits
- GET /groups/{group:id}/roles/{role:id}/permits/{permit:id}
- DELETE /groups/{group:id}/roles/{role:id}/permits/{permit:id}
- POST /groups/{group:id}/tags
- GET /groups/{group:id}/tags
- GET /groups/{group:id}/tags/{tag:id}
- DELETE /groups/{group:id}/tags/{tag:id}
- POST /hosts
- GET /hosts
- GET /hosts/{host:id}
- PUT /hosts/{host:id}
- DELETE /hosts/{host:id}
- POST /hosts/{host:id}/activate
- POST /hosts/{host:id}/affinitylabels
- GET /hosts/{host:id}/affinitylabels
- GET /hosts/{host:id}/affinitylabels/{label:id}
- DELETE /hosts/{host:id}/affinitylabels/{label:id}
- POST /hosts/{host:id}/approve
- POST /hosts/{host:id}/commitnetconfig
- POST /hosts/{host:id}/copyhostnetworks
- GET /hosts/{host:id}/cpuunits
- POST /hosts/{host:id}/deactivate
- GET /hosts/{host:id}/devices
- GET /hosts/{host:id}/devices/{device:id}
- POST /hosts/{host:id}/discoveriscsi
- POST /hosts/{host:id}/enrollcertificate

- GET /hosts/{host:id}/externalnetworkproviderconfigurations
- GET /hosts/{host:id}/externalnetworkproviderconfigurations/{configuration:id}
- POST /hosts/{host:id}/fence
- POST /hosts/{host:id}/fenceagents
- GET /hosts/{host:id}/fenceagents
- GET /hosts/{host:id}/fenceagents/{agent:id}
- PUT /hosts/{host:id}/fenceagents/{agent:id}
- DELETE /hosts/{host:id}/fenceagents/{agent:id}
- POST /hosts/{host:id}/forceselectspm
- GET /hosts/{host:id}/hooks
- GET /hosts/{host:id}/hooks/{hook:id}
- POST /hosts/{host:id}/install
- POST /hosts/{host:id}/iscsidiscover
- POST /hosts/{host:id}/iscsilogin
- GET /hosts/{host:id}/katelloerrata
- GET /hosts/{host:id}/katelloerrata/{katelloerratum:id}
- POST /hosts/{host:id}/networkattachments
- GET /hosts/{host:id}/networkattachments
- GET /hosts/{host:id}/networkattachments/{attachment:id}
- PUT /hosts/{host:id}/networkattachments/{attachment:id}
- DELETE /hosts/{host:id}/networkattachments/{attachment:id}
- GET /hosts/{host:id}/nics
- GET /hosts/{host:id}/nics/{nic:id}
- GET /hosts/{host:id}/nics/{nic:id}/linklayerdiscoveryprotocolelements
- POST /hosts/{host:id}/nics/{nic:id}/networkattachments
- GET /hosts/{host:id}/nics/{nic:id}/networkattachments
- GET /hosts/{host:id}/nics/{nic:id}/networkattachments/{attachment:id}
- PUT /hosts/{host:id}/nics/{nic:id}/networkattachments/{attachment:id}
- DELETE /hosts/{host:id}/nics/{nic:id}/networkattachments/{attachment:id}

- [POST /hosts/{host:id}/nics/{nic:id}/networklabels](#)
- [GET /hosts/{host:id}/nics/{nic:id}/networklabels](#)
- [GET /hosts/{host:id}/nics/{nic:id}/networklabels/{label:id}](#)
- [DELETE /hosts/{host:id}/nics/{nic:id}/networklabels/{label:id}](#)
- [GET /hosts/{host:id}/nics/{nic:id}/statistics](#)
- [GET /hosts/{host:id}/nics/{nic:id}/statistics/{statistic:id}](#)
- [POST /hosts/{host:id}/nics/{nic:id}/updatevirtualfunctionsconfiguration](#)
- [POST /hosts/{host:id}/nics/{nic:id}/virtualfunctionallowedlabels](#)
- [GET /hosts/{host:id}/nics/{nic:id}/virtualfunctionallowedlabels](#)
- [GET /hosts/{host:id}/nics/{nic:id}/virtualfunctionallowedlabels/{label:id}](#)
- [DELETE /hosts/{host:id}/nics/{nic:id}/virtualfunctionallowedlabels/{label:id}](#)
- [POST /hosts/{host:id}/nics/{nic:id}/virtualfunctionallowednetworks](#)
- [GET /hosts/{host:id}/nics/{nic:id}/virtualfunctionallowednetworks](#)
- [GET /hosts/{host:id}/nics/{nic:id}/virtualfunctionallowednetworks/{network:id}](#)
- [DELETE /hosts/{host:id}/nics/{nic:id}/virtualfunctionallowednetworks/{network:id}](#)
- [GET /hosts/{host:id}/numanodes](#)
- [GET /hosts/{host:id}/numanodes/{node:id}](#)
- [GET /hosts/{host:id}/numanodes/{node:id}/statistics](#)
- [GET /hosts/{host:id}/numanodes/{node:id}/statistics/{statistic:id}](#)
- [POST /hosts/{host:id}/permissions](#)
- [GET /hosts/{host:id}/permissions](#)
- [GET /hosts/{host:id}/permissions/{permission:id}](#)
- [DELETE /hosts/{host:id}/permissions/{permission:id}](#)
- [POST /hosts/{host:id}/refresh](#)
- [POST /hosts/{host:id}/setupnetworks](#)
- [GET /hosts/{host:id}/statistics](#)
- [GET /hosts/{host:id}/statistics/{statistic:id}](#)
- [GET /hosts/{host:id}/storage](#)
- [GET /hosts/{host:id}/storage/{storage:id}](#)

- [POST /hosts/{host:id}/storageconnectionextensions](#)
- [GET /hosts/{host:id}/storageconnectionextensions](#)
- [GET /hosts/{host:id}/storageconnectionextensions/{storageconnectionextension:id}](#)
- [PUT /hosts/{host:id}/storageconnectionextensions/{storageconnectionextension:id}](#)
- [DELETE /hosts/{host:id}/storageconnectionextensions/{storageconnectionextension:id}](#)
- [POST /hosts/{host:id}/syncallnetworks](#)
- [POST /hosts/{host:id}/tags](#)
- [GET /hosts/{host:id}/tags](#)
- [GET /hosts/{host:id}/tags/{tag:id}](#)
- [DELETE /hosts/{host:id}/tags/{tag:id}](#)
- [GET /hosts/{host:id}/unmanagednetworks](#)
- [GET /hosts/{host:id}/unmanagednetworks/{unmanagednetwork:id}](#)
- [DELETE /hosts/{host:id}/unmanagednetworks/{unmanagednetwork:id}](#)
- [POST /hosts/{host:id}/unregisteredstoragedomainsdiscover](#)
- [POST /hosts/{host:id}/upgrade](#)
- [POST /hosts/{host:id}/upgradecheck](#)
- [GET /icons](#)
- [GET /icons/{icon:id}](#)
- [POST /imagetransfers](#)
- [GET /imagetransfers](#)
- [GET /imagetransfers/{imagetransfer:id}](#)
- [POST /imagetransfers/{imagetransfer:id}/cancel](#)
- [POST /imagetransfers/{imagetransfer:id}/extend](#)
- [POST /imagetransfers/{imagetransfer:id}/finalize](#)
- [POST /imagetransfers/{imagetransfer:id}/pause](#)
- [POST /imagetransfers/{imagetransfer:id}/resume](#)
- [POST /instancetypes](#)
- [GET /instancetypes](#)
- [GET /instancetypes/{instancetype:id}](#)

- [PUT /instancetypes/{instancetype:id}](#)
- [DELETE /instancetypes/{instancetype:id}](#)
- [POST /instancetypes/{instancetype:id}/graphicsconsoles](#)
- [GET /instancetypes/{instancetype:id}/graphicsconsoles](#)
- [GET /instancetypes/{instancetype:id}/graphicsconsoles/{console:id}](#)
- [DELETE /instancetypes/{instancetype:id}/graphicsconsoles/{console:id}](#)
- [POST /instancetypes/{instancetype:id}/nics](#)
- [GET /instancetypes/{instancetype:id}/nics](#)
- [GET /instancetypes/{instancetype:id}/nics/{nic:id}](#)
- [PUT /instancetypes/{instancetype:id}/nics/{nic:id}](#)
- [DELETE /instancetypes/{instancetype:id}/nics/{nic:id}](#)
- [POST /instancetypes/{instancetype:id}/watchdogs](#)
- [GET /instancetypes/{instancetype:id}/watchdogs](#)
- [GET /instancetypes/{instancetype:id}/watchdogs/{watchdog:id}](#)
- [PUT /instancetypes/{instancetype:id}/watchdogs/{watchdog:id}](#)
- [DELETE /instancetypes/{instancetype:id}/watchdogs/{watchdog:id}](#)
- [POST /jobs](#)
- [GET /jobs](#)
- [GET /jobs/{job:id}](#)
- [POST /jobs/{job:id}/clear](#)
- [POST /jobs/{job:id}/end](#)
- [POST /jobs/{job:id}/steps](#)
- [GET /jobs/{job:id}/steps](#)
- [GET /jobs/{job:id}/steps/{step:id}](#)
- [POST /jobs/{job:id}/steps/{step:id}/end](#)
- [GET /jobs/{job:id}/steps/{step:id}/statistics](#)
- [GET /jobs/{job:id}/steps/{step:id}/statistics/{statistic:id}](#)
- [GET /katelloerrata](#)
- [GET /katelloerrata/{katelloerratum:id}](#)

- [POST /macpools](#)
- [GET /macpools](#)
- [GET /macpools/{macpool:id}](#)
- [PUT /macpools/{macpool:id}](#)
- [DELETE /macpools/{macpool:id}](#)
- [POST /macpools/{macpool:id}/permissions](#)
- [GET /macpools/{macpool:id}/permissions](#)
- [GET /macpools/{macpool:id}/permissions/{permission:id}](#)
- [DELETE /macpools/{macpool:id}/permissions/{permission:id}](#)
- [GET /networkfilters](#)
- [GET /networkfilters/{networkfilter:id}](#)
- [POST /networks](#)
- [GET /networks](#)
- [GET /networks/{network:id}](#)
- [PUT /networks/{network:id}](#)
- [DELETE /networks/{network:id}](#)
- [POST /networks/{network:id}/networklabels](#)
- [GET /networks/{network:id}/networklabels](#)
- [GET /networks/{network:id}/networklabels/{label:id}](#)
- [DELETE /networks/{network:id}/networklabels/{label:id}](#)
- [POST /networks/{network:id}/permissions](#)
- [GET /networks/{network:id}/permissions](#)
- [GET /networks/{network:id}/permissions/{permission:id}](#)
- [DELETE /networks/{network:id}/permissions/{permission:id}](#)
- [POST /networks/{network:id}/vnicprofiles](#)
- [GET /networks/{network:id}/vnicprofiles](#)
- [GET /networks/{network:id}/vnicprofiles/{profile:id}](#)
- [DELETE /networks/{network:id}/vnicprofiles/{profile:id}](#)
- [POST /networks/{network:id}/vnicprofiles/{profile:id}/permissions](#)

- GET /networks/{network:id}/vnicprofiles/{profile:id}/permissions
- GET /networks/{network:id}/vnicprofiles/{profile:id}/permissions/{permission:id}
- DELETE /networks/{network:id}/vnicprofiles/{profile:id}/permissions/{permission:id}
- POST /openstackimageproviders
- GET /openstackimageproviders
- GET /openstackimageproviders/{provider:id}
- PUT /openstackimageproviders/{provider:id}
- DELETE /openstackimageproviders/{provider:id}
- GET /openstackimageproviders/{provider:id}/certificates
- GET /openstackimageproviders/{provider:id}/certificates/{certificate:id}
- GET /openstackimageproviders/{provider:id}/images
- GET /openstackimageproviders/{provider:id}/images/{image:id}
- POST /openstackimageproviders/{provider:id}/images/{image:id}/import
- POST /openstackimageproviders/{provider:id}/importcertificates
- POST /openstackimageproviders/{provider:id}/testconnectivity
- POST /openstacknetworkproviders
- GET /openstacknetworkproviders
- GET /openstacknetworkproviders/{provider:id}
- PUT /openstacknetworkproviders/{provider:id}
- DELETE /openstacknetworkproviders/{provider:id}
- GET /openstacknetworkproviders/{provider:id}/certificates
- GET /openstacknetworkproviders/{provider:id}/certificates/{certificate:id}
- POST /openstacknetworkproviders/{provider:id}/importcertificates
- GET /openstacknetworkproviders/{provider:id}/networks
- GET /openstacknetworkproviders/{provider:id}/networks/{network:id}
- POST /openstacknetworkproviders/{provider:id}/networks/{network:id}/import
- POST /openstacknetworkproviders/{provider:id}/networks/{network:id}/subnets
- GET /openstacknetworkproviders/{provider:id}/networks/{network:id}/subnets
- GET /openstacknetworkproviders/{provider:id}/networks/{network:id}/subnets/{subnet:id}

- DELETE  
/openstacknetworkproviders/{provider:id}/networks/{network:id}/subnets/{subnet:id}
- POST /openstacknetworkproviders/{provider:id}/testconnectivity
- POST /openstackvolumeproviders
- GET /openstackvolumeproviders
- GET /openstackvolumeproviders/{provider:id}
- PUT /openstackvolumeproviders/{provider:id}
- DELETE /openstackvolumeproviders/{provider:id}
- POST /openstackvolumeproviders/{provider:id}/authenticationkeys
- GET /openstackvolumeproviders/{provider:id}/authenticationkeys
- GET /openstackvolumeproviders/{provider:id}/authenticationkeys/{key:id}
- PUT /openstackvolumeproviders/{provider:id}/authenticationkeys/{key:id}
- DELETE /openstackvolumeproviders/{provider:id}/authenticationkeys/{key:id}
- GET /openstackvolumeproviders/{provider:id}/certificates
- GET /openstackvolumeproviders/{provider:id}/certificates/{certificate:id}
- POST /openstackvolumeproviders/{provider:id}/importcertificates
- POST /openstackvolumeproviders/{provider:id}/testconnectivity
- GET /openstackvolumeproviders/{provider:id}/volumetypes
- GET /openstackvolumeproviders/{provider:id}/volumetypes/{type:id}
- GET /operatingsystems
- GET /operatingsystems/{operatingsystem:id}
- GET /options/{option:id}
- POST /permissions
- GET /permissions
- GET /permissions/{permission:id}
- DELETE /permissions/{permission:id}
- POST /roles
- GET /roles
- GET /roles/{role:id}
- DELETE /roles/{role:id}

- [PUT /roles/{role:id}](#)
- [POST /roles/{role:id}/permits](#)
- [GET /roles/{role:id}/permits](#)
- [GET /roles/{role:id}/permits/{permit:id}](#)
- [DELETE /roles/{role:id}/permits/{permit:id}](#)
- [POST /schedulingpolicies](#)
- [GET /schedulingpolicies](#)
- [GET /schedulingpolicies/{policy:id}](#)
- [PUT /schedulingpolicies/{policy:id}](#)
- [DELETE /schedulingpolicies/{policy:id}](#)
- [POST /schedulingpolicies/{policy:id}/balances](#)
- [GET /schedulingpolicies/{policy:id}/balances](#)
- [GET /schedulingpolicies/{policy:id}/balances/{balance:id}](#)
- [DELETE /schedulingpolicies/{policy:id}/balances/{balance:id}](#)
- [POST /schedulingpolicies/{policy:id}/filters](#)
- [GET /schedulingpolicies/{policy:id}/filters](#)
- [GET /schedulingpolicies/{policy:id}/filters/{filter:id}](#)
- [DELETE /schedulingpolicies/{policy:id}/filters/{filter:id}](#)
- [POST /schedulingpolicies/{policy:id}/weights](#)
- [GET /schedulingpolicies/{policy:id}/weights](#)
- [GET /schedulingpolicies/{policy:id}/weights/{weight:id}](#)
- [DELETE /schedulingpolicies/{policy:id}/weights/{weight:id}](#)
- [GET /schedulingpolicyunits](#)
- [GET /schedulingpolicyunits/{unit:id}](#)
- [DELETE /schedulingpolicyunits/{unit:id}](#)
- [POST /storageconnections](#)
- [GET /storageconnections](#)
- [GET /storageconnections/{storageconnection:id}](#)
- [PUT /storageconnections/{storageconnection:id}](#)

- DELETE /storageconnections/{storageconnection:id}
- POST /storagedomains
- GET /storagedomains
- GET /storagedomains/{storagedomain:id}
- PUT /storagedomains/{storagedomain:id}
- DELETE /storagedomains/{storagedomain:id}
- POST /storagedomains/{storagedomain:id}/diskprofiles
- GET /storagedomains/{storagedomain:id}/diskprofiles
- GET /storagedomains/{storagedomain:id}/diskprofiles/{profile:id}
- DELETE /storagedomains/{storagedomain:id}/diskprofiles/{profile:id}
- POST /storagedomains/{storagedomain:id}/disks
- GET /storagedomains/{storagedomain:id}/disks
- PUT /storagedomains/{storagedomain:id}/disks/{disk:id}
- GET /storagedomains/{storagedomain:id}/disks/{disk:id}
- DELETE /storagedomains/{storagedomain:id}/disks/{disk:id}
- POST /storagedomains/{storagedomain:id}/disks/{disk:id}/copy
- POST /storagedomains/{storagedomain:id}/disks/{disk:id}/export
- POST /storagedomains/{storagedomain:id}/disks/{disk:id}/move
- POST /storagedomains/{storagedomain:id}/disks/{disk:id}/permissions
- GET /storagedomains/{storagedomain:id}/disks/{disk:id}/permissions
- GET /storagedomains/{storagedomain:id}/disks/{disk:id}/permissions/{permission:id}
- DELETE /storagedomains/{storagedomain:id}/disks/{disk:id}/permissions/{permission:id}
- POST /storagedomains/{storagedomain:id}/disks/{disk:id}/reduce
- POST /storagedomains/{storagedomain:id}/disks/{disk:id}/sparsify
- GET /storagedomains/{storagedomain:id}/disks/{disk:id}/statistics
- GET /storagedomains/{storagedomain:id}/disks/{disk:id}/statistics/{statistic:id}
- GET /storagedomains/{storagedomain:id}/disksnapshots
- GET /storagedomains/{storagedomain:id}/disksnapshots/{snapshot:id}
- DELETE /storagedomains/{storagedomain:id}/disksnapshots/{snapshot:id}

- [GET /storagedomains/{storagedomain:id}/files](#)
- [GET /storagedomains/{storagedomain:id}/files/{file:id}](#)
- [GET /storagedomains/{storagedomain:id}/images](#)
- [GET /storagedomains/{storagedomain:id}/images/{image:id}](#)
- [POST /storagedomains/{storagedomain:id}/images/{image:id}/import](#)
- [POST /storagedomains/{storagedomain:id}/isattached](#)
- [POST /storagedomains/{storagedomain:id}/permissions](#)
- [GET /storagedomains/{storagedomain:id}/permissions](#)
- [GET /storagedomains/{storagedomain:id}/permissions/{permission:id}](#)
- [DELETE /storagedomains/{storagedomain:id}/permissions/{permission:id}](#)
- [POST /storagedomains/{storagedomain:id}/reduceluns](#)
- [POST /storagedomains/{storagedomain:id}/refreshluns](#)
- [POST /storagedomains/{storagedomain:id}/storageconnections](#)
- [GET /storagedomains/{storagedomain:id}/storageconnections](#)
- [GET /storagedomains/{storagedomain:id}/storageconnections/{connection:id}](#)
- [DELETE /storagedomains/{storagedomain:id}/storageconnections/{connection:id}](#)
- [GET /storagedomains/{storagedomain:id}/templates](#)
- [GET /storagedomains/{storagedomain:id}/templates/{template:id}](#)
- [DELETE /storagedomains/{storagedomain:id}/templates/{template:id}](#)
- [GET /storagedomains/{storagedomain:id}/templates/{template:id}/disks](#)
- [GET /storagedomains/{storagedomain:id}/templates/{template:id}/disks/{disk:id}](#)
- [POST /storagedomains/{storagedomain:id}/templates/{template:id}/import](#)
- [POST /storagedomains/{storagedomain:id}/templates/{template:id}/register](#)
- [POST /storagedomains/{storagedomain:id}/updateovfstore](#)
- [GET /storagedomains/{storagedomain:id}/vms](#)
- [GET /storagedomains/{storagedomain:id}/vms/{vm:id}](#)
- [DELETE /storagedomains/{storagedomain:id}/vms/{vm:id}](#)
- [GET /storagedomains/{storagedomain:id}/vms/{vm:id}/diskattachments](#)
- [GET /storagedomains/{storagedomain:id}/vms/{vm:id}/diskattachments/{attachment:id}](#)

- GET /storagedomains/{storagedomain:id}/vms/{vm:id}/disks
- GET /storagedomains/{storagedomain:id}/vms/{vm:id}/disks/{disk:id}
- POST /storagedomains/{storagedomain:id}/vms/{vm:id}/import
- POST /storagedomains/{storagedomain:id}/vms/{vm:id}/register
- POST /tags
- GET /tags
- GET /tags/{tag:id}
- PUT /tags/{tag:id}
- DELETE /tags/{tag:id}
- POST /templates
- GET /templates
- GET /templates/{template:id}
- PUT /templates/{template:id}
- DELETE /templates/{template:id}
- GET /templates/{template:id}/cdroms
- GET /templates/{template:id}/cdroms/{cdrom:id}
- GET /templates/{template:id}/diskattachments
- GET /templates/{template:id}/diskattachments/{attachment:id}
- DELETE /templates/{template:id}/diskattachments/{attachment:id}
- POST /templates/{template:id}/export
- POST /templates/{template:id}/graphicsconsoles
- GET /templates/{template:id}/graphicsconsoles
- GET /templates/{template:id}/graphicsconsoles/{console:id}
- DELETE /templates/{template:id}/graphicsconsoles/{console:id}
- POST /templates/{template:id}/mediateddevices
- GET /templates/{template:id}/mediateddevices
- GET /templates/{template:id}/mediateddevices/{device:id}
- PUT /templates/{template:id}/mediateddevices/{device:id}
- DELETE /templates/{template:id}/mediateddevices/{device:id}

- [POST /templates/{template:id}/nics](#)
- [GET /templates/{template:id}/nics](#)
- [GET /templates/{template:id}/nics/{nic:id}](#)
- [PUT /templates/{template:id}/nics/{nic:id}](#)
- [DELETE /templates/{template:id}/nics/{nic:id}](#)
- [POST /templates/{template:id}/permissions](#)
- [GET /templates/{template:id}/permissions](#)
- [GET /templates/{template:id}/permissions/{permission:id}](#)
- [DELETE /templates/{template:id}/permissions/{permission:id}](#)
- [POST /templates/{template:id}/tags](#)
- [GET /templates/{template:id}/tags](#)
- [GET /templates/{template:id}/tags/{tag:id}](#)
- [DELETE /templates/{template:id}/tags/{tag:id}](#)
- [POST /templates/{template:id}/watchdogs](#)
- [GET /templates/{template:id}/watchdogs](#)
- [GET /templates/{template:id}/watchdogs/{watchdog:id}](#)
- [PUT /templates/{template:id}/watchdogs/{watchdog:id}](#)
- [DELETE /templates/{template:id}/watchdogs/{watchdog:id}](#)
- [POST /users](#)
- [GET /users](#)
- [GET /users/{user:id}](#)
- [PUT /users/{user:id}](#)
- [DELETE /users/{user:id}](#)
- [POST /users/{user:id}/eventsubscriptions](#)
- [GET /users/{user:id}/eventsubscriptions](#)
- [GET /users/{user:id}/eventsubscriptions/{eventsubscription:id}](#)
- [DELETE /users/{user:id}/eventsubscriptions/{eventsubscription:id}](#)
- [GET /users/{user:id}/groups](#)
- [POST /users/{user:id}/options](#)

- GET /users/{user:id}/options
- GET /users/{user:id}/options/{option:id}
- DELETE /users/{user:id}/options/{option:id}
- POST /users/{user:id}/permissions
- GET /users/{user:id}/permissions
- GET /users/{user:id}/permissions/{permission:id}
- DELETE /users/{user:id}/permissions/{permission:id}
- GET /users/{user:id}/roles
- GET /users/{user:id}/roles/{role:id}
- DELETE /users/{user:id}/roles/{role:id}
- PUT /users/{user:id}/roles/{role:id}
- POST /users/{user:id}/roles/{role:id}/permits
- GET /users/{user:id}/roles/{role:id}/permits
- GET /users/{user:id}/roles/{role:id}/permits/{permit:id}
- DELETE /users/{user:id}/roles/{role:id}/permits/{permit:id}
- POST /users/{user:id}/sshpublickeys
- GET /users/{user:id}/sshpublickeys
- GET /users/{user:id}/sshpublickeys/{key:id}
- PUT /users/{user:id}/sshpublickeys/{key:id}
- DELETE /users/{user:id}/sshpublickeys/{key:id}
- POST /users/{user:id}/tags
- GET /users/{user:id}/tags
- GET /users/{user:id}/tags/{tag:id}
- DELETE /users/{user:id}/tags/{tag:id}
- POST /vmpools
- GET /vmpools
- GET /vmpools/{pool:id}
- PUT /vmpools/{pool:id}
- DELETE /vmpools/{pool:id}

- [POST /vmpools/{pool:id}/allocatevm](#)
- [POST /vmpools/{pool:id}/permissions](#)
- [GET /vmpools/{pool:id}/permissions](#)
- [GET /vmpools/{pool:id}/permissions/{permission:id}](#)
- [DELETE /vmpools/{pool:id}/permissions/{permission:id}](#)
- [POST /vms](#)
- [GET /vms](#)
- [GET /vms/{vm:id}](#)
- [PUT /vms/{vm:id}](#)
- [DELETE /vms/{vm:id}](#)
- [POST /vms/{vm:id}/affinitylabels](#)
- [GET /vms/{vm:id}/affinitylabels](#)
- [GET /vms/{vm:id}/affinitylabels/{label:id}](#)
- [DELETE /vms/{vm:id}/affinitylabels/{label:id}](#)
- [GET /vms/{vm:id}/applications](#)
- [GET /vms/{vm:id}/applications/{application:id}](#)
- [POST /vms/{vm:id}/autopincpuandnumanodes](#)
- [POST /vms/{vm:id}/backups](#)
- [GET /vms/{vm:id}/backups](#)
- [GET /vms/{vm:id}/backups/{backup:id}](#)
- [GET /vms/{vm:id}/backups/{backup:id}/disks](#)
- [GET /vms/{vm:id}/backups/{backup:id}/disks/{disk:id}](#)
- [POST /vms/{vm:id}/backups/{backup:id}/finalize](#)
- [POST /vms/{vm:id}/cancelmigration](#)
- [POST /vms/{vm:id}/cdroms](#)
- [GET /vms/{vm:id}/cdroms](#)
- [GET /vms/{vm:id}/cdroms/{cdrom:id}](#)
- [PUT /vms/{vm:id}/cdroms/{cdrom:id}](#)
- [GET /vms/{vm:id}/checkpoints](#)

- GET /vms/{vm:id}/checkpoints/{checkpoint:id}
- DELETE /vms/{vm:id}/checkpoints/{checkpoint:id}
- GET /vms/{vm:id}/checkpoints/{checkpoint:id}/disks
- GET /vms/{vm:id}/checkpoints/{checkpoint:id}/disks/{disk:id}
- POST /vms/{vm:id}/clone
- POST /vms/{vm:id}/commitsnapshot
- POST /vms/{vm:id}/detach
- POST /vms/{vm:id}/diskattachments
- GET /vms/{vm:id}/diskattachments
- GET /vms/{vm:id}/diskattachments/{attachment:id}
- DELETE /vms/{vm:id}/diskattachments/{attachment:id}
- PUT /vms/{vm:id}/diskattachments/{attachment:id}
- POST /vms/{vm:id}/export
- POST /vms/{vm:id}/freezefilesystems
- POST /vms/{vm:id}/graphicsconsoles
- GET /vms/{vm:id}/graphicsconsoles
- GET /vms/{vm:id}/graphicsconsoles/{console:id}
- DELETE /vms/{vm:id}/graphicsconsoles/{console:id}
- POST /vms/{vm:id}/graphicsconsoles/{console:id}/proxyticket
- POST /vms/{vm:id}/graphicsconsoles/{console:id}/remoteviewerconnectionfile
- POST /vms/{vm:id}/graphicsconsoles/{console:id}/ticket
- POST /vms/{vm:id}/hostdevices
- GET /vms/{vm:id}/hostdevices
- GET /vms/{vm:id}/hostdevices/{device:id}
- DELETE /vms/{vm:id}/hostdevices/{device:id}
- GET /vms/{vm:id}/katelloerrata
- GET /vms/{vm:id}/katelloerrata/{katelloerratum:id}
- POST /vms/{vm:id}/logon
- POST /vms/{vm:id}/maintenance

- [POST /vms/{vm:id}/mediateddevices](#)
- [GET /vms/{vm:id}/mediateddevices](#)
- [GET /vms/{vm:id}/mediateddevices/{device:id}](#)
- [PUT /vms/{vm:id}/mediateddevices/{device:id}](#)
- [DELETE /vms/{vm:id}/mediateddevices/{device:id}](#)
- [POST /vms/{vm:id}/migrate](#)
- [POST /vms/{vm:id}/nics](#)
- [GET /vms/{vm:id}/nics](#)
- [GET /vms/{vm:id}/nics/{nic:id}](#)
- [PUT /vms/{vm:id}/nics/{nic:id}](#)
- [DELETE /vms/{vm:id}/nics/{nic:id}](#)
- [POST /vms/{vm:id}/nics/{nic:id}/activate](#)
- [POST /vms/{vm:id}/nics/{nic:id}/deactivate](#)
- [GET /vms/{vm:id}/nics/{nic:id}/networkfilterparameters](#)
- [POST /vms/{vm:id}/nics/{nic:id}/networkfilterparameters](#)
- [GET /vms/{vm:id}/nics/{nic:id}/networkfilterparameters/{parameter:id}](#)
- [PUT /vms/{vm:id}/nics/{nic:id}/networkfilterparameters/{parameter:id}](#)
- [DELETE /vms/{vm:id}/nics/{nic:id}/networkfilterparameters/{parameter:id}](#)
- [GET /vms/{vm:id}/nics/{nic:id}/reporteddevices](#)
- [GET /vms/{vm:id}/nics/{nic:id}/reporteddevices/{reporteddevice:id}](#)
- [GET /vms/{vm:id}/nics/{nic:id}/statistics](#)
- [GET /vms/{vm:id}/nics/{nic:id}/statistics/{statistic:id}](#)
- [POST /vms/{vm:id}/numanodes](#)
- [GET /vms/{vm:id}/numanodes](#)
- [GET /vms/{vm:id}/numanodes/{node:id}](#)
- [PUT /vms/{vm:id}/numanodes/{node:id}](#)
- [DELETE /vms/{vm:id}/numanodes/{node:id}](#)
- [POST /vms/{vm:id}/permissions](#)
- [GET /vms/{vm:id}/permissions](#)

- GET /vms/{vm:id}/permissions/{permission:id}
- DELETE /vms/{vm:id}/permissions/{permission:id}
- POST /vms/{vm:id}/previewsnapshot
- POST /vms/{vm:id}/reboot
- POST /vms/{vm:id}/reordermacaddresses
- GET /vms/{vm:id}/reporteddevices
- GET /vms/{vm:id}/reporteddevices/{reporteddevice:id}
- POST /vms/{vm:id}/reset
- POST /vms/{vm:id}/screenshot
- GET /vms/{vm:id}/sessions
- GET /vms/{vm:id}/sessions/{session:id}
- POST /vms/{vm:id}/shutdown
- POST /vms/{vm:id}/snapshots
- GET /vms/{vm:id}/snapshots
- GET /vms/{vm:id}/snapshots/{snapshot:id}
- DELETE /vms/{vm:id}/snapshots/{snapshot:id}
- GET /vms/{vm:id}/snapshots/{snapshot:id}/cdroms
- GET /vms/{vm:id}/snapshots/{snapshot:id}/cdroms/{cdrom:id}
- GET /vms/{vm:id}/snapshots/{snapshot:id}/disks
- GET /vms/{vm:id}/snapshots/{snapshot:id}/disks/{disk:id}
- GET /vms/{vm:id}/snapshots/{snapshot:id}/nics
- GET /vms/{vm:id}/snapshots/{snapshot:id}/nics/{nic:id}
- POST /vms/{vm:id}/snapshots/{snapshot:id}/restore
- POST /vms/{vm:id}/start
- GET /vms/{vm:id}/statistics
- GET /vms/{vm:id}/statistics/{statistic:id}
- POST /vms/{vm:id}/stop
- POST /vms/{vm:id}/suspend
- POST /vms/{vm:id}/tags

- [GET /vms/{vm:id}/tags](#)
- [GET /vms/{vm:id}/tags/{tag:id}](#)
- [DELETE /vms/{vm:id}/tags/{tag:id}](#)
- [POST /vms/{vm:id}/thawfilesystems](#)
- [POST /vms/{vm:id}/ticket](#)
- [POST /vms/{vm:id}/undosnapshot](#)
- [POST /vms/{vm:id}/watchdogs](#)
- [GET /vms/{vm:id}/watchdogs](#)
- [GET /vms/{vm:id}/watchdogs/{watchdog:id}](#)
- [PUT /vms/{vm:id}/watchdogs/{watchdog:id}](#)
- [DELETE /vms/{vm:id}/watchdogs/{watchdog:id}](#)
- [POST /vnicprofiles](#)
- [GET /vnicprofiles](#)
- [GET /vnicprofiles/{profile:id}](#)
- [PUT /vnicprofiles/{profile:id}](#)
- [DELETE /vnicprofiles/{profile:id}](#)
- [POST /vnicprofiles/{profile:id}/permissions](#)
- [GET /vnicprofiles/{profile:id}/permissions](#)
- [GET /vnicprofiles/{profile:id}/permissions/{permission:id}](#)
- [DELETE /vnicprofiles/{profile:id}/permissions/{permission:id}](#)

## CHAPTER 6. SERVICES

This section enumerates all the services that are available in the API.

### 6.1. AFFINITYGROUP

This service manages a single affinity group.

Table 6.1. Methods summary

Name	Summary
<b>get</b>	Retrieve the affinity group details.
<b>remove</b>	Remove the affinity group.
<b>update</b>	Update the affinity group.

#### 6.1.1. get GET

Retrieve the affinity group details.

```
<affinity_group id="00000000-0000-0000-0000-000000000000">
  <name>AF_GROUP_001 </name>
  <cluster id="00000000-0000-0000-0000-000000000000"/>
  <positive>true</positive>
  <enforcing>true</enforcing>
</affinity_group>
```

Table 6.2. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>group</b>	AffinityGroup	Out	The affinity group.

##### 6.1.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.1.2. remove DELETE

Remove the affinity group.

```
DELETE /ovirt-engine/api/clusters/000-000/affinitygroups/123-456
```

Table 6.3. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the removal should be performed asynchronously.

### 6.1.3. update PUT

Update the affinity group.

Table 6.4. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>group</b>	AffinityGroup	In/Out	The affinity group.

## 6.2. AFFINITYGROUPHOST

This service manages a single host to affinity group assignment.

Table 6.5. Methods summary

Name	Summary
<b>remove</b>	Remove host from the affinity group.

### 6.2.1. remove DELETE

Remove host from the affinity group.

Table 6.6. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the removal should be performed asynchronously.

## 6.3. AFFINITYGROUPHOSTLABEL

This service manages a single host label assigned to an affinity group.

Table 6.7. Methods summary

Name	Summary
<b>remove</b>	Remove this label from the affinity group.

### 6.3.1. remove DELETE

Remove this label from the affinity group.

Table 6.8. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the removal should be performed asynchronously.

## 6.4. AFFINITYGROUPHOSTLABELS

This service manages a collection of all host labels assigned to an affinity group.

Table 6.9. Methods summary

Name	Summary
<b>add</b>	Adds a host label to the affinity group.
<b>list</b>	List all host labels assigned to this affinity group.

### 6.4.1. add POST

Adds a host label to the affinity group.

For example, to add the label **789** to the affinity group **456** of cluster **123**, send a request like this:

```
POST /ovirt-engine/api/clusters/123/affinitygroups/456/hostlabels
```

With the following body:

```
<affinity_label id="789"/>
```

Table 6.10. Parameters summary

Name	Type	Direction	Summary
<b>label</b>	AffinityLabel	In/Out	The AffinityLabel object to add to the affinity group.

### 6.4.2. list GET

List all host labels assigned to this affinity group.

The order of the returned labels isn't guaranteed.

**Table 6.11. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>labels</b>	AffinityLabel []	Out	Host labels assigned to the affinity group.
<b>max</b>	Integer	In	Sets the maximum number of host labels to return.

#### 6.4.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.4.2.2. max

Sets the maximum number of host labels to return. If not specified, all the labels are returned.

## 6.5. AFFINITYGROUPHOSTS

This service manages a collection of all hosts assigned to an affinity group.

**Table 6.12. Methods summary**

Name	Summary
<b>add</b>	Adds a host to the affinity group.
<b>list</b>	List all hosts assigned to this affinity group.

#### 6.5.1. add POST

Adds a host to the affinity group.

For example, to add the host **789** to the affinity group **456** of cluster **123**, send a request like this:

```
POST /ovirt-engine/api/clusters/123/affinitygroups/456/hosts
```

With the following body:

```
<host id="789"/>
```

**Table 6.13. Parameters summary**

Name	Type	Direction	Summary
<b>host</b>	<a href="#">Host</a>	In/Out	The host to be added to the affinity group.

### 6.5.2. list GET

List all hosts assigned to this affinity group.

The order of the returned hosts isn't guaranteed.

**Table 6.14. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>hosts</b>	<a href="#">Host[]</a>	Out	The list of hosts assigned to this affinity group.
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of hosts to return.

#### 6.5.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.5.2.2. max

Sets the maximum number of hosts to return. If not specified, all the hosts are returned.

## 6.6. AFFINITYGROUPVPM

This service manages a single virtual machine to affinity group assignment.

**Table 6.15. Methods summary**

Name	Summary
<b>remove</b>	Remove this virtual machine from the affinity group.

### 6.6.1. remove DELETE

Remove this virtual machine from the affinity group.

**Table 6.16. Parameters summary**

Name	Type	Direction	Summary
------	------	-----------	---------

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the removal should be performed asynchronously.

## 6.7. AFFINITYGROUPVMLABEL

This service manages a single virtual machine label assigned to an affinity group.

Table 6.17. Methods summary

Name	Summary
<b>remove</b>	Remove this label from the affinity group.

### 6.7.1. remove DELETE

Remove this label from the affinity group.

Table 6.18. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the removal should be performed asynchronously.

## 6.8. AFFINITYGROUPVMLABELS

This service manages a collection of all virtual machine labels assigned to an affinity group.

Table 6.19. Methods summary

Name	Summary
<b>add</b>	Adds a virtual machine label to the affinity group.
<b>list</b>	List all virtual machine labels assigned to this affinity group.

### 6.8.1. add POST

Adds a virtual machine label to the affinity group.

For example, to add the label **789** to the affinity group **456** of cluster **123**, send a request like this:

```
POST /ovirt-engine/api/clusters/123/affinitygroups/456/vmlabels
```

With the following body:

```
<affinity_label id="789"/>
```

Table 6.20. Parameters summary

Name	Type	Direction	Summary
<b>label</b>	<a href="#">AffinityLabel</a>	In/Out	The AffinityLabel object to add to the affinity group.

## 6.8.2. list GET

List all virtual machine labels assigned to this affinity group.

The order of the returned labels isn't guaranteed.

Table 6.21. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>labels</b>	<a href="#">AffinityLabel</a> []	Out	Virtual machine labels assigned to the affinity group.
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of virtual machine labels to return.

### 6.8.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.8.2.2. max

Sets the maximum number of virtual machine labels to return. If not specified, all the labels are returned.

## 6.9. AFFINITYGROUPVMS

This service manages a collection of all the virtual machines assigned to an affinity group.

Table 6.22. Methods summary

Name	Summary
<b>add</b>	Adds a virtual machine to the affinity group.
<b>list</b>	List all virtual machines assigned to this affinity group.

### 6.9.1. add POST

Adds a virtual machine to the affinity group.

For example, to add the virtual machine **789** to the affinity group **456** of cluster **123**, send a request like this:

```
POST /ovirt-engine/api/clusters/123/affinitygroups/456/vms
```

With the following body:

```
<vm id="789"/>
```

Table 6.23. Parameters summary

Name	Type	Direction	Summary
<b>vm</b>	Vm	In/Out	

## 6.9.2. list GET

List all virtual machines assigned to this affinity group.

The order of the returned virtual machines isn't guaranteed.

Table 6.24. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of virtual machines to return.
<b>vms</b>	Vm[]	Out	

### 6.9.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.9.2.2. max

Sets the maximum number of virtual machines to return. If not specified, all the virtual machines are returned.

## 6.10. AFFINITYGROUPS

The affinity groups service manages virtual machine relationships and dependencies.

Table 6.25. Methods summary

Name	Summary
<b>add</b>	Create a new affinity group.
<b>list</b>	List existing affinity groups.

### 6.10.1. add POST

Create a new affinity group.

Post a request like in the example below to create a new affinity group:

```
POST /ovirt-engine/api/clusters/000-000/affinitygroups
```

And use the following example in its body:

```
<affinity_group>
  <name>AF_GROUP_001</name>
  <hosts_rule>
    <enforcing>>true</enforcing>
    <positive>>true</positive>
  </hosts_rule>
  <vms_rule>
    <enabled>>false</enabled>
  </vms_rule>
</affinity_group>
```

Table 6.26. Parameters summary

Name	Type	Direction	Summary
<b>group</b>	<a href="#">AffinityGroup</a>	In/Out	The affinity group object to create.

### 6.10.2. list GET

List existing affinity groups.

The order of the affinity groups results isn't guaranteed.

Table 6.27. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>groups</b>	<a href="#">AffinityGroup[]</a>	Out	The list of existing affinity groups.

Name	Type	Direction	Summary
<b>max</b>	Integer	In	Sets the maximum number of affinity groups to return.

### 6.10.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.10.2.2. max

Sets the maximum number of affinity groups to return. If not specified all the affinity groups are returned.

## 6.11. AFFINITYLABEL

The details of a single affinity label.

Table 6.28. Methods summary

Name	Summary
<b>get</b>	Retrieves the details of a label.
<b>remove</b>	Removes a label from the system and clears all assignments of the removed label.
<b>update</b>	Updates a label.

### 6.11.1. get GET

Retrieves the details of a label.

Table 6.29. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>label</b>	AffinityLabel	Out	

#### 6.11.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.11.2. remove DELETE

Removes a label from the system and clears all assignments of the removed label.

### 6.11.3. update PUT

Updates a label. This call will update all metadata, such as the name or description.

Table 6.30. Parameters summary

Name	Type	Direction	Summary
<b>label</b>	<a href="#">AffinityLabel</a>	In/Out	

## 6.12. AFFINITYLABELHOST

This service represents a host that has a specific label when accessed through the `affinitylabels/hosts` subcollection.

Table 6.31. Methods summary

Name	Summary
<b>get</b>	Retrieves details about a host that has this label assigned.
<b>remove</b>	Remove a label from a host.

### 6.12.1. get GET

Retrieves details about a host that has this label assigned.

Table 6.32. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>host</b>	<a href="#">Host</a>	Out	

#### 6.12.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.12.2. remove DELETE

Remove a label from a host.

## 6.13. AFFINITYLABELHOSTS

This service represents list of hosts that have a specific label when accessed through the `affinitylabels/hosts` subcollection.

**Table 6.33. Methods summary**

Name	Summary
<b>add</b>	Add a label to a host.
<b>list</b>	List all hosts with the label.

### 6.13.1. add POST

Add a label to a host.

**Table 6.34. Parameters summary**

Name	Type	Direction	Summary
<b>host</b>	<a href="#">Host</a>	In/Out	

### 6.13.2. list GET

List all hosts with the label.

The order of the returned hosts isn't guaranteed.

**Table 6.35. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>hosts</b>	<a href="#">Host[]</a>	Out	

#### 6.13.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.14. AFFINITYLABELVM

This service represents a vm that has a specific label when accessed through the `affinitylabels/vms` subcollection.

**Table 6.36. Methods summary**

Name	Summary
<b>get</b>	Retrieves details about a vm that has this label assigned.
<b>remove</b>	Remove a label from a vm.

### 6.14.1. get GET

Retrieves details about a vm that has this label assigned.

Table 6.37. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>vm</b>	Vm	Out	

#### 6.14.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.14.2. remove DELETE

Remove a label from a vm.

## 6.15. AFFINITYLABELVMS

This service represents list of vms that have a specific label when accessed through the `affinitylabels/vms` subcollection.

Table 6.38. Methods summary

Name	Summary
<b>add</b>	Add a label to a vm.
<b>list</b>	List all virtual machines with the label.

### 6.15.1. add POST

Add a label to a vm.

Table 6.39. Parameters summary

Name	Type	Direction	Summary
<b>vm</b>	Vm	In/Out	

### 6.15.2. list GET

List all virtual machines with the label.

The order of the returned virtual machines isn't guaranteed.

**Table 6.40. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>vms</b>	Vm[]	Out	

#### 6.15.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.16. AFFINITYLABELS

Manages the affinity labels available in the system.

**Table 6.41. Methods summary**

Name	Summary
<b>add</b>	Creates a new label.
<b>list</b>	Lists all labels present in the system.

### 6.16.1. add POST

Creates a new label. The label is automatically attached to all entities mentioned in the vms or hosts lists.

**Table 6.42. Parameters summary**

Name	Type	Direction	Summary
<b>label</b>	AffinityLabel	In/Out	

### 6.16.2. list GET

Lists all labels present in the system.

The order of the returned labels isn't guaranteed.

**Table 6.43. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>labels</b>	AffinityLabel []	Out	
<b>max</b>	Integer	In	Sets the maximum number of labels to return.

#### 6.16.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.16.2.2. max

Sets the maximum number of labels to return. If not specified all the labels are returned.

## 6.17. AREA

This annotation is intended to specify what oVirt area is the annotated concept related to. Currently the following areas are in use, and they are closely related to the oVirt teams, but not necessarily the same:

- Infrastructure
- Network
- SLA
- Storage
- Virtualization

A concept may be associated to more than one area, or to no area.

The value of this annotation is intended for reporting only, and it doesn't affect at all the generated code or the validity of the model

## 6.18. ASSIGNEDAFFINITYLABEL

This service represents one label to entity assignment when accessed using the entities/affinitylabels subcollection.

**Table 6.44. Methods summary**

Name	Summary
<b>get</b>	Retrieves details about the attached label.

Name	Summary
<b>remove</b>	Removes the label from an entity.

### 6.18.1. get GET

Retrieves details about the attached label.

Table 6.45. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>label</b>	<a href="#">AffinityLabel</a>	Out	

#### 6.18.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.18.2. remove DELETE

Removes the label from an entity. Does not touch the label itself.

## 6.19. ASSIGNEDAFFINITYLABELS

This service is used to list and manipulate affinity labels that are assigned to supported entities when accessed using entities/affinitylabels.

Table 6.46. Methods summary

Name	Summary
<b>add</b>	Attaches a label to an entity.
<b>list</b>	Lists all labels that are attached to an entity.

### 6.19.1. add POST

Attaches a label to an entity.

Table 6.47. Parameters summary

Name	Type	Direction	Summary
<b>label</b>	<a href="#">AffinityLabel</a>	In/Out	

## 6.19.2. list GET

Lists all labels that are attached to an entity.

The order of the returned entities isn't guaranteed.

Table 6.48. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>label</b>	<a href="#">AffinityLabel</a> []	Out	

### 6.19.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.20. ASSIGNEDCPUPROFILE

Table 6.49. Methods summary

Name	Summary
<b>get</b>	
<b>remove</b>	

### 6.20.1. get GET

Table 6.50. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>profile</b>	<a href="#">CpuProfile</a>	Out	

#### 6.20.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.20.2. remove DELETE

Table 6.51. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

## 6.21. ASSIGNEDCPUFILES

Table 6.52. Methods summary

Name	Summary
<b>add</b>	Add a new cpu profile for the cluster.
<b>list</b>	List the CPU profiles assigned to the cluster.

### 6.21.1. add POST

Add a new cpu profile for the cluster.

Table 6.53. Parameters summary

Name	Type	Direction	Summary
<b>profile</b>	CpuProfile	In/Out	

### 6.21.2. list GET

List the CPU profiles assigned to the cluster.

The order of the returned CPU profiles isn't guaranteed.

Table 6.54. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of profiles to return.
<b>profiles</b>	CpuProfile[]	Out	

#### 6.21.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.21.2.2. max

Sets the maximum number of profiles to return. If not specified all the profiles are returned.

## 6.22. ASSIGNEDDISKPROFILE

Table 6.55. Methods summary

Name	Summary
<b>get</b>	
<b>remove</b>	

### 6.22.1. get GET

Table 6.56. Parameters summary

Name	Type	Direction	Summary
<b>disk_profile</b>	<a href="#">DiskProfile</a>	Out	
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

#### 6.22.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.22.2. remove DELETE

Table 6.57. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the remove should be performed asynchronously.

## 6.23. ASSIGNEDDISKPROFILES

Table 6.58. Methods summary

Name	Summary
<b>add</b>	Add a new disk profile for the storage domain.
<b>list</b>	Returns the list of disk profiles assigned to the storage domain.

### 6.23.1. add POST

Add a new disk profile for the storage domain.

Table 6.59. Parameters summary

Name	Type	Direction	Summary
<b>profile</b>	DiskProfile	In/Out	

### 6.23.2. list GET

Returns the list of disk profiles assigned to the storage domain.

The order of the returned disk profiles isn't guaranteed.

Table 6.60. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of profiles to return.
<b>profiles</b>	DiskProfile[]	Out	

#### 6.23.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.23.2.2. max

Sets the maximum number of profiles to return. If not specified all the profiles are returned.

## 6.24. ASSIGNEDPERMISSIONS

Represents a permission sub-collection, scoped by user, group or some entity type.

Table 6.61. Methods summary

Name	Summary
<b>add</b>	Assign a new permission to a user or group for specific entity.
<b>list</b>	List all the permissions of the specific entity.

### 6.24.1. add POST

Assign a new permission to a user or group for specific entity.

For example, to assign the **UserVmManager** role to the virtual machine with id **123** to the user with id **456** send a request like this:

```
POST /ovirt-engine/api/vms/123/permissions
```

With a request body like this:

```
<permission>
  <role>
    <name>UserVmManager</name>
  </role>
  <user id="456"/>
</permission>
```

To assign the **SuperUser** role to the system to the user with id **456** send a request like this:

```
POST /ovirt-engine/api/permissions
```

With a request body like this:

```
<permission>
  <role>
    <name>SuperUser</name>
  </role>
  <user id="456"/>
</permission>
```

If you want to assign permission to the group instead of the user please replace the **user** element with the **group** element with proper **id** of the group. For example to assign the **UserRole** role to the cluster with id **123** to the group with id **789** send a request like this:

```
POST /ovirt-engine/api/clusters/123/permissions
```

With a request body like this:

```
<permission>
  <role>
    <name>UserRole</name>
  </role>
  <group id="789"/>
</permission>
```

Table 6.62. Parameters summary

Name	Type	Direction	Summary
<b>permission</b>	<a href="#">Permission</a>	In/Out	The permission.

### 6.24.2. list GET

List all the permissions of the specific entity.

For example to list all the permissions of the cluster with id **123** send a request like this:

```
GET /ovirt-engine/api/clusters/123/permissions
```

```
<permissions>
  <permission id="456">
    <cluster id="123"/>
    <role id="789"/>
    <user id="451"/>
  </permission>
  <permission id="654">
    <cluster id="123"/>
    <role id="789"/>
    <group id="127"/>
  </permission>
</permissions>
```

The order of the returned permissions isn't guaranteed.

**Table 6.63. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>permissions</b>	Permission[]	Out	The list of permissions.

#### 6.24.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.25. ASSIGNEDROLES

Represents a roles sub-collection, for example scoped by user.

**Table 6.64. Methods summary**

Name	Summary
<b>list</b>	Returns the roles assigned to the permission.

#### 6.25.1. list GET

Returns the roles assigned to the permission.

The order of the returned roles isn't guaranteed.

**Table 6.65. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of roles to return.
<b>roles</b>	Role[]	Out	

### 6.25.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.25.1.2. max

Sets the maximum number of roles to return. If not specified all the roles are returned.

## 6.26. ASSIGNEDTAG

A service to manage assignment of specific tag to specific entities in system.

Table 6.66. Methods summary

Name	Summary
<b>get</b>	Gets the information about the assigned tag.
<b>remove</b>	Unassign tag from specific entity in the system.

### 6.26.1. get GET

Gets the information about the assigned tag.

For example to retrieve the information about the tag with the id **456** which is assigned to virtual machine with id **123** send a request like this:

```
GET /ovirt-engine/api/vms/123/tags/456
```

```
<tag href="/ovirt-engine/api/tags/456" id="456">
  <name>root</name>
  <description>root</description>
  <vm href="/ovirt-engine/api/vms/123" id="123"/>
</tag>
```

Table 6.67. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
<b>tag</b>	Tag	Out	The assigned tag.

### 6.26.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.26.2. remove DELETE

Unassign tag from specific entity in the system.

For example to unassign the tag with id **456** from virtual machine with id **123** send a request like this:

```
DELETE /ovirt-engine/api/vms/123/tags/456
```

Table 6.68. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

## 6.27. ASSIGNEDTAGS

A service to manage collection of assignment of tags to specific entities in system.

Table 6.69. Methods summary

Name	Summary
<b>add</b>	Assign tag to specific entity in the system.
<b>list</b>	List all tags assigned to the specific entity.

### 6.27.1. add POST

Assign tag to specific entity in the system.

For example to assign tag **mytag** to virtual machine with the id **123** send a request like this:

```
POST /ovirt-engine/api/vms/123/tags
```

With a request body like this:

```
<tag>
  <name>mytag</name>
</tag>
```

Table 6.70. Parameters summary

Name	Type	Direction	Summary
<b>tag</b>	Tag	In/Out	The assigned tag.

### 6.27.2. list GET

List all tags assigned to the specific entity.

For example to list all the tags of the virtual machine with id **123** send a request like this:

```
GET /ovirt-engine/api/vms/123/tags
```

```
<tags>
  <tag href="/ovirt-engine/api/tags/222" id="222">
    <name>mytag</name>
    <description>mytag</description>
    <vm href="/ovirt-engine/api/vms/123" id="123"/>
  </tag>
</tags>
```

The order of the returned tags isn't guaranteed.

Table 6.71. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of tags to return.
<b>tags</b>	Tag[]	Out	The list of assigned tags.

#### 6.27.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.27.2.2. max

Sets the maximum number of tags to return. If not specified all the tags are returned.

## 6.28. ASSIGNEDVNICPROFILE

Table 6.72. Methods summary

Name	Summary
<b>get</b>	
<b>remove</b>	

### 6.28.1. get GET

Table 6.73. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>profile</b>	<a href="#">VnicProfile</a>	Out	

#### 6.28.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.28.2. remove DELETE

Table 6.74. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the remove should be performed asynchronously.

## 6.29. ASSIGNEDVNICPROFILES

Table 6.75. Methods summary

Name	Summary
<b>add</b>	Add a new virtual network interface card profile for the network.
<b>list</b>	Returns the list of VNIC profiles assigned to the network.

### 6.29.1. add POST

Add a new virtual network interface card profile for the network.

Table 6.76. Parameters summary

Name	Type	Direction	Summary
<b>profile</b>	VnicProfile	In/Out	

### 6.29.2. list GET

Returns the list of VNIC profiles assigned to the network.

The order of the returned VNIC profiles isn't guaranteed.

Table 6.77. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of profiles to return.
<b>profiles</b>	VnicProfile[]	Out	

#### 6.29.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.29.2.2. max

Sets the maximum number of profiles to return. If not specified all the profiles are returned.

## 6.30. ATTACHEDSTORAGEDOMAIN

Table 6.78. Methods summary

Name	Summary
<b>activate</b>	This operation activates an attached storage domain.
<b>deactivate</b>	This operation deactivates an attached storage domain.
<b>get</b>	
<b>remove</b>	

### 6.30.1. activate POST

This operation activates an attached storage domain. Once the storage domain is activated it is ready for use with the data center.

POST /ovirt-engine/api/datacenters/123/storagedomains/456/activate

The activate action does not take any action specific parameters, so the request body should contain an empty **action**:

<action/>

Table 6.79. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the activation should be performed asynchronously.

### 6.30.2. deactivate POST

This operation deactivates an attached storage domain. Once the storage domain is deactivated it will not be used with the data center. For example, to deactivate storage domain **456**, send the following request:

POST /ovirt-engine/api/datacenters/123/storagedomains/456/deactivate

With a request body like this:

<action/>

If the **force** parameter is **true** then the operation will succeed, even if the OVF update which takes place before the deactivation of the storage domain failed. If the **force** parameter is **false** and the OVF update failed, the deactivation of the storage domain will also fail.

Table 6.80. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the deactivation should be performed asynchronously.
<b>force</b>	Boolean	In	Indicates if the operation should succeed and the storage domain should be moved to a deactivated state, even if the OVF update for the storage domain failed.

#### 6.30.2.1. force

Indicates if the operation should succeed and the storage domain should be moved to a deactivated state, even if the OVF update for the storage domain failed. For example, to deactivate storage domain **456** using force flag, send the following request:

POST /ovirt-engine/api/datacenters/123/storagedomains/456/deactivate

With a request body like this:

```
<action>
  <force>true</force>
</action>
```

This parameter is optional, and the default value is **false**.

### 6.30.3. get GET

Table 6.81. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>storage_domain</b>	StorageDomain	Out	

#### 6.30.3.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.30.4. remove DELETE

Table 6.82. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

## 6.31. ATTACHEDSTORAGEDOMAINDISK

Manages a single disk available in a storage domain attached to a data center.



### IMPORTANT

Since version 4.2 of the engine this service is intended only to list disks available in the storage domain, and to register unregistered disks. All the other operations, like copying a disk, moving a disk, etc, have been deprecated and will be removed in the future. To perform those operations use the [service that manages all the disks of the system](#) or the [service that manages a specific disk](#).

Table 6.83. Methods summary

Name	Summary
<b>copy</b>	Copies a disk to the specified storage domain.
<b>export</b>	Exports a disk to an export storage domain.
<b>get</b>	Retrieves the description of the disk.
<b>move</b>	Moves a disk to another storage domain.
<b>register</b>	Registers an unregistered disk.
<b>remove</b>	Removes a disk.
<b>sparsify</b>	Sparsify the disk.
<b>update</b>	Updates the disk.

### 6.31.1. copy POST

Copies a disk to the specified storage domain.



#### IMPORTANT

Since version 4.2 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To copy a disk use the [copy](#) operation of the service that manages that disk.

Table 6.84. Parameters summary

Name	Type	Direction	Summary
<b>disk</b>	<a href="#">Disk</a>	In	Description of the resulting disk.
<b>storage_domain</b>	<a href="#">StorageDomain</a>	In	The storage domain where the new disk will be created.

### 6.31.2. export POST

Exports a disk to an export storage domain.



#### IMPORTANT

Since version 4.2 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To export a disk use the [export](#) operation of the service that manages that disk.

Table 6.85. Parameters summary

Name	Type	Direction	Summary
<b>storage_domain</b>	<a href="#">StorageDomain</a>	In	The export storage domain where the disk should be exported to.

### 6.31.3. get GET

Retrieves the description of the disk.

Table 6.86. Parameters summary

Name	Type	Direction	Summary
<b>disk</b>	<a href="#">Disk</a>	Out	The description of the disk.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

#### 6.31.3.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.31.4. move POST

Moves a disk to another storage domain.



#### IMPORTANT

Since version 4.2 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To move a disk use the [move](#) operation of the service that manages that disk.

Table 6.87. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the move should be performed asynchronously.
<b>filter</b>	<a href="#">Boolean</a>	In	Indicates if the results should be filtered according to the permissions of the user.
<b>storage_domain</b>	<a href="#">StorageDomain</a>	In	The storage domain where the disk will be moved to.

### 6.31.5. register POST

Registers an unregistered disk.

### 6.31.6. remove DELETE

Removes a disk.



#### IMPORTANT

Since version 4.2 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To remove a disk use the [remove](#) operation of the service that manages that disk.

### 6.31.7. sparsify POST

Sparsify the disk.



#### IMPORTANT

Since version 4.2 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To remove a disk use the [remove](#) operation of the service that manages that disk.

### 6.31.8. update PUT

Updates the disk.



#### IMPORTANT

Since version 4.2 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To update a disk use the [update](#) operation of the service that manages that disk.

Table 6.88. Parameters summary

Name	Type	Direction	Summary
<b>disk</b>	<a href="#">Disk</a>	In/Out	The update to apply to the disk.

## 6.32. ATTACHEDSTORAGEDOMAINDISKS

Manages the collection of disks available inside an storage domain that is attached to a data center.

Table 6.89. Methods summary

Name	Summary
<b>add</b>	Adds or registers a disk.
<b>list</b>	Retrieve the list of disks that are available in the storage domain.

### 6.32.1. add POST

Adds or registers a disk.



### IMPORTANT

Since version 4.2 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To add a new disk use the [add](#) operation of the service that manages the disks of the system. To register an unregistered disk use the [register](#) operation of the service that manages that disk.

Table 6.90. Parameters summary

Name	Type	Direction	Summary
<b>disk</b>	<a href="#">Disk</a>	In/Out	The disk to add or register.
<b>unregistered</b>	<a href="#">Boolean</a>	In	Indicates if a new disk should be added or if an existing unregistered disk should be registered.

#### 6.32.1.1. unregistered

Indicates if a new disk should be added or if an existing unregistered disk should be registered. If the value is **true** then the identifier of the disk to register needs to be provided. For example, to register the disk with id **456** send a request like this:

```
POST /ovirt-engine/api/storagedomains/123/disks?unregistered=true
```

With a request body like this:

```
<disk id="456"/>
```

If the value is **false** then a new disk will be created in the storage domain. In that case the **provisioned\_size**, **format** and **name** attributes are mandatory. For example, to create a new *copy on write* disk of 1 GiB, send a request like this:

```
POST /ovirt-engine/api/storagedomains/123/disks
```

With a request body like this:

```
<disk>
  <name>mydisk</name>
  <format>cow</format>
  <provisioned_size>1073741824</provisioned_size>
</disk>
```

The default value is **false**.

#### 6.32.2. list GET

Retrieve the list of disks that are available in the storage domain.

Table 6.91. Parameters summary

Name	Type	Direction	Summary
<b>disks</b>	<a href="#">Disk[]</a>	Out	List of retrieved disks.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of disks to return.

### 6.32.2.1. disks

List of retrieved disks.

The order of the returned disks isn't guaranteed.

### 6.32.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.32.2.3. max

Sets the maximum number of disks to return. If not specified all the disks are returned.

## 6.33. ATTACHEDSTORAGEDOMAINS

Manages the storage domains attached to a data center.

Table 6.92. Methods summary

Name	Summary
<b>add</b>	Attaches an existing storage domain to the data center.
<b>list</b>	Returns the list of storage domains attached to the data center.

### 6.33.1. add POST

Attaches an existing storage domain to the data center.

Table 6.93. Parameters summary

Name	Type	Direction	Summary
<b>storage_domain</b>	<a href="#">StorageDomain</a>	In/Out	The storage domain to attach to the data center.

### 6.33.2. list GET

Returns the list of storage domains attached to the data center.

The order of the returned storage domains isn't guaranteed.

**Table 6.94. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of storage domains to return.
<b>storage_domains</b>	<a href="#">StorageDomain[]</a>	Out	A list of storage domains that are attached to the data center.

### 6.33.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.33.2.2. max

Sets the maximum number of storage domains to return. If not specified all the storage domains are returned.

## 6.34. BALANCE

**Table 6.95. Methods summary**

Name	Summary
<b>get</b>	
<b>remove</b>	

### 6.34.1. get GET

**Table 6.96. Parameters summary**

Name	Type	Direction	Summary
<b>balance</b>	<a href="#">Balance</a>	Out	
<b>filter</b>	<a href="#">Boolean</a>	In	Indicates if the results should be filtered according to the permissions of the user.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

#### 6.34.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.34.2. remove DELETE

Table 6.97. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the remove should be performed asynchronously.

## 6.35. BALANCES

Table 6.98. Methods summary

Name	Summary
<b>add</b>	Add a balance module to a specified user defined scheduling policy.
<b>list</b>	Returns the list of balance modules used by the scheduling policy.

### 6.35.1. add POST

Add a balance module to a specified user defined scheduling policy.

Table 6.99. Parameters summary

Name	Type	Direction	Summary
<b>balance</b>	<a href="#">Balance</a>	In/Out	

### 6.35.2. list GET

Returns the list of balance modules used by the scheduling policy.

The order of the returned balance modules isn't guaranteed.

Table 6.100. Parameters summary

Name	Type	Direction	Summary
<b>balances</b>	<a href="#">Balance[]</a>	Out	
<b>filter</b>	<a href="#">Boolean</a>	In	Indicates if the results should be filtered according to the permissions of the user.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
<b>max</b>	Integer	In	Sets the maximum number of balances to return.

### 6.35.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.35.2.2. max

Sets the maximum number of balances to return. If not specified all the balances are returned.

## 6.36. BOOKMARK

A service to manage a bookmark.

Table 6.101. Methods summary

Name	Summary
<b>get</b>	Get a bookmark.
<b>remove</b>	Remove a bookmark.
<b>update</b>	Update a bookmark.

### 6.36.1. get GET

Get a bookmark.

An example for getting a bookmark:

```
GET /ovirt-engine/api/bookmarks/123
```

```
<bookmark href="/ovirt-engine/api/bookmarks/123" id="123">
  <name>example_vm</name>
  <value>vm: name=example*</value>
</bookmark>
```

Table 6.102. Parameters summary

Name	Type	Direction	Summary
<b>bookmark</b>	Bookmark	Out	The requested bookmark.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

### 6.36.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.36.2. remove DELETE

Remove a bookmark.

An example for removing a bookmark:

```
DELETE /ovirt-engine/api/bookmarks/123
```

Table 6.103. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

### 6.36.3. update PUT

Update a bookmark.

An example for updating a bookmark:

```
PUT /ovirt-engine/api/bookmarks/123
```

With the request body:

```
<bookmark>
  <name>new_example_vm</name>
  <value>vm: name=new_example*</value>
</bookmark>
```

Table 6.104. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>bookmark</b>	Bookmark	In/Out	The updated bookmark.

## 6.37. BOOKMARKS

A service to manage bookmarks.

Table 6.105. Methods summary

Name	Summary
<b>add</b>	Adding a new bookmark.
<b>list</b>	Listing all the available bookmarks.

### 6.37.1. add POST

Adding a new bookmark.

Example of adding a bookmark:

```
POST /ovirt-engine/api/bookmarks
```

```
<bookmark>
  <name>new_example_vm</name>
  <value>vm: name=new_example*</value>
</bookmark>
```

Table 6.106. Parameters summary

Name	Type	Direction	Summary
<b>bookmark</b>	Bookmark	In/Out	The added bookmark.

### 6.37.2. list GET

Listing all the available bookmarks.

Example of listing bookmarks:

```
GET /ovirt-engine/api/bookmarks
```

```
<bookmarks>
  <bookmark href="/ovirt-engine/api/bookmarks/123" id="123">
    <name>database</name>
    <value>vm: name=database*</value>
  </bookmark>
  <bookmark href="/ovirt-engine/api/bookmarks/456" id="456">
    <name>example</name>
    <value>vm: name=example*</value>
  </bookmark>
</bookmarks>
```

The order of the returned bookmarks isn't guaranteed.

Table 6.107. Parameters summary

Name	Type	Direction	Summary
<b>bookmarks</b>	<a href="#">Bookmark[]</a>	Out	The list of available bookmarks.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of bookmarks to return.

### 6.37.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.37.2.2. max

Sets the maximum number of bookmarks to return. If not specified all the bookmarks are returned.

## 6.38. CLUSTER

A service to manage a specific cluster.

Table 6.108. Methods summary

Name	Summary
<b>get</b>	Gets information about the cluster.
<b>refreshglusterhealstatus</b>	Refresh the Gluster heal info for all volumes in cluster.
<b>remove</b>	Removes the cluster from the system.
<b>resetemulatedmachine</b>	
<b>syncallnetworks</b>	Synchronizes all networks on the cluster.
<b>update</b>	Updates information about the cluster.
<b>upgrade</b>	Start, update or finish upgrade process for the cluster based on the action value.

### 6.38.1. get GET

Gets information about the cluster.

An example of getting a cluster:

```
GET /ovirt-engine/api/clusters/123
```

```

<cluster href="/ovirt-engine/api/clusters/123" id="123">
  <actions>
    <link href="/ovirt-engine/api/clusters/123/resetemulatedmachine" rel="resetemulatedmachine"/>
  </actions>
  <name>Default</name>
  <description>The default server cluster</description>
  <link href="/ovirt-engine/api/clusters/123/networks" rel="networks"/>
  <link href="/ovirt-engine/api/clusters/123/permissions" rel="permissions"/>
  <link href="/ovirt-engine/api/clusters/123/glustervolumes" rel="glustervolumes"/>
  <link href="/ovirt-engine/api/clusters/123/glusterhooks" rel="glusterhooks"/>
  <link href="/ovirt-engine/api/clusters/123/affinitygroups" rel="affinitygroups"/>
  <link href="/ovirt-engine/api/clusters/123/cpuprofiles" rel="cpuprofiles"/>
  <ballooning_enabled>>false</ballooning_enabled>
  <cpu>
    <architecture>x86_64</architecture>
    <type>Intel Nehalem Family</type>
  </cpu>
  <error_handling>
    <on_error>migrate</on_error>
  </error_handling>
  <fencing_policy>
    <enabled>>true</enabled>
    <skip_if_connectivity_broken>
      <enabled>>false</enabled>
      <threshold>50</threshold>
    </skip_if_connectivity_broken>
    <skip_if_sd_active>
      <enabled>>false</enabled>
    </skip_if_sd_active>
  </fencing_policy>
  <gluster_service>>false</gluster_service>
  <ha_reservation>>false</ha_reservation>
  <ksm>
    <enabled>>true</enabled>
    <merge_across_nodes>>true</merge_across_nodes>
  </ksm>
  <memory_policy>
    <over_commit>
      <percent>100</percent>
    </over_commit>
    <transparent_hugepages>
      <enabled>>true</enabled>
    </transparent_hugepages>
  </memory_policy>
  <migration>
    <auto_converge>inherit</auto_converge>
    <bandwidth>
      <assignment_method>auto</assignment_method>
    </bandwidth>
    <compressed>inherit</compressed>
  </migration>
  <required_rng_sources>
    <required_rng_source>random</required_rng_source>
  </required_rng_sources>
  <scheduling_policy href="/ovirt-engine/api/schedulingpolicies/456" id="456"/>
  <threads_as_cores>>false</threads_as_cores>

```

```

<trusted_service>>false</trusted_service>
<tunnel_migration>>false</tunnel_migration>
<version>
  <major>4</major>
  <minor>0</minor>
</version>
<virt_service>>true</virt_service>
<data_center href="/ovirt-engine/api/datacenters/111" id="111"/>
</cluster>

```

Table 6.109. Parameters summary

Name	Type	Direction	Summary
<b>cluster</b>	Cluster	Out	
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

### 6.38.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.38.2. refreshglusterhealstatus POST

Refresh the Gluster heal info for all volumes in cluster.

For example, Cluster **123**, send a request like this:

```
POST /ovirt-engine/api/clusters/123/refreshglusterhealstatus
```

### 6.38.3. remove DELETE

Removes the cluster from the system.

```
DELETE /ovirt-engine/api/clusters/00000000-0000-0000-0000-000000000000
```

Table 6.110. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

### 6.38.4. resetemulatedmachine POST

Table 6.111. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the reset should be performed asynchronously.

### 6.38.5. syncallnetworks POST

Synchronizes all networks on the cluster.

POST /ovirt-engine/api/clusters/123/syncallnetworks

With a request body like this:

```
<action/>
```

Table 6.112. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the action should be performed asynchronously.

### 6.38.6. update PUT

Updates information about the cluster.

Only the specified fields are updated; others remain unchanged.

For example, to update the cluster's CPU:

PUT /ovirt-engine/api/clusters/123

With a request body like this:

```
<cluster>
  <cpu>
    <type>Intel Haswell-noTSX Family</type>
  </cpu>
</cluster>
```

Table 6.113. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>cluster</b>	Cluster	In/Out	

### 6.38.7. upgrade POST

Start, update or finish upgrade process for the cluster based on the action value. This action marks the cluster for upgrade, updates the progress, or clears the upgrade running flag on the cluster based on the action value which takes values of **start**, **stop** or **update\_progress**.

```
POST /ovirt-engine/api/clusters/123/upgrade
```

With a request body like this to mark the cluster for upgrade:

```
<action>
  <upgrade_action>
    start
  </upgrade_action>
</action>
```

After starting the upgrade, use a request body like this to update the progress to 15%:

```
<action>
  <upgrade_action>
    update_progress
  </upgrade_action>
  <upgrade_percent_complete>
    15
  </upgrade_percent_complete>
</action>
```

Table 6.114. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the action should be performed asynchronously.
<b>correlation_id</b>	String	In	Explicitly set the upgrade correlation identifier.
<b>upgrade_action</b>	ClusterUpgradeAction	In	The action to be performed.
<b>upgrade_percent_complete</b>	Integer	In	Update the upgrade's progress as a percent complete of the total process.

#### 6.38.7.1. correlation\_id

Explicitly set the upgrade correlation identifier. Use to correlate events detailing the cluster upgrade to the upgrade itself. If not specified, the correlation id from **Correlation-Id** http header will be used.

## 6.39. CLUSTERENABLEDFEATURE

Represents a feature enabled for the cluster.

Table 6.115. Methods summary

Name	Summary
<b>get</b>	Provides the information about the cluster feature enabled.
<b>remove</b>	Disables a cluster feature.

### 6.39.1. get GET

Provides the information about the cluster feature enabled.

For example, to find details of the enabled feature **456** for cluster **123**, send a request like this:

```
GET /ovirt-engine/api/clusters/123/enabledfeatures/456
```

That will return a [ClusterFeature](#) object containing the name:

```
<cluster_feature id="456">
  <name>libgfapi_supported</name>
</cluster_feature>
```

Table 6.116. Parameters summary

Name	Type	Direction	Summary
<b>feature</b>	<a href="#">ClusterFeature</a>	Out	Retrieved cluster feature that's enabled.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

#### 6.39.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.39.2. remove DELETE

Disables a cluster feature.

For example, to disable the feature **456** of cluster **123** send a request like this:

```
DELETE /ovirt-engine/api/clusters/123/enabledfeatures/456
```

## 6.40. CLUSTERENABLEDFEATURES

Provides information about the additional features that are enabled for this cluster. The features that are enabled are the available features for the cluster level

Table 6.117. Methods summary

Name	Summary
<b>add</b>	Enable an additional feature for a cluster.
<b>list</b>	Lists the additional features enabled for the cluster.

### 6.40.1. add POST

Enable an additional feature for a cluster.

For example, to enable a feature **456** on cluster **123**, send a request like this:

```
POST /ovirt-engine/api/clusters/123/enabledfeatures
```

The request body should look like this:

```
<cluster_feature id="456"/>
```

Table 6.118. Parameters summary

Name	Type	Direction	Summary
<b>feature</b>	ClusterFeature	In/Out	

### 6.40.2. list GET

Lists the additional features enabled for the cluster.

For example, to get the features enabled for cluster **123** send a request like this:

```
GET /ovirt-engine/api/clusters/123/enabledfeatures
```

This will return a list of features:

```
<enabled_features>
  <cluster_feature id="123">
    <name>test_feature</name>
  </cluster_feature>
  ...
</enabled_features>
```

Table 6.119. Parameters summary

Name	Type	Direction	Summary
<b>features</b>	ClusterFeature[]	Out	Retrieved features.

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

#### 6.40.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.41. CLUSTEREXTERNALPROVIDERS

This service lists external providers.

Table 6.120. Methods summary

Name	Summary
<b>list</b>	Returns the list of external providers.

#### 6.41.1. list GET

Returns the list of external providers.

The order of the returned list of providers is not guaranteed.

Table 6.121. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>providers</b>	ExternalProvider[]	Out	

#### 6.41.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.42. CLUSTERFEATURE

Represents a feature enabled for the cluster level

Table 6.122. Methods summary

Name	Summary
<b>get</b>	Provides the information about the a cluster feature supported by a cluster level.

### 6.42.1. get GET

Provides the information about the a cluster feature supported by a cluster level.

For example, to find details of the cluster feature **456** for cluster level 4.1, send a request like this:

```
GET /ovirt-engine/api/clusterlevels/4.1/clusterfeatures/456
```

That will return a [ClusterFeature](#) object containing the name:

```
<cluster_feature id="456">
  <name>libgfapi_supported</name>
</cluster_feature>
```

Table 6.123. Parameters summary

Name	Type	Direction	Summary
<b>feature</b>	<a href="#">ClusterFeature</a>	Out	Retrieved cluster feature.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

#### 6.42.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.43. CLUSTERFEATURES

Provides information about the cluster features that are supported by a cluster level.

Table 6.124. Methods summary

Name	Summary
<b>list</b>	Lists the cluster features supported by the cluster level.

### 6.43.1. list GET

Lists the cluster features supported by the cluster level.

```
GET /ovirt-engine/api/clusterlevels/4.1/clusterfeatures
```

This will return a list of cluster features supported by the cluster level:

```
<cluster_features>
  <cluster_feature id="123">
    <name>test_feature</name>
```

```

</cluster_feature>
...
</cluster_features>

```

Table 6.125. Parameters summary

Name	Type	Direction	Summary
<b>features</b>	ClusterFeature[]	Out	Retrieved features.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

#### 6.43.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.44. CLUSTERLEVEL

Provides information about a specific cluster level. See the [ClusterLevels](#) service for more information.

Table 6.126. Methods summary

Name	Summary
<b>get</b>	Provides the information about the capabilities of the specific cluster level managed by this service.

### 6.44.1. get GET

Provides the information about the capabilities of the specific cluster level managed by this service.

For example, to find what CPU types are supported by level 3.6 you can send a request like this:

```
GET /ovirt-engine/api/clusterlevels/3.6
```

That will return a [ClusterLevel](#) object containing the supported CPU types, and other information which describes the cluster level:

```

<cluster_level id="3.6">
  <cpu_types>
    <cpu_type>
      <name>Intel Nehalem Family</name>
      <level>3</level>
      <architecture>x86_64</architecture>
    </cpu_type>
    ...
  </cpu_types>
  <permits>
    <permit id="1">

```

```

    <name>create_vm</name>
    <administrative>>false</administrative>
  </permit>
  ...
</permits>
</cluster_level>

```

Table 6.127. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>level</b>	ClusterLevel	Out	Retrieved cluster level.

#### 6.44.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.45. CLUSTERLEVELS

Provides information about the capabilities of different cluster levels supported by the engine. Version 4.0 of the engine supports levels 4.0 and 3.6. Each of these levels support different sets of CPU types, for example. This service provides that information.

Table 6.128. Methods summary

Name	Summary
<b>list</b>	Lists the cluster levels supported by the system.

#### 6.45.1. list GET

Lists the cluster levels supported by the system.

```
GET /ovirt-engine/api/clusterlevels
```

This will return a list of available cluster levels.

```

<cluster_levels>
  <cluster_level id="4.0">
    ...
  </cluster_level>
  ...
</cluster_levels>

```

The order of the returned cluster levels isn't guaranteed.

Table 6.129. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>levels</b>	ClusterLevel []	Out	Retrieved cluster levels.

#### 6.45.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.46. CLUSTERNETWORK

A service to manage a specific cluster network.

Table 6.130. Methods summary

Name	Summary
<b>get</b>	Retrieves the cluster network details.
<b>remove</b>	Unassigns the network from a cluster.
<b>update</b>	Updates the network in the cluster.

#### 6.46.1. get GET

Retrieves the cluster network details.

Table 6.131. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>network</b>	Network	Out	The cluster network.

#### 6.46.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.46.2. remove DELETE

Unassigns the network from a cluster.

#### 6.46.3. update PUT

Updates the network in the cluster.

**Table 6.132. Parameters summary**

Name	Type	Direction	Summary
<b>network</b>	<a href="#">Network</a>	In/Out	The cluster network.

## 6.47. CLUSTER NETWORKS

A service to manage cluster networks.

**Table 6.133. Methods summary**

Name	Summary
<b>add</b>	Assigns the network to a cluster.
<b>list</b>	Lists the networks that are assigned to the cluster.

### 6.47.1. add POST

Assigns the network to a cluster.

Post a request like in the example below to assign the network to a cluster:

```
POST /ovirt-engine/api/clusters/123/networks
```

Use the following example in its body:

```
<network id="123" />
```

**Table 6.134. Parameters summary**

Name	Type	Direction	Summary
<b>network</b>	<a href="#">Network</a>	In/Out	The network object to be assigned to the cluster.

### 6.47.2. list GET

Lists the networks that are assigned to the cluster.

The order of the returned clusters isn't guaranteed.

**Table 6.135. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of networks to return.
<b>networks</b>	<a href="#">Network[]</a>	Out	The list of networks that are assigned to the cluster.

### 6.47.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.47.2.2. max

Sets the maximum number of networks to return. If not specified, all the networks are returned.

## 6.48. CLUSTERS

A service to manage clusters.

Table 6.136. Methods summary

Name	Summary
<b>add</b>	Creates a new cluster.
<b>list</b>	Returns the list of clusters of the system.

### 6.48.1. add POST

Creates a new cluster.

This requires the **name**, **cpu.type**, and **data\_center** attributes. Identify the data center with either the **id** or **name** attribute.

```
POST /ovirt-engine/api/clusters
```

With a request body like this:

```
<cluster>
  <name>mycluster</name>
  <cpu>
    <type>Intel Nehalem Family</type>
  </cpu>
  <data_center id="123"/>
</cluster>
```

To create a cluster with an external network provider to be deployed on every host that is added to the cluster, send a request like this:

```
POST /ovirt-engine/api/clusters
```

With a request body containing a reference to the desired provider:

```
<cluster>
  <name>mycluster</name>
  <cpu>
    <type>Intel Nehalem Family</type>
  </cpu>
  <data_center id="123"/>
  <external_network_providers>
    <external_provider name="ovirt-provider-ovn"/>
  </external_network_providers>
</cluster>
```

Table 6.137. Parameters summary

Name	Type	Direction	Summary
<b>cluster</b>	Cluster	In/Out	

## 6.48.2. list GET

Returns the list of clusters of the system.

The order of the returned clusters is guaranteed only if the **sortby** clause is included in the **search** parameter.

Table 6.138. Parameters summary

Name	Type	Direction	Summary
<b>case_sensitive</b>	Boolean	In	Indicates if the search should be performed taking case into account.
<b>clusters</b>	Cluster[]	Out	
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of clusters to return.
<b>search</b>	String	In	A query string used to restrict the returned clusters.

### 6.48.2.1. case\_sensitive

Indicates if the search should be performed taking case into account. The default value is **true**, which means that case is taken into account. To search ignoring case, set it to **false**.

### 6.48.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.48.2.3. max

Sets the maximum number of clusters to return. If not specified, all the clusters are returned.

## 6.49. COPYABLE

Table 6.139. Methods summary

Name	Summary
<b>copy</b>	

### 6.49.1. copy POST

Table 6.140. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the copy should be performed asynchronously.

## 6.50. CPUPROFILE

Table 6.141. Methods summary

Name	Summary
<b>get</b>	
<b>remove</b>	
<b>update</b>	Update the specified cpu profile in the system.

### 6.50.1. get GET

Table 6.142. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>profile</b>	<a href="#">CpuProfile</a>	Out	

#### 6.50.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.50.2. remove DELETE

Table 6.143. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the remove should be performed asynchronously.

### 6.50.3. update PUT

Update the specified cpu profile in the system.

Table 6.144. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the update should be performed asynchronously.
<b>profile</b>	<a href="#">CpuProfile</a>	In/Out	

## 6.51. CPUPROFILES

Table 6.145. Methods summary

Name	Summary
<b>add</b>	Add a new cpu profile to the system.
<b>list</b>	Returns the list of CPU profiles of the system.

### 6.51.1. add POST

Add a new cpu profile to the system.

Table 6.146. Parameters summary

Name	Type	Direction	Summary
<b>profile</b>	<a href="#">CpuProfile</a>	In/Out	

### 6.51.2. list GET

Returns the list of CPU profiles of the system.

The order of the returned list of CPU profiles is random.

**Table 6.147. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of profiles to return.
<b>profile</b>	CpuProfile[]	Out	

### 6.51.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.51.2.2. max

Sets the maximum number of profiles to return. If not specified, all the profiles are returned.

## 6.52. DATACENTER

A service to manage a data center.

**Table 6.148. Methods summary**

Name	Summary
<b>cleanfinishedtasks</b>	Currently, the storage pool manager (SPM) fails to switch to another host if the SPM has uncleared tasks.
<b>get</b>	Get a data center.
<b>remove</b>	Removes the data center.
<b>setmaster</b>	Used for manually setting a storage domain in the data center as a master.
<b>update</b>	Updates the data center.

### 6.52.1. cleanfinishedtasks POST

Currently, the storage pool manager (SPM) fails to switch to another host if the SPM has uncleared tasks. Clearing all finished tasks enables the SPM switching.

For example, to clean all the finished tasks on a data center with ID **123** send a request like this:

```
POST /ovirt-engine/api/datacenters/123/cleanfinishedtasks
```

With a request body like this:

`<action/>`

Table 6.149. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the action should be performed asynchronously.

### 6.52.2. get GET

Get a data center.

An example of getting a data center:

GET /ovirt-engine/api/datacenters/123

```
<data_center href="/ovirt-engine/api/datacenters/123" id="123">
  <name>Default</name>
  <description>The default Data Center</description>
  <link href="/ovirt-engine/api/datacenters/123/clusters" rel="clusters"/>
  <link href="/ovirt-engine/api/datacenters/123/storagedomains" rel="storagedomains"/>
  <link href="/ovirt-engine/api/datacenters/123/permissions" rel="permissions"/>
  <link href="/ovirt-engine/api/datacenters/123/networks" rel="networks"/>
  <link href="/ovirt-engine/api/datacenters/123/quotas" rel="quotas"/>
  <link href="/ovirt-engine/api/datacenters/123/qoss" rel="qoss"/>
  <link href="/ovirt-engine/api/datacenters/123/iscsibonds" rel="iscsibonds"/>
  <local>>false</local>
  <quota_mode>disabled</quota_mode>
  <status>up</status>
  <storage_format>v3</storage_format>
  <supported_versions>
    <version>
      <major>4</major>
      <minor>0</minor>
    </version>
  </supported_versions>
  <version>
    <major>4</major>
    <minor>0</minor>
  </version>
  <mac_pool href="/ovirt-engine/api/macpools/456" id="456"/>
</data_center>
```

Table 6.150. Parameters summary

Name	Type	Direction	Summary
<b>data_center</b>	DataCenter	Out	

Name	Type	Direction	Summary
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

### 6.52.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.52.3. remove DELETE

Removes the data center.

```
DELETE /ovirt-engine/api/datacenters/123
```

Without any special parameters, the storage domains attached to the data center are detached and then removed from the storage. If something fails when performing this operation, for example if there is no host available to remove the storage domains from the storage, the complete operation will fail.

If the **force** parameter is **true** then the operation will always succeed, even if something fails while removing one storage domain, for example. The failure is just ignored and the data center is removed from the database anyway.

Table 6.151. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.
<b>force</b>	Boolean	In	Indicates if the operation should succeed, and the storage domain removed from the database, even if something fails during the operation.

#### 6.52.3.1. force

Indicates if the operation should succeed, and the storage domain removed from the database, even if something fails during the operation.

This parameter is optional, and the default value is **false**.

### 6.52.4. setmaster POST

Used for manually setting a storage domain in the data center as a master. For example, for setting a storage domain with ID '456' as a master on a data center with ID '123', send a request like this:

POST /ovirt-engine/api/datacenters/123/setmaster

With a request body like this:

```
<action>
  <storage_domain id="456"/>
</action>
```

The new master storage domain can be also specified by its name.

Table 6.152. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the action should be performed asynchronously.
<b>storage_domain</b>	StorageDomain	In	The new master storage domain for the data center.

### 6.52.5. update PUT

Updates the data center.

The **name**, **description**, **storage\_type**, **version**, **storage\_format** and **mac\_pool** elements are updatable post-creation. For example, to change the name and description of data center **123** send a request like this:

PUT /ovirt-engine/api/datacenters/123

With a request body like this:

```
<data_center>
  <name>myupdatedname</name>
  <description>An updated description for the data center</description>
</data_center>
```

Table 6.153. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>data_center</b>	DataCenter	In/Out	The data center that is being updated.

## 6.53. DATACENTERNETWORK

A service to manage a specific data center network.

Table 6.154. Methods summary

Name	Summary
<b>get</b>	Retrieves the data center network details.
<b>remove</b>	Removes the network.
<b>update</b>	Updates the network in the data center.

### 6.53.1. get GET

Retrieves the data center network details.

Table 6.155. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>network</b>	<a href="#">Network</a>	Out	The data center network.

#### 6.53.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.53.2. remove DELETE

Removes the network.

### 6.53.3. update PUT

Updates the network in the data center.

Table 6.156. Parameters summary

Name	Type	Direction	Summary
<b>network</b>	<a href="#">Network</a>	In/Out	The data center network.

## 6.54. DATACENTERNETWORKS

A service to manage data center networks.

Table 6.157. Methods summary

Name	Summary
<b>add</b>	Create a new network in a data center.
<b>list</b>	Lists networks in the data center.

### 6.54.1. add POST

Create a new network in a data center.

Post a request like in the example below to create a new network in a data center with an ID of **123**.

```
POST /ovirt-engine/api/datacenters/123/networks
```

Use the following example in its body:

```
<network>
  <name>mynetwork</name>
</network>
```

Table 6.158. Parameters summary

Name	Type	Direction	Summary
<b>network</b>	<a href="#">Network</a>	In/Out	The network object to be created in the data center.

### 6.54.2. list GET

Lists networks in the data center.

The order of the returned list of networks isn't guaranteed.

Table 6.159. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of networks to return.
<b>networks</b>	<a href="#">Network[]</a>	Out	The list of networks which are in the data center.

#### 6.54.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.54.2.2. max

Sets the maximum number of networks to return. If not specified, all the networks are returned.

## 6.55. DATACENTERS

A service to manage data centers.

**Table 6.160. Methods summary**

Name	Summary
<b>add</b>	Creates a new data center.
<b>list</b>	Lists the data centers.

### 6.55.1. add POST

Creates a new data center.

Creation of a new data center requires the **name** and **local** elements. For example, to create a data center named **mydc** that uses shared storage (NFS, iSCSI or fibre channel) send a request like this:

```
POST /ovirt-engine/api/datacenters
```

With a request body like this:

```
<data_center>
  <name>mydc</name>
  <local>false</local>
</data_center>
```

**Table 6.161. Parameters summary**

Name	Type	Direction	Summary
<b>data_center</b>	DataCenter	In/Out	The data center that is being added.

### 6.55.2. list GET

Lists the data centers.

The following request retrieves a representation of the data centers:

```
GET /ovirt-engine/api/datacenters
```

The above request performed with **curl**:

```
curl \
  --request GET \
  --cacert /etc/pki/ovirt-engine/ca.pem \
```

```
--header "Version: 4" \
--header "Accept: application/xml" \
--user "admin@internal:mypassword" \
https://myengine.example.com/ovirt-engine/api/datacenters
```

This is what an example response could look like:

```
<data_center href="/ovirt-engine/api/datacenters/123" id="123">
  <name>Default</name>
  <description>The default Data Center</description>
  <link href="/ovirt-engine/api/datacenters/123/networks" rel="networks"/>
  <link href="/ovirt-engine/api/datacenters/123/storagedomains" rel="storagedomains"/>
  <link href="/ovirt-engine/api/datacenters/123/permissions" rel="permissions"/>
  <link href="/ovirt-engine/api/datacenters/123/clusters" rel="clusters"/>
  <link href="/ovirt-engine/api/datacenters/123/qoss" rel="qoss"/>
  <link href="/ovirt-engine/api/datacenters/123/iscsibonds" rel="iscsibonds"/>
  <link href="/ovirt-engine/api/datacenters/123/quotas" rel="quotas"/>
  <local>>false</local>
  <quota_mode>disabled</quota_mode>
  <status>up</status>
  <supported_versions>
    <version>
      <major>4</major>
      <minor>0</minor>
    </version>
  </supported_versions>
  <version>
    <major>4</major>
    <minor>0</minor>
  </version>
</data_center>
```

Note the **id** code of your **Default** data center. This code identifies this data center in relation to other resources of your virtual environment.

The data center also contains a link to the storage domains collection. The data center uses this collection to attach storage domains from the storage domains main collection.

The order of the returned list of data centers is guaranteed only if the **sortby** clause is included in the **search** parameter.

**Table 6.162. Parameters summary**

Name	Type	Direction	Summary
<b>case_sensitive</b>	Boolean	In	Indicates if the search performed using the <b>search</b> parameter should be performed taking case into account.
<b>data_centers</b>	DataCenter[ ]	Out	
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of data centers to return.
<b>search</b>	String	In	A query string used to restrict the returned data centers.

### 6.55.2.1. case\_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

### 6.55.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.55.2.3. max

Sets the maximum number of data centers to return. If not specified all the data centers are returned.

## 6.56. DISK

Manages a single disk.

Table 6.163. Methods summary

Name	Summary
<b>convert</b>	Converts disk format and/or preallocation mode.
<b>copy</b>	This operation copies a disk to the specified storage domain.
<b>export</b>	Exports a disk to an export storage domain.
<b>get</b>	Retrieves the description of the disk.
<b>move</b>	Moves a disk to another storage domain.
<b>reduce</b>	Reduces the size of the disk image.
<b>refreshlun</b>	Refreshes a direct LUN disk with up-to-date information from the storage.
<b>remove</b>	Removes a disk.

Name	Summary
<b>sparsify</b>	Sparsify the disk.
<b>update</b>	Updates the parameters of the specified disk.

### 6.56.1. convert POST

Converts disk format and/or preallocation mode.

For example, to convert the disk format from preallocated-cow to a sparse-raw image, send a request like the following:

```
POST /ovirt-engine/api/disks/123/convert
```

With the following request body:

```
<action>
  <disk>
    <sparse>true</sparse>
    <format>raw</format>
  </disk>
</action>
```

Note: In order to sparsify a disk, two conversions might be needed if the disk is on a Block Storage Domain. For example: If a disk is RAW, converting it to QCOW will result in a larger disk. In order to reduce the size, it is possible to convert the disk again to QCOW and keep the same allocation policy.

Table 6.164. Parameters summary

Name	Type	Direction	Summary
<b>disk</b>	Disk	In	The description of the disk.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

#### 6.56.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.56.2. copy POST

This operation copies a disk to the specified storage domain.

For example, a disk can be copied using the following request:

```
POST /ovirt-engine/api/disks/123/copy
```

With a request body like this:

```

<action>
  <storage_domain id="456"/>
  <disk>
    <name>mydisk</name>
  </disk>
</action>

```

If the disk profile or the quota currently used by the disk are not defined for the new storage domain, they can be explicitly specified. If they are not specified, the first available disk profile and the default quota are used.

For example, to specify disk profile **987** and quota **753**, send a request body like this:

```

<action>
  <storage_domain id="456"/>
  <disk_profile id="987"/>
  <quota id="753"/>
</action>

```

Table 6.165. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the copy should be performed asynchronously.
<b>disk</b>	Disk	In	
<b>disk_profile</b>	DiskProfile	In	Disk profile for the disk in the new storage domain.
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>quota</b>	Quota	In	Quota for the disk in the new storage domain.
<b>storage_domain</b>	StorageDomain	In	The storage domain where the new disk is created.

### 6.56.2.1. disk\_profile

Disk profile for the disk in the new storage domain.

Disk profiles are defined for storage domains, so the old disk profile will not exist in the new storage domain. If this parameter is not used, the first disk profile from the new storage domain to which the user has permissions will be assigned to the disk.

### 6.56.2.2. quota

Quota for the disk in the new storage domain.

This optional parameter can be used to specify new quota for the disk, because the current quota may not be defined for the new storage domain. If this parameter is not used and the old quota is not defined for the new storage domain, the default (unlimited) quota will be assigned to the disk.

### 6.56.2.3. storage\_domain

The storage domain where the new disk is created. This can be specified using the **id** or **name** attributes. For example, to copy a disk to the storage domain called **mydata**, send a request like this:

```
POST /ovirt-engine/api/storagedomains/123/disks/789
```

With a request body like this:

```
<action>
  <storage_domain>
    <name>mydata</name>
  </storage_domain>
</action>
```

### 6.56.3. export POST

Exports a disk to an export storage domain.

Table 6.166. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the export should be performed asynchronously.
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>storage_domain</b>	StorageDomain	In	The export storage domain where the disk will be exported to.

### 6.56.4. get GET

Retrieves the description of the disk.

Table 6.167. Parameters summary

Name	Type	Direction	Summary
<b>all_content</b>	Boolean	In	Indicates if all of the attributes of the disk should be included in the response.
<b>disk</b>	Disk	Out	The description of the disk.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

### 6.56.4.1. all\_content

Indicates if all of the attributes of the disk should be included in the response.

By default the following disk attributes are excluded:

- **vms**

For example, to retrieve the complete representation of disk '123':

```
GET /ovirt-engine/api/disks/123?all_content=true
```

### 6.56.4.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.56.5. move POST

Moves a disk to another storage domain.

For example, to move the disk with identifier **123** to a storage domain with identifier **456** send the following request:

```
POST /ovirt-engine/api/disks/123/move
```

With the following request body:

```
<action>
  <storage_domain id="456"/>
</action>
```

If the disk profile or the quota used currently by the disk aren't defined for the new storage domain, then they can be explicitly specified. If they aren't then the first available disk profile and the default quota are used.

For example, to explicitly use disk profile **987** and quota **753** send a request body like this:

```
<action>
  <storage_domain id="456"/>
  <disk_profile id="987"/>
  <quota id="753"/>
</action>
```

Table 6.168. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the move should be performed asynchronously.

Name	Type	Direction	Summary
<b>disk_profile</b>	DiskProfile	In	Disk profile for the disk in the new storage domain.
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>quota</b>	Quota	In	Quota for the disk in the new storage domain.
<b>storage_domain</b>	StorageDomain	In	The storage domain where the disk will be moved to.

### 6.56.5.1. disk\_profile

Disk profile for the disk in the new storage domain.

Disk profiles are defined for storage domains, so the old disk profile will not exist in the new storage domain. If this parameter is not used, the first disk profile from the new storage domain to which the user has permissions will be assigned to the disk.

### 6.56.5.2. quota

Quota for the disk in the new storage domain.

This optional parameter can be used to specify new quota for the disk, because the current quota may not be defined for the new storage domain. If this parameter is not used and the old quota is not defined for the new storage domain, the default (unlimited) quota will be assigned to the disk.

### 6.56.6. reduce POST

Reduces the size of the disk image.

Invokes *reduce* on the logical volume (i.e. this is only applicable for block storage domains). This is applicable for floating disks and disks attached to non-running virtual machines. There is no need to specify the size as the optimal size is calculated automatically.

**Table 6.169. Parameters summary**

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

### 6.56.7. refreshlun POST

Refreshes a direct LUN disk with up-to-date information from the storage.

Refreshing a direct LUN disk is useful when:

- The LUN was added using the API without the host parameter, and therefore does not contain any information from the storage (see [DisksService::add](#)).
- New information about the LUN is available on the storage and you want to update the LUN with it.

To refresh direct LUN disk **123** using host **456**, send the following request:

```
POST /ovirt-engine/api/disks/123/refreshlun
```

With the following request body:

```
<action>
  <host id='456'/>
</action>
```

Table 6.170. Parameters summary

Name	Type	Direction	Summary
<b>host</b>	<a href="#">Host</a>	In	The host that will be used to refresh the direct LUN disk.

### 6.56.8. remove DELETE

Removes a disk.

Table 6.171. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the remove should be performed asynchronously.

### 6.56.9. sparsify POST

Sparsify the disk.

Sparsification frees space in the disk image that is not used by its filesystem. As a result, the image will occupy less space on the storage.

Currently sparsification works only on disks without snapshots. Disks having derived disks are also not allowed.

### 6.56.10. update PUT

Updates the parameters of the specified disk.

This operation allows updating the following floating disk properties:

- For Image disks: **provisioned\_size**, **alias**, **description**, **wipe\_after\_delete**, **shareable**, **backup** and **disk\_profile**.

- For LUN disks: **alias**, **description** and **shareable**.
- Cinder integration has been replaced by Managed Block Storage.
- For Managed Block disks: **provisioned\_size**, **alias** and **description**.
- For VM attached disks, the **qcow\_version** can also be updated.

For example, a disk's update can be done by using the following request:

```
PUT /ovirt-engine/api/disks/123
```

With a request body like this:

```
<disk>
  <qcow_version>qcow2_v3</qcow_version>
  <alias>new-alias</alias>
  <description>new-desc</description>
</disk>
```

Since the backend operation is asynchronous, the disk element that is returned to the user might not be synced with the changed properties.

**Table 6.172. Parameters summary**

Name	Type	Direction	Summary
<b>disk</b>	Disk	In/Out	The update to apply to the disk.

## 6.57. DISKATTACHMENT

This service manages the attachment of a disk to a virtual machine.

**Table 6.173. Methods summary**

Name	Summary
<b>get</b>	Returns the details of the attachment, including the bootable flag and link to the disk.
<b>remove</b>	Removes the disk attachment.
<b>update</b>	Update the disk attachment and the disk properties within it.

### 6.57.1. get GET

Returns the details of the attachment, including the bootable flag and link to the disk.

An example of getting a disk attachment:

```
GET /ovirt-engine/api/vms/123/diskattachments/456
```

```
<disk_attachment href="/ovirt-engine/api/vms/123/diskattachments/456" id="456">
  <active>true</active>
  <bootable>true</bootable>
  <interface>virtio</interface>
  <disk href="/ovirt-engine/api/disks/456" id="456"/>
  <vm href="/ovirt-engine/api/vms/123" id="123"/>
</disk_attachment>
```

Table 6.174. Parameters summary

Name	Type	Direction	Summary
<b>attachment</b>	DiskAttachm ent	Out	
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

### 6.57.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.57.2. remove DELETE

Removes the disk attachment.

This will only detach the disk from the virtual machine, but won't remove it from the system, unless the **detach\_only** parameter is **false**.

An example of removing a disk attachment:

```
DELETE /ovirt-engine/api/vms/123/diskattachments/456?detach_only=true
```

Table 6.175. Parameters summary

Name	Type	Direction	Summary
<b>detach_onl y</b>	Boolean	In	Indicates if the disk should only be detached from the virtual machine, but not removed from the system.

### 6.57.2.1. detach\_only

Indicates if the disk should only be detached from the virtual machine, but not removed from the system. The default value is **true**, which won't remove the disk from the system.

### 6.57.3. update PUT

Update the disk attachment and the disk properties within it.

```
PUT /vms/{vm:id}/disksattachments/{attachment:id}
```

```

<disk_attachment>
  <bootable>true</bootable>
  <interface>ide</interface>
  <active>true</active>
  <disk>
    <name>mydisk</name>
    <provisioned_size>1024</provisioned_size>
    ...
  </disk>
</disk_attachment>

```

Table 6.176. Parameters summary

Name	Type	Direction	Summary
<b>disk_attachment</b>	<a href="#">DiskAttachment</a>	In/Out	

## 6.58. DISKATTACHMENTS

This service manages the set of disks attached to a virtual machine. Each attached disk is represented by a [DiskAttachment](#), containing the bootable flag, the disk interface and the reference to the disk.

Table 6.177. Methods summary

Name	Summary
<b>add</b>	Adds a new disk attachment to the virtual machine.
<b>list</b>	List the disk that are attached to the virtual machine.

### 6.58.1. add POST

Adds a new disk attachment to the virtual machine. The **attachment** parameter can contain just a reference, if the disk already exists:

```

<disk_attachment>
  <bootable>true</bootable>
  <pass_discard>true</pass_discard>
  <interface>ide</interface>
  <active>true</active>
  <disk id="123"/>
</disk_attachment>

```

Or it can contain the complete representation of the disk, if the disk doesn't exist yet:

```

<disk_attachment>
  <bootable>true</bootable>
  <pass_discard>true</pass_discard>
  <interface>ide</interface>
  <active>true</active>

```

```

<disk>
  <name>mydisk</name>
  <provisioned_size>1024</provisioned_size>
  ...
</disk>
</disk_attachment>

```

In this case the disk will be created and then attached to the virtual machine.

In both cases, use the following URL for a virtual machine with an id **345**:

```
POST /ovirt-engine/api/vms/345/diskattachments
```



### IMPORTANT

The server accepts requests that do not contain the **active** attribute, but the effect is undefined. In some cases the disk will be automatically activated and in other cases it won't. To avoid issues it is strongly recommended to always include the **active** attribute with the desired value.

Table 6.178. Parameters summary

Name	Type	Direction	Summary
<b>attachment</b>	<code>DiskAttachment</code>	In/Out	The disk attachment to add to the virtual machine.

### 6.58.2. list GET

List the disk that are attached to the virtual machine.

The order of the returned list of disks attachments isn't guaranteed.

Table 6.179. Parameters summary

Name	Type	Direction	Summary
<b>attachments</b>	<code>DiskAttachment[]</code>	Out	A list of disk attachments that are attached to the virtual machine.
<b>follow</b>	<code>String</code>	In	Indicates which inner links should be <i>followed</i> .

#### 6.58.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.59. DISKPROFILE

Table 6.180. Methods summary

Name	Summary
<b>get</b>	
<b>remove</b>	
<b>update</b>	Update the specified disk profile in the system.

### 6.59.1. get GET

Table 6.181. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>profile</b>	<a href="#">DiskProfile</a>	Out	

#### 6.59.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.59.2. remove DELETE

Table 6.182. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the remove should be performed asynchronously.

### 6.59.3. update PUT

Update the specified disk profile in the system.

Table 6.183. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the update should be performed asynchronously.
<b>profile</b>	<a href="#">DiskProfile</a>	In/Out	

## 6.60. DISKPROFILES

Table 6.184. Methods summary

Name	Summary
<b>add</b>	Add a new disk profile to the system.
<b>list</b>	Returns the list of disk profiles of the system.

### 6.60.1. add POST

Add a new disk profile to the system.

Table 6.185. Parameters summary

Name	Type	Direction	Summary
<b>profile</b>	<a href="#">DiskProfile</a>	In/Out	

### 6.60.2. list GET

Returns the list of disk profiles of the system.

The order of the returned list of disk profiles isn't guaranteed.

Table 6.186. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of profiles to return.
<b>profile</b>	<a href="#">DiskProfile[]</a>	Out	

#### 6.60.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.60.2.2. max

Sets the maximum number of profiles to return. If not specified all the profiles are returned.

## 6.61. DISKSNAPSHOT

Table 6.187. Methods summary

Name	Summary
<b>get</b>	
<b>remove</b>	

### 6.61.1. get GET

Table 6.188. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>snapshot</b>	<a href="#">DiskSnapshot</a>	Out	

#### 6.61.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.61.2. remove DELETE

Table 6.189. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the remove should be performed asynchronously.

## 6.62. DISKSNAPSHOTS

Manages the collection of disk snapshots available in an storage domain.

Table 6.190. Methods summary

Name	Summary
<b>list</b>	Returns the list of disk snapshots of the storage domain.

### 6.62.1. list GET

Returns the list of disk snapshots of the storage domain.

The order of the returned list of disk snapshots isn't guaranteed.

Table 6.191. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>include_active</b>	Boolean	In	If true return also active snapshots.
<b>include_template</b>	Boolean	In	If true return also template snapshots.
<b>max</b>	Integer	In	Sets the maximum number of snapshots to return.
<b>snapshots</b>	DiskSnapshot[]	Out	

#### 6.62.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.62.1.2. include\_active

If true return also active snapshots. If not specified active snapshots are not returned.

#### 6.62.1.3. include\_template

If true return also template snapshots. If not specified template snapshots are not returned.

#### 6.62.1.4. max

Sets the maximum number of snapshots to return. If not specified all the snapshots are returned.

## 6.63. DISKS

Manages the collection of disks available in the system.

Table 6.192. Methods summary

Name	Summary
<b>add</b>	Adds a new floating disk.
<b>list</b>	Get list of disks.

#### 6.63.1. add POST

Adds a new floating disk.

There are three types of disks that can be added – disk image, direct LUN and Managed Block disk. [Cinder](#) integration has been replaced by Managed Block Storage.

### Adding a new image disk:

When creating a new floating image [Disk](#), the API requires the **storage\_domain**, **provisioned\_size** and **format** attributes.

Note that block storage domains (i.e. storage domains with the [storage type](#) of iSCSI or FCP) do not support the combination of the raw **format** with **sparse=true**, so **sparse=false** must be stated explicitly.

To create a new floating image disk with specified **provisioned\_size**, **format** and **name** on a storage domain with an id **123** and enabled for incremental backup, send a request as follows:

```
POST /ovirt-engine/api/disks
```

With a request body as follows:

```
<disk>
  <storage_domains>
    <storage_domain id="123"/>
  </storage_domains>
  <name>mydisk</name>
  <provisioned_size>1048576</provisioned_size>
  <format>cow</format>
  <backup>incremental</backup>
</disk>
```

### Adding a new direct LUN disk:

When adding a new floating direct LUN via the API, there are two flavors that can be used:

1. With a **host** element - in this case, the host is used for sanity checks (e.g., that the LUN is visible) and to retrieve basic information about the LUN (e.g., size and serial).
2. Without a **host** element - in this case, the operation is a database-only operation, and the storage is never accessed.

To create a new floating direct LUN disk with a **host** element with an id **123**, specified **alias**, **type** and **logical\_unit** with an id **456** (that has the attributes **address**, **port** and **target**), send a request as follows:

```
POST /ovirt-engine/api/disks
```

With a request body as follows:

```
<disk>
  <alias>mylun</alias>
  <lun_storage>
    <host id="123"/>
    <type>iscsi</type>
  </lun_storage>
  <logical_units>
    <logical_unit id="456">
      <address>10.35.10.20</address>
      <port>3260</port>
      <target>iqn.2017-01.com.myhost:444</target>
    </logical_unit>
  </logical_units>
</disk>
```

```

    </logical_unit>
  </logical_units>
</lun_storage>
</disk>

```

To create a new floating direct LUN disk without using a host, remove the **host** element.

### Adding a new Cinder disk:

Cinder integration has been replaced by Managed Block Storage.

### Adding a floating disks in order to upload disk snapshots:

Since version 4.2 of the engine it is possible to upload disks with snapshots. This request should be used to create the base image of the images chain (The consecutive disk snapshots (images), should be created using **disk-attachments** element when creating a snapshot).

The disk has to be created with the same disk identifier and image identifier of the uploaded image. I.e. the identifiers should be saved as part of the backup process. The image identifier can be also fetched using the **qemu-img info** command. For example, if the disk image is stored into a file named **b7a4c6c5-443b-47c5-967f-6abc79675e8b/myimage.img**:

```

$ qemu-img info b7a4c6c5-443b-47c5-967f-6abc79675e8b/myimage.img
image: b548366b-fb51-4b41-97be-733c887fe305
file format: qcow2
virtual size: 1.0G (1073741824 bytes)
disk size: 196K
cluster_size: 65536
backing file: ad58716a-1fe9-481f-815e-664de1df04eb
backing file format: raw

```

To create a disk with with the disk identifier and image identifier obtained with the **qemu-img info** command shown above, send a request like this:

```
POST /ovirt-engine/api/disks
```

With a request body as follows:

```

<disk id="b7a4c6c5-443b-47c5-967f-6abc79675e8b">
  <image_id>b548366b-fb51-4b41-97be-733c887fe305</image_id>
  <storage_domains>
    <storage_domain id="123"/>
  </storage_domains>
  <name>mydisk</name>
  <provisioned_size>1048576</provisioned_size>
  <format>cow</format>
</disk>

```

Table 6.193. Parameters summary

Name	Type	Direction	Summary
<b>disk</b>	Disk	In/Out	The disk.

## 6.63.2. list GET

Get list of disks.

```
GET /ovirt-engine/api/disks
```

You will get a XML response which will look like this one:

```
<disks>
  <disk id="123">
    <actions>...</actions>
    <name>MyDisk</name>
    <description>MyDisk description</description>
    <link href="/ovirt-engine/api/disks/123/permissions" rel="permissions"/>
    <link href="/ovirt-engine/api/disks/123/statistics" rel="statistics"/>
    <actual_size>5345845248</actual_size>
    <alias>MyDisk alias</alias>
    ...
    <status>ok</status>
    <storage_type>image</storage_type>
    <wipe_after_delete>>false</wipe_after_delete>
    <disk_profile id="123"/>
    <quota id="123"/>
    <storage_domains>...</storage_domains>
  </disk>
  ...
</disks>
```

The order of the returned list of disks is guaranteed only if the **sortby** clause is included in the **search** parameter.

Table 6.194. Parameters summary

Name	Type	Direction	Summary
<b>case_sensitive</b>	Boolean	In	Indicates if the search performed using the <b>search</b> parameter should be performed taking case into account.
<b>disks</b>	Disk[]	Out	List of retrieved disks.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of disks to return.
<b>search</b>	String	In	A query string used to restrict the returned disks.

### 6.63.2.1. case\_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

### 6.63.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.63.2.3. max

Sets the maximum number of disks to return. If not specified all the disks are returned.

## 6.64. DOMAIN

A service to view details of an authentication domain in the system.

Table 6.195. Methods summary

Name	Summary
<b>get</b>	Gets the authentication domain information.

### 6.64.1. get GET

Gets the authentication domain information.

Usage:

```
GET /ovirt-engine/api/domains/5678
```

Will return the domain information:

```
<domain href="/ovirt-engine/api/domains/5678" id="5678">
  <name>internal-authz</name>
  <link href="/ovirt-engine/api/domains/5678/users" rel="users"/>
  <link href="/ovirt-engine/api/domains/5678/groups" rel="groups"/>
  <link href="/ovirt-engine/api/domains/5678/users?search={query}" rel="users/search"/>
  <link href="/ovirt-engine/api/domains/5678/groups?search={query}" rel="groups/search"/>
</domain>
```

Table 6.196. Parameters summary

Name	Type	Direction	Summary
<b>domain</b>	<a href="#">Domain</a>	Out	The authentication domain.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

### 6.64.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.65. DOMAINGROUP

Table 6.197. Methods summary

Name	Summary
<b>get</b>	

### 6.65.1. get GET

Table 6.198. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>get</b>	<a href="#">Group</a>	Out	

#### 6.65.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.66. DOMAINGROUPS

Table 6.199. Methods summary

Name	Summary
<b>list</b>	Returns the list of groups.

### 6.66.1. list GET

Returns the list of groups.

The order of the returned list of groups isn't guaranteed.

Table 6.200. Parameters summary

Name	Type	Direction	Summary
<b>case_sensitive</b>	<a href="#">Boolean</a>	In	Indicates if the search performed using the <b>search</b> parameter should be performed taking case into account.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>groups</b>	<a href="#">Group[]</a>	Out	

Name	Type	Direction	Summary
<b>max</b>	Integer	In	Sets the maximum number of groups to return.
<b>search</b>	String	In	A query string used to restrict the returned groups.

### 6.66.1.1. case\_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

### 6.66.1.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.66.1.3. max

Sets the maximum number of groups to return. If not specified all the groups are returned.

## 6.67. DOMAINUSER

A service to view a domain user in the system.

Table 6.201. Methods summary

Name	Summary
<b>get</b>	Gets the domain user information.

### 6.67.1. get GET

Gets the domain user information.

Usage:

```
GET /ovirt-engine/api/domains/5678/users/1234
```

Will return the domain user information:

```
<user href="/ovirt-engine/api/users/1234" id="1234">
  <name>admin</name>
  <namespace>*</namespace>
  <principal>admin</principal>
  <user_name>admin@internal-authz</user_name>
  <domain href="/ovirt-engine/api/domains/5678" id="5678">
    <name>internal-authz</name>
```

```

</domain>
<groups/>
</user>

```

Table 6.202. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>user</b>	User	Out	The domain user.

### 6.67.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.68. DOMAINUSERGROUPS

A service that shows a user's group membership in the AAA extension.

Table 6.203. Methods summary

Name	Summary
<b>list</b>	Returns the list of groups that the user is a member of.

### 6.68.1. list GET

Returns the list of groups that the user is a member of.

Table 6.204. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>groups</b>	Group[]	Out	The list of groups that the user is a member of.

### 6.68.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.69. DOMAINUSERS

A service to list all domain users in the system.

Table 6.205. Methods summary

Name	Summary
<b>list</b>	List all the users in the domain.

### 6.69.1. list GET

List all the users in the domain.

Usage:

```
GET /ovirt-engine/api/domains/5678/users
```

Will return the list of users in the domain:

```
<users>
  <user href="/ovirt-engine/api/domains/5678/users/1234" id="1234">
    <name>admin</name>
    <namespace>*</namespace>
    <principal>admin</principal>
    <user_name>admin@internal-authz</user_name>
    <domain href="/ovirt-engine/api/domains/5678" id="5678">
      <name>internal-authz</name>
    </domain>
    <groups/>
  </user>
</users>
```

The order of the returned list of users isn't guaranteed.

Table 6.206. Parameters summary

Name	Type	Direction	Summary
<b>case_sensitive</b>	Boolean	In	Indicates if the search performed using the <b>search</b> parameter should be performed taking case into account.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of users to return.
<b>search</b>	String	In	A query string used to restrict the returned users.
<b>users</b>	User[]	Out	The list of users in the domain.

#### 6.69.1.1. case\_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

### 6.69.1.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.69.1.3. max

Sets the maximum number of users to return. If not specified all the users are returned.

## 6.70. DOMAINS

A service to list all authentication domains in the system.

Table 6.207. Methods summary

Name	Summary
<b>list</b>	List all the authentication domains in the system.

### 6.70.1. list GET

List all the authentication domains in the system.

Usage:

```
GET /ovirt-engine/api/domains
```

Will return the list of domains:

```
<domains>
  <domain href="/ovirt-engine/api/domains/5678" id="5678">
    <name>internal-authz</name>
    <link href="/ovirt-engine/api/domains/5678/users" rel="users"/>
    <link href="/ovirt-engine/api/domains/5678/groups" rel="groups"/>
    <link href="/ovirt-engine/api/domains/5678/users?search={query}" rel="users/search"/>
    <link href="/ovirt-engine/api/domains/5678/groups?search={query}" rel="groups/search"/>
  </domain>
</domains>
```

The order of the returned list of domains isn't guaranteed.

Table 6.208. Parameters summary

Name	Type	Direction	Summary
<b>domains</b>	<a href="#">Domain[]</a>	Out	The list of domains.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of domains to return.

### 6.70.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.70.1.2. max

Sets the maximum number of domains to return. If not specified all the domains are returned.

## 6.71. ENGINEKATELLOERRATA

A service to manage Katello errata assigned to the engine. The information is retrieved from Katello.

Table 6.209. Methods summary

Name	Summary
<b>list</b>	Retrieves the representation of the Katello errata.

### 6.71.1. list GET

Retrieves the representation of the Katello errata.

```
GET /ovirt-engine/api/katelloerrata
```

You will receive response in XML like this one:

```
<katello_errata>
  <katello_erratum href="/ovirt-engine/api/katelloerrata/123" id="123">
    <name>RHBA-2013:XYZ</name>
    <description>The description of the erratum</description>
    <title>some bug fix update</title>
    <type>bugfix</type>
    <issued>2013-11-20T02:00:00.000+02:00</issued>
    <solution>Few guidelines regarding the solution</solution>
    <summary>Updated packages that fix one bug are now available for XYZ</summary>
    <packages>
      <package>
        <name>libipa_hbac-1.9.2-82.11.el6_4.i686</name>
      </package>
      ...
    </packages>
  </katello_erratum>
  ...
</katello_errata>
```

The order of the returned list of erratum isn't guaranteed.

Table 6.210. Parameters summary

Name	Type	Direction	Summary
<b>errata</b>	<a href="#">KatelloErratum[]</a>	Out	A representation of Katello errata.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of errata to return.

#### 6.71.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.71.1.2. max

Sets the maximum number of errata to return. If not specified all the errata are returned.

## 6.72. EVENT

A service to manage an event in the system.

Table 6.211. Methods summary

Name	Summary
<b>get</b>	Get an event.
<b>remove</b>	Removes an event from internal audit log.

### 6.72.1. get GET

Get an event.

An example of getting an event:

```
GET /ovirt-engine/api/events/123
```

```
<event href="/ovirt-engine/api/events/123" id="123">
  <description>Host example.com was added by admin@internal-authz.</description>
  <code>42</code>
  <correlation_id>135</correlation_id>
  <custom_id>-1</custom_id>
  <flood_rate>30</flood_rate>
  <origin>oVirt</origin>
  <severity>normal</severity>
  <time>2016-12-11T11:13:44.654+02:00</time>
  <cluster href="/ovirt-engine/api/clusters/456" id="456"/>
```

```
<host href="/ovirt-engine/api/hosts/789" id="789"/>
<user href="/ovirt-engine/api/users/987" id="987"/>
</event>
```

Note that the number of fields changes according to the information that resides on the event. For example, for storage domain related events you will get the storage domain reference, as well as the reference for the data center this storage domain resides in.

Table 6.212. Parameters summary

Name	Type	Direction	Summary
<b>event</b>	Event	Out	
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

### 6.72.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.72.2. remove DELETE

Removes an event from internal audit log.

An event can be removed by sending following request

```
DELETE /ovirt-engine/api/events/123
```

Table 6.213. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

## 6.73. EVENTSUBSCRIPTION

A service to manage a specific event-subscription in the system.

Table 6.214. Methods summary

Name	Summary
<b>get</b>	Gets the information about the event-subscription.
<b>remove</b>	Removes the event-subscription from the system.

### 6.73.1. get GET

Gets the information about the event-subscription.

For example to retrieve the information about the subscription of user '123' to the event 'vm\_console\_detected':

```
GET /ovirt-engine/api/users/123/vm_console_detected
```

```
<event-subscription href="/ovirt-engine/api/users/123/event-subscriptions/vm_console_detected">
  <event>vm_console_detected</event>
  <notification_method>smtp</notification_method>
  <user href="/ovirt-engine/api/users/123" id="123"/>
  <address>a@b.com</address>
</event-subscription>
```

Table 6.215. Parameters summary

Name	Type	Direction	Summary
<b>event_subscription</b>	<a href="#">EventSubscription</a>	Out	The event-subscription.

### 6.73.2. remove DELETE

Removes the event-subscription from the system.

For example to remove user 123's subscription to **vm\_console\_detected** event:

```
DELETE /ovirt-engine/api/users/123/vm_console_detected
```

Table 6.216. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the remove should be performed asynchronously.

## 6.74. EVENTSUBSCRIPTIONS

Represents a service to manage collection of event-subscription of a user.

Table 6.217. Methods summary

Name	Summary
<b>add</b>	Add a new event-subscription to the system.
<b>list</b>	List the event-subscriptions for the provided user.

### 6.74.1. add POST

Add a new event-subscription to the system.

An event-subscription is always added in the context of a user. For example, to add new event-subscription for **host\_high\_cpu\_use** for user **123**, and have the notification sent to the e-mail address: **a@b.com**, send a request like this:

```
POST /ovirt-engine/api/users/123/eventsubscriptions
```

With a request body like this:

```
<event_subscription>
  <event>host_high_cpu_use</event>
  <address>a@b.com</address>
</event_subscription>
```

The event name will become the ID of the new event-subscription entity: GET ...  
/api/users/123/eventsubscriptions/host\_high\_cpu\_use

Note that no user id is provided in the request body. This is because the user-id (in this case 123) is already known to the API from the context. Note also that event-subscription entity contains notification-method field, but it is not provided either in the request body. This is because currently it's always set to SMTP as SNMP notifications are still unsupported by the API layer.

Table 6.218. Parameters summary

Name	Type	Direction	Summary
<b>event_subscription</b>	EventSubscription	In/Out	The added event-subscription.

### 6.74.2. list GET

List the event-subscriptions for the provided user.

For example to list event-subscriptions for user **123**:

```
GET /ovirt-engine/api/users/123/event-subscriptions
```

```
<event-subscriptions>
  <event-subscription href="/ovirt-engine/api/users/123/event-subscriptions/host_install_failed">
    <event>host_install_failed</event>
    <notification_method>smtp</notification_method>
    <user href="/ovirt-engine/api/users/123" id="123"/>
    <address>a@b.com</address>
  </event-subscription>
  <event-subscription href="/ovirt-engine/api/users/123/event-subscriptions/vm_paused">
    <event>vm_paused</event>
    <notification_method>smtp</notification_method>
    <user href="/ovirt-engine/api/users/123" id="123"/>
    <address>a@b.com</address>
  </event-subscription>
</event-subscriptions>
```

Table 6.219. Parameters summary

Name	Type	Direction	Summary
<b>event_subscriptions</b>	EventSubscription[]	Out	List of the event-subscriptions for the specified user
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of event-subscriptions to return.

#### 6.74.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.74.2.2. max

Sets the maximum number of event-subscriptions to return. If not specified all the event-subscriptions are returned.

## 6.75. EVENTS

A service to manage events in the system.

Table 6.220. Methods summary

Name	Summary
<b>add</b>	Adds an external event to the internal audit log.
<b>list</b>	Get list of events.
<b>undelele</b>	

#### 6.75.1. add POST

Adds an external event to the internal audit log.

This is intended for integration with external systems that detect or produce events relevant for the administrator of the system. For example, an external monitoring tool may be able to detect that a file system is full inside the guest operating system of a virtual machine. This event can be added to the internal audit log sending a request like this:

```
POST /ovirt-engine/api/events
<event>
  <description>File system /home is full</description>
  <severity>alert</severity>
```

```
<origin>mymonitor</origin>
<custom_id>1467879754</custom_id>
</event>
```

Events can also be linked to specific objects. For example, the above event could be linked to the specific virtual machine where it happened, using the **vm** link:

```
POST /ovirt-engine/api/events
<event>
  <description>File system /home is full</description>
  <severity>alert</severity>
  <origin>mymonitor</origin>
  <custom_id>1467879754</custom_id>
  <vm id="aae98225-5b73-490d-a252-899209af17e9"/>
</event>
```



## NOTE

When using links, like the **vm** in the previous example, only the **id** attribute is accepted. The **name** attribute, if provided, is simply ignored.

Table 6.221. Parameters summary

Name	Type	Direction	Summary
<b>event</b>	Event	In/Out	

## 6.75.2. list GET

Get list of events.

```
GET /ovirt-engine/api/events
```

To the above request we get following response:

```
<events>
  <event href="/ovirt-engine/api/events/2" id="2">
    <description>User admin@internal-authz logged out.</description>
    <code>31</code>
    <correlation_id>1e892ea9</correlation_id>
    <custom_id>-1</custom_id>
    <flood_rate>30</flood_rate>
    <origin>oVirt</origin>
    <severity>normal</severity>
    <time>2016-09-14T12:14:34.541+02:00</time>
    <user href="/ovirt-engine/api/users/57d91d48-00da-0137-0138-000000000244" id="57d91d48-00da-0137-0138-000000000244"/>
  </event>
  <event href="/ovirt-engine/api/events/1" id="1">
    <description>User admin logged in.</description>
    <code>30</code>
    <correlation_id>1fbd81f4</correlation_id>
```

```

<custom_id>-1</custom_id>
<flood_rate>30</flood_rate>
<origin>oVirt</origin>
<severity>normal</severity>
<time>2016-09-14T11:54:35.229+02:00</time>
<user href="/ovirt-engine/api/users/57d91d48-00da-0137-0138-000000000244" id="57d91d48-00da-0137-0138-000000000244"/>
</event>
</events>

```

The following events occur:

- id="1" - The API logs in the admin user account.
- id="2" - The API logs out of the admin user account.

The order of the returned list of events is always guaranteed. If the **sortby** clause is included in the **search** parameter, then the events will be ordered according to that clause. If the **sortby** clause isn't included, then the events will be sorted by the numeric value of the **id** attribute, starting with the highest value. This, combined with the **max** parameter, simplifies obtaining the most recent event:

```
GET /ovirt-engine/api/events?max=1
```

Table 6.222. Parameters summary

Name	Type	Direction	Summary
<b>case_sensitive</b>	Boolean	In	Indicates if the search performed using the <b>search</b> parameter should be performed taking case into account.
<b>events</b>	Event[]	Out	
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>from</b>	Integer	In	Indicates the event index after which events should be returned.
<b>max</b>	Integer	In	Sets the maximum number of events to return.
<b>search</b>	String	In	The events service provides search queries similar to other resource services.

### 6.75.2.1. case\_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

### 6.75.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.75.2.3. from

Indicates the event index after which events should be returned. The indexes of events are strictly increasing, so when this parameter is used only the events with greater indexes will be returned. For example, the following request will return only the events with indexes greater than **123**:

```
GET /ovirt-engine/api/events?from=123
```

This parameter is optional, and if not specified then the first event returned will be most recently generated.

### 6.75.2.4. max

Sets the maximum number of events to return. If not specified all the events are returned.

### 6.75.2.5. search

The events service provides search queries similar to other resource services.

We can search by providing specific severity.

```
GET /ovirt-engine/api/events?search=severity%3Dnormal
```

To the above request we get a list of events which severity is equal to **normal**:

```
<events>
  <event href="/ovirt-engine/api/events/2" id="2">
    <description>User admin@internal-authz logged out.</description>
    <code>31</code>
    <correlation_id>1fbd81f4</correlation_id>
    <custom_id>-1</custom_id>
    <flood_rate>30</flood_rate>
    <origin>oVirt</origin>
    <severity>normal</severity>
    <time>2016-09-14T11:54:35.229+02:00</time>
    <user href="/ovirt-engine/api/users/57d91d48-00da-0137-0138-000000000244" id="57d91d48-00da-0137-0138-000000000244"/>
  </event>
  <event href="/ovirt-engine/api/events/1" id="1">
    <description>Affinity Rules Enforcement Manager started.</description>
    <code>10780</code>
    <custom_id>-1</custom_id>
    <flood_rate>30</flood_rate>
    <origin>oVirt</origin>
    <severity>normal</severity>
    <time>2016-09-14T11:52:18.861+02:00</time>
  </event>
</events>
```

A virtualization environment generates a large amount of events after a period of time. However, the API only displays a default number of events for one search query. To display more than the default, the

API separates results into pages with the page command in a search query. The following search query tells the API to paginate results using a page value in combination with the sortby clause:

```
sortby time asc page 1
```

Below example paginates event resources. The URL-encoded request is:

```
GET /ovirt-engine/api/events?search=sortby%20time%20asc%20page%201
```

Increase the page value to view the next page of results.

```
GET /ovirt-engine/api/events?search=sortby%20time%20asc%20page%202
```

### 6.75.3. undelete POST

Table 6.223. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the un-delete should be performed asynchronously.

## 6.76. EXTERNALCOMPUTERESOURCE

Manages a single external compute resource.

Compute resource is a term of host external provider. The external provider also needs to know to where the provisioned host needs to register. The login details of the engine are saved as a compute resource in the external provider side.

Table 6.224. Methods summary

Name	Summary
<b>get</b>	Retrieves external compute resource details.

### 6.76.1. get GET

Retrieves external compute resource details.

For example, to get the details of compute resource **234** of provider **123**, send a request like this:

```
GET /ovirt-engine/api/externalhostproviders/123/computeresources/234
```

It will return a response like this:

```
<external_compute_resource href="/ovirt-
engine/api/externalhostproviders/123/computeresources/234" id="234">
  <name>hostname</name>
  <provider>oVirt</provider>
```

```

<url>https://hostname/api</url>
<user>admin@internal</user>
<external_host_provider href="/ovirt-engine/api/externalhostproviders/123" id="123"/>
</external_compute_resource>

```

Table 6.225. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>resource</b>	ExternalComputeResource	Out	External compute resource information

### 6.76.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.77. EXTERNALCOMPUTERESOURCES

Manages a collection of external compute resources.

Compute resource is a term of host external provider. The external provider also needs to know to where the provisioned host needs to register. The login details of the engine is saved as a compute resource in the external provider side.

Table 6.226. Methods summary

Name	Summary
<b>list</b>	Retrieves a list of external compute resources.

### 6.77.1. list GET

Retrieves a list of external compute resources.

For example, to retrieve the compute resources of external host provider **123**, send a request like this:

```
GET /ovirt-engine/api/externalhostproviders/123/computeresources
```

It will return a response like this:

```

<external_compute_resources>
  <external_compute_resource href="/ovirt-
engine/api/externalhostproviders/123/computeresources/234" id="234">
    <name>hostname</name>
    <provider>oVirt</provider>
    <url>https://address/api</url>
    <user>admin@internal</user>

```

```

<external_host_provider href="/ovirt-engine/api/externalhostproviders/123" id="123"/>
</external_compute_resource>
...
</external_compute_resources>

```

The order of the returned list of compute resources isn't guaranteed.

Table 6.227. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of resources to return.
<b>resources</b>	ExternalComputeResource[]	Out	List of external computer resources.

#### 6.77.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.77.1.2. max

Sets the maximum number of resources to return. If not specified all the resources are returned.

## 6.78. EXTERNALDISCOVEREDHOST

This service manages a single discovered host.

Table 6.228. Methods summary

Name	Summary
<b>get</b>	Get discovered host info.

### 6.78.1. get GET

Get discovered host info.

Retrieves information about an host that is managed in external provider management system, such as Foreman. The information includes hostname, address, subnet, base image and more.

For example, to get the details of host **234** from provider **123**, send a request like this:

```
GET /ovirt-engine/api/externalhostproviders/123/discoveredhosts/234
```

The result will be like this:

```
<external_discovered_host href="/ovirt-engine/api/externalhostproviders/123/discoveredhosts/234"
id="234">
  <name>mac001a4ad04040</name>
  <ip>10.34.67.43</ip>
  <last_report>2017-04-24 11:05:41 UTC</last_report>
  <mac>00:1a:4a:d0:40:40</mac>
  <subnet_name>sat0</subnet_name>
  <external_host_provider href="/ovirt-engine/api/externalhostproviders/123" id="123"/>
</external_discovered_host>
```

Table 6.229. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>host</b>	ExternalDisc overedHost	Out	Host's hardware and config information.

### 6.78.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.79. EXTERNALDISCOVEREDHOSTS

This service manages external discovered hosts.

Table 6.230. Methods summary

Name	Summary
<b>list</b>	Get list of discovered hosts' information.

### 6.79.1. list GET

Get list of discovered hosts' information.

Discovered hosts are fetched from third-party providers such as Foreman.

To list all discovered hosts for provider **123** send the following:

```
GET /ovirt-engine/api/externalhostproviders/123/discoveredhost
```

```
<external_discovered_hosts>
  <external_discovered_host href="/ovirt-engine/api/externalhostproviders/123/discoveredhosts/456"
id="456">
    <name>mac001a4ad04031</name>
    <ip>10.34.67.42</ip>
    <last_report>2017-04-24 11:05:41 UTC</last_report>
    <mac>00:1a:4a:d0:40:31</mac>
```

```

<subnet_name>sat0</subnet_name>
<external_host_provider href="/ovirt-engine/api/externalhostproviders/123" id="123"/>
</external_discovered_host>
<external_discovered_host href="/ovirt-engine/api/externalhostproviders/123/discoveredhosts/789"
id="789">
  <name>mac001a4ad04040</name>
  <ip>10.34.67.43</ip>
  <last_report>2017-04-24 11:05:41 UTC</last_report>
  <mac>00:1a:4a:d0:40:40</mac>
  <subnet_name>sat0</subnet_name>
  <external_host_provider href="/ovirt-engine/api/externalhostproviders/123" id="123"/>
</external_discovered_host>
...
</external_discovered_hosts>

```

The order of the returned list of hosts isn't guaranteed.

Table 6.231. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>hosts</b>	ExternalDisc overedHost[ ]	Out	List of discovered hosts
<b>max</b>	Integer	In	Sets the maximum number of hosts to return.

#### 6.79.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.79.1.2. max

Sets the maximum number of hosts to return. If not specified all the hosts are returned.

## 6.80. EXTERNALHOST

Table 6.232. Methods summary

Name	Summary
<b>get</b>	

### 6.80.1. get GET

Table 6.233. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>host</b>	ExternalHost	Out	

### 6.80.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.81. EXTERNALHOSTGROUP

This service manages a single host group information.

Host group is a term of host provider - the host group includes provision details that are applied to new discovered host. Information such as subnet, operating system, domain, etc.

Table 6.234. Methods summary

Name	Summary
<b>get</b>	Get host group information.

### 6.81.1. get GET

Get host group information.

For example, to get the details of hostgroup **234** of provider **123**, send a request like this:

```
GET /ovirt-engine/api/externalhostproviders/123/hostgroups/234
```

It will return a response like this:

```
<external_host_group href="/ovirt-engine/api/externalhostproviders/123/hostgroups/234" id="234">
  <name>rhel7</name>
  <architecture_name>x86_64</architecture_name>
  <domain_name>s.com</domain_name>
  <operating_system_name>RedHat 7.3</operating_system_name>
  <subnet_name>sat0</subnet_name>
  <external_host_provider href="/ovirt-engine/api/externalhostproviders/123" id="123"/>
</external_host_group>
```

Table 6.235. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
<b>group</b>	<a href="#">ExternalHost Group</a>	Out	Host group information.

### 6.81.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.82. EXTERNALHOSTGROUPS

This service manages hostgroups.

Table 6.236. Methods summary

Name	Summary
<b>list</b>	Get host groups list from external host provider.

### 6.82.1. list GET

Get host groups list from external host provider.

Host group is a term of host providers - the host group includes provision details. This API returns all possible hostgroups exposed by the external provider.

For example, to get the details of all host groups of provider **123**, send a request like this:

```
GET /ovirt-engine/api/externalhostproviders/123/hostgroups
```

The response will be like this:

```
<external_host_groups>
  <external_host_group href="/ovirt-engine/api/externalhostproviders/123/hostgroups/234" id="234">
    <name>rhel7</name>
    <architecture_name>x86_64</architecture_name>
    <domain_name>example.com</domain_name>
    <operating_system_name>RedHat 7.3</operating_system_name>
    <subnet_name>sat0</subnet_name>
    <external_host_provider href="/ovirt-engine/api/externalhostproviders/123" id="123"/>
  </external_host_group>
  ...
</external_host_groups>
```

The order of the returned list of host groups isn't guaranteed.

Table 6.237. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>groups</b>	ExternalHost Group[]	Out	List of all hostgroups available for external host provider
<b>max</b>	Integer	In	Sets the maximum number of groups to return.

### 6.82.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.82.1.2. max

Sets the maximum number of groups to return. If not specified all the groups are returned.

## 6.83. EXTERNALHOSTPROVIDER

Represents an external host provider, such as Foreman or Satellite.

See [Foreman documentation](#) for details. See [Satellite documentation](#) for details.

Table 6.238. Methods summary

Name	Summary
<b>get</b>	Get external host provider information  Host provider, Foreman or Satellite, can be set as an external provider in ovirt.
<b>importcertificates</b>	Import the SSL certificates of the external host provider.
<b>remove</b>	
<b>testconnectivity</b>	In order to test connectivity for external provider we need to run following request where 123 is an id of a provider.
<b>update</b>	Update the specified external host provider in the system.

### 6.83.1. get GET

Get external host provider information

Host provider, Foreman or Satellite, can be set as an external provider in ovirt. To see details about specific host providers attached to ovirt use this API.

For example, to get the details of host provider **123**, send a request like this:

```
GET /ovirt-engine/api/externalhostproviders/123
```

The response will be like this:

```
<external_host_provider href="/ovirt-engine/api/externalhostproviders/123" id="123">
  <name>mysatellite</name>
  <requires_authentication>true</requires_authentication>
  <url>https://mysatellite.example.com</url>
  <username>admin</username>
</external_host_provider>
```

Table 6.239. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>provider</b>	ExternalHost Provider	Out	

#### 6.83.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.83.2. importcertificates POST

Import the SSL certificates of the external host provider.

Table 6.240. Parameters summary

Name	Type	Direction	Summary
<b>certificates</b>	Certificate[]	In	

#### 6.83.3. remove DELETE

Table 6.241. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

#### 6.83.4. testconnectivity POST

In order to test connectivity for external provider we need to run following request where 123 is an id of a provider.

POST /ovirt-engine/api/externalhostproviders/123/testconnectivity

Table 6.242. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the test should be performed asynchronously.

### 6.83.5. update PUT

Update the specified external host provider in the system.

Table 6.243. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>provider</b>	ExternalHost Provider	In/Out	

## 6.84. EXTERNALHOSTPROVIDERS

Table 6.244. Methods summary

Name	Summary
<b>add</b>	Add a new external host provider to the system.
<b>list</b>	Returns the list of external host providers.

### 6.84.1. add POST

Add a new external host provider to the system.

Table 6.245. Parameters summary

Name	Type	Direction	Summary
<b>provider</b>	ExternalHost Provider	In/Out	

### 6.84.2. list GET

Returns the list of external host providers.

The order of the returned list of host providers isn't guaranteed.

**Table 6.246. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of providers to return.
<b>providers</b>	<a href="#">ExternalHost Provider[]</a>	Out	
<b>search</b>	<a href="#">String</a>	In	A query string used to restrict the returned external host providers.

#### 6.84.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.84.2.2. max

Sets the maximum number of providers to return. If not specified all the providers are returned.

## 6.85. EXTERNALHOSTS

**Table 6.247. Methods summary**

Name	Summary
<b>list</b>	Return the list of external hosts.

#### 6.85.1. list GET

Return the list of external hosts.

The order of the returned list of hosts isn't guaranteed.

**Table 6.248. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>hosts</b>	<a href="#">ExternalHost []</a>	Out	
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of hosts to return.

### 6.85.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.85.1.2. max

Sets the maximum number of hosts to return. If not specified all the hosts are returned.

## 6.86. EXTERNALNETWORKPROVIDERCONFIGURATION

Describes how an external network provider is provisioned by the system on the host.

Table 6.249. Methods summary

Name	Summary
<b>get</b>	Returns the information about an external network provider on the host.

### 6.86.1. get GET

Returns the information about an external network provider on the host.

Table 6.250. Parameters summary

Name	Type	Direction	Summary
<b>configurati on</b>	<a href="#">ExternalNet workProvider Configuratio n</a>	Out	
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

### 6.86.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.87. EXTERNALNETWORKPROVIDERCONFIGURATIONS

A service to list all external network providers provisioned by the system on the host.

Table 6.251. Methods summary

Name	Summary
<b>list</b>	Returns the list of all external network providers on the host.

### 6.87.1. list GET

Returns the list of all external network providers on the host.

The order of the returned list of networks is not guaranteed.

Table 6.252. Parameters summary

Name	Type	Direction	Summary
<b>configurations</b>	<a href="#">ExternalNetworkProviderConfiguration[]</a>	Out	
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

#### 6.87.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.88. EXTERNAL PROVIDER

Provides capability to manage external providers.

Table 6.253. Methods summary

Name	Summary
<b>importcertificates</b>	Import the SSL certificates of the external host provider.
<b>testconnectivity</b>	In order to test connectivity for external provider we need to run following request where 123 is an id of a provider.

### 6.88.1. importcertificates POST

Import the SSL certificates of the external host provider.

Table 6.254. Parameters summary

Name	Type	Direction	Summary
<b>certificates</b>	<a href="#">Certificate[]</a>	In	

### 6.88.2. testconnectivity POST

In order to test connectivity for external provider we need to run following request where 123 is an id of a provider.

POST /ovirt-engine/api/externalhostproviders/123/testconnectivity

Table 6.255. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the test should be performed asynchronously.

## 6.89. EXTERNALPROVIDERCERTIFICATE

A service to view specific certificate for external provider.

Table 6.256. Methods summary

Name	Summary
<b>get</b>	Get specific certificate.

### 6.89.1. get GET

Get specific certificate.

```
GET /ovirt-engine/api/externalhostproviders/123/certificate/0
```

And here is sample response:

```
<certificate id="0">
  <organization>provider.example.com</organization>
  <subject>CN=provider.example.com</subject>
  <content>...</content>
</certificate>
```

Table 6.257. Parameters summary

Name	Type	Direction	Summary
<b>certificate</b>	Certificate	Out	The details of the certificate.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

#### 6.89.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.90. EXTERNALPROVIDERCERTIFICATES

A service to view certificates for external provider.

Table 6.258. Methods summary

Name	Summary
<b>list</b>	Returns the chain of certificates presented by the external provider.

### 6.90.1. list GET

Returns the chain of certificates presented by the external provider.

```
GET /ovirt-engine/api/externalhostproviders/123/certificates
```

And here is sample response:

```
<certificates>
  <certificate id="789">...</certificate>
  ...
</certificates>
```

The order of the returned certificates is always guaranteed to be the sign order: the first is the certificate of the server itself, the second the certificate of the CA that signs the first, so on.

Table 6.259. Parameters summary

Name	Type	Direction	Summary
<b>certificates</b>	<a href="#">Certificate[]</a>	Out	List containing certificate details.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of certificates to return.

#### 6.90.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.90.1.2. max

Sets the maximum number of certificates to return. If not specified all the certificates are returned.

## 6.91. EXTERNALTEMPLATEIMPORTS

Provides capability to import external templates. Currently supports OVA only.

Table 6.260. Methods summary

Name	Summary
<b>add</b>	This operation is used to import a template from external hypervisor.

### 6.91.1. add POST

This operation is used to import a template from external hypervisor.

For example import of a template OVA can be facilitated using the following request:

```
POST /externaltemplateimports
```

With request body of type [ExternalTemplateImport](#), for example:

```
<external_template_import>
  <template>
    <name>my_template</name>
  </template>
  <cluster id="2b18aca2-4469-11eb-9449-482ae35a5f83" />
  <storage_domain id="8bb5ade5-e988-4000-8b93-dbfc6717fe50" />
  <url>ova:///mnt/ova/ova_template.ova</url>
  <host id="8bb5ade5-e988-4000-8b93-dbfc6717fe50" />
</external_template_import>
```

Table 6.261. Parameters summary

Name	Type	Direction	Summary
<b>import</b>	<a href="#">ExternalTemplateImport</a>	In/Out	

## 6.92. EXTERNALVMIMPORTS

Provides capability to import external virtual machines.

Table 6.262. Methods summary

Name	Summary
<b>add</b>	This operation is used to import a virtual machine from external hypervisor, such as KVM, XEN or VMware.

### 6.92.1. add POST

This operation is used to import a virtual machine from external hypervisor, such as KVM, XEN or VMware.

For example import of a virtual machine from VMware can be facilitated using the following request:

```
POST /externalvmimports
```

With request body of type [ExternalVmImport](#), for example:

```
<external_vm_import>
  <vm>
```

```

    <name>my_vm</name>
  </vm>
  <cluster id="360014051136c20574f743bdbd28177fd" />
  <storage_domain id="8bb5ade5-e988-4000-8b93-dbf6717fe50" />
  <name>vm_name_as_is_in_vmware</name>
  <sparse>true</sparse>
  <username>vmware_user</username>
  <password>123456</password>
  <provider>VMWARE</provider>
  <url>vpx://wmware_user@vcenter-host/DataCenter/Cluster/esxi-host?no_verify=1</url>
  <drivers_iso id="virtio-win-1.6.7.iso" />
</external_vm_import>

```

Table 6.263. Parameters summary

Name	Type	Direction	Summary
<b>import</b>	ExternalVml mport	In/Out	

## 6.93. FENCEAGENT

A service to manage fence agent for a specific host.

Table 6.264. Methods summary

Name	Summary
<b>get</b>	Gets details of this fence agent.
<b>remove</b>	Removes a fence agent for a specific host.
<b>update</b>	Update a fencing-agent.

### 6.93.1. get GET

Gets details of this fence agent.

```
GET /ovirt-engine/api/hosts/123/fenceagents/0
```

And here is sample response:

```

<agent id="0">
  <type>apc</type>
  <order>1</order>
  <ip>192.168.1.101</ip>
  <user>user</user>
  <password>xxx</password>
  <port>9</port>
  <options>name1=value1, name2=value2</options>
</agent>

```

Table 6.265. Parameters summary

Name	Type	Direction	Summary
<b>agent</b>	<a href="#">Agent</a>	Out	Fence agent details.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

### 6.93.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.93.2. remove DELETE

Removes a fence agent for a specific host.

```
DELETE /ovirt-engine/api/hosts/123/fenceagents/0
```

Table 6.266. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the remove should be performed asynchronously.

### 6.93.3. update PUT

Update a fencing-agent.

Table 6.267. Parameters summary

Name	Type	Direction	Summary
<b>agent</b>	<a href="#">Agent</a>	In/Out	Fence agent details.
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the update should be performed asynchronously.

## 6.94. FENCEAGENTS

A service to manage fence agents for a specific host.

Table 6.268. Methods summary

Name	Summary
<b>add</b>	Add a new fencing-agent to the host.

Name	Summary
<b>list</b>	Returns the list of fencing agents configured for the host.

### 6.94.1. add POST

Add a new fencing-agent to the host.

POST /ovirt-engine/api/hosts/123/fenceagents

You should consult the /usr/sbin/fence\_<agent\_name> manual page for the legal parameters to [name1=value1, name2=value2,...] in the options field. If any parameter in options appears by name that means that it is mandatory. For example in <options>slot=7[,name1=value1, name2=value2,...]</options> slot is mandatory.

apc, bladecenter, wti fencing agent/s sample request:

```
<agent>
  <type>apc</type>
  <order>1</order>
  <ip>192.168.1.101</ip>
  <user>user</user>
  <password>xxx</password>
  <port>9</port>
  <options>slot=7[,name1=value1, name2=value2,...]</options>
</agent>
```

apc\_snmp, hpblade, ilo, ilo2, ilo\_ssh, redfish, rsa fencing agent/s sample request:

```
<agent>
  <type>apc_snmp</type>
  <order>1</order>
  <ip>192.168.1.101</ip>
  <user>user</user>
  <password>xxx</password>
  <port>9</port>
  <options>[name1=value1, name2=value2,...]</options>
</agent>
```

cisco\_ucs, drac5, eps fencing agent/s sample request:

```
<agent>
  <type>cisco_ucs</type>
  <order>1</order>
  <ip>192.168.1.101</ip>
  <user>user</user>
  <password>xxx</password>
  <options>slot=7[,name1=value1, name2=value2,...]</options>
</agent>
```

drac7, ilo3, ilo4, ipmilan, rsb fencing agent/s sample request:

```

<agent>
  <type>drac7</type>
  <order>1</order>
  <ip>192.168.1.101</ip>
  <user>user</user>
  <password>xxx</password>
  <options>[name1=value1, name2=value2,...]</options>
</agent>

```

Table 6.269. Parameters summary

Name	Type	Direction	Summary
<b>agent</b>	Agent	In/Out	

### 6.94.2. list GET

Returns the list of fencing agents configured for the host.

```
GET /ovirt-engine/api/hosts/123/fenceagents
```

And here is sample response:

```

<agents>
  <agent id="0">
    <type>apc</type>
    <order>1</order>
    <ip>192.168.1.101</ip>
    <user>user</user>
    <password>xxx</password>
    <port>9</port>
    <options>name1=value1, name2=value2</options>
  </agent>
</agents>

```

The order of the returned list of fencing agents isn't guaranteed.

Table 6.270. Parameters summary

Name	Type	Direction	Summary
<b>agents</b>	Agent[]	Out	List of fence agent details.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of agents to return.

#### 6.94.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.94.2.2. max

Sets the maximum number of agents to return. If not specified all the agents are returned.

## 6.95. FILE

Table 6.271. Methods summary

Name	Summary
<b>get</b>	

### 6.95.1. get GET

Table 6.272. Parameters summary

Name	Type	Direction	Summary
<b>file</b>	File	Out	
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

#### 6.95.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.96. FILES

Provides a way for clients to list available files.

This service is specifically targeted to ISO storage domains, which contain ISO images and virtual floppy disks (VFDs) that an administrator uploads.

The addition of a CD-ROM device to a virtual machine requires an ISO image from the files of an ISO storage domain.

Table 6.273. Methods summary

Name	Summary
<b>list</b>	Returns the list of ISO images and virtual floppy disks available in the storage domain.

### 6.96.1. list GET

Returns the list of ISO images and virtual floppy disks available in the storage domain. The order of the returned list is not guaranteed.

If the **refresh** parameter is **false**, the returned list may not reflect recent changes to the storage domain; for example, it may not contain a new ISO file that was recently added. This is because the server caches

the list of files to improve performance. To get the very latest results, set the **refresh** parameter to **true**.

The default value of the **refresh** parameter is **true**, but it can be changed using the configuration value **ForceRefreshDomainFilesByDefault**:

```
# engine-config -s ForceRefreshDomainFilesByDefault=false
```



### IMPORTANT

Setting the value of the **refresh** parameter to **true** has an impact on the performance of the server. Use it only if necessary.

Table 6.274. Parameters summary

Name	Type	Direction	Summary
<b>case_sensitive</b>	Boolean	In	Indicates if the search performed using the <b>search</b> parameter should take case into account.
<b>file</b>	File[]	Out	
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of files to return.
<b>refresh</b>	Boolean	In	Indicates whether the list of files should be refreshed from the storage domain, rather than showing cached results that are updated at certain intervals.
<b>search</b>	String	In	A query string used to restrict the returned files.

#### 6.96.1.1. case\_sensitive

Indicates if the search performed using the **search** parameter should take case into account. The default value is **true**.

#### 6.96.1.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.96.1.3. max

Sets the maximum number of files to return. If not specified, all the files are returned.

## 6.97. FILTER

Table 6.275. Methods summary

Name	Summary
<b>get</b>	
<b>remove</b>	

### 6.97.1. get GET

Table 6.276. Parameters summary

Name	Type	Direction	Summary
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>result</b>	Filter	Out	

#### 6.97.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.97.2. remove DELETE

Table 6.277. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

## 6.98. FILTERS

Manages the filters used by an scheduling policy.

Table 6.278. Methods summary

Name	Summary
<b>add</b>	Add a filter to a specified user defined scheduling policy.
<b>list</b>	Returns the list of filters used by the scheduling policy.

### 6.98.1. add POST

Add a filter to a specified user defined scheduling policy.

**Table 6.279. Parameters summary**

Name	Type	Direction	Summary
<b>filter</b>	Filter	In/Out	

### 6.98.2. list GET

Returns the list of filters used by the scheduling policy.

The order of the returned list of filters isn't guaranteed.

**Table 6.280. Parameters summary**

Name	Type	Direction	Summary
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>filters</b>	Filter[]	Out	
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of filters to return.

#### 6.98.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.98.2.2. max

Sets the maximum number of filters to return. If not specified all the filters are returned.

## 6.99. FOLLOW

## 6.100. GLUSTERBRICK

This service manages a single gluster brick.

**Table 6.281. Methods summary**

Name	Summary
<b>get</b>	Get details of a brick.
<b>remove</b>	Removes a brick.

Name	Summary
<b>replace</b>	Replaces this brick with a new one.

### 6.100.1. get GET

Get details of a brick.

Retrieves status details of brick from underlying gluster volume with header **All-Content** set to **true**. This is the equivalent of running **gluster volume status <volumename> <brickname> detail**.

For example, to get the details of brick **234** of gluster volume **123**, send a request like this:

```
GET /ovirt-engine/api/clusters/567/glustervolumes/123/glusterbricks/234
```

Which will return a response body like this:

```
<brick id="234">
  <name>host1:/rhgs/data/brick1</name>
  <brick_dir>/rhgs/data/brick1</brick_dir>
  <server_id>111</server_id>
  <status>up</status>
  <device>/dev/mapper/RHGS_vg1-lv_vmaddldisks</device>
  <fs_name>xfs</fs_name>
  <gluster_clients>
    <gluster_client>
      <bytes_read>2818417648</bytes_read>
      <bytes_written>1384694844</bytes_written>
      <client_port>1011</client_port>
      <host_name>client2</host_name>
    </gluster_client>
  </gluster_clients>
  <memory_pools>
    <memory_pool>
      <name>data-server:fd_t</name>
      <alloc_count>1626348</alloc_count>
      <cold_count>1020</cold_count>
      <hot_count>4</hot_count>
      <max_alloc>23</max_alloc>
      <max_stdalloc>0</max_stdalloc>
      <padded_size>140</padded_size>
      <pool_misses>0</pool_misses>
    </memory_pool>
  </memory_pools>

  <mnt_options>rw,seclabel,noatime,nodiratime,attr2,inode64,sunit=512,swidth=2048,noquota</mnt_options>
  <pid>25589</pid>
  <port>49155</port>
</brick>
```

Table 6.282. Parameters summary

Name	Type	Direction	Summary
<b>brick</b>	<a href="#">GlusterBrick</a>	Out	
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

### 6.100.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.100.2. remove DELETE

Removes a brick.

Removes a brick from the underlying gluster volume and deletes entries from database. This can be used only when removing a single brick without data migration. To remove multiple bricks and with data migration, use [migrate](#) instead.

For example, to delete brick **234** from gluster volume **123**, send a request like this:

```
DELETE /ovirt-engine/api/clusters/567/glustervolumes/123/glusterbricks/234
```

Table 6.283. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the remove should be performed asynchronously.

### 6.100.3. replace POST

Replaces this brick with a new one.



#### IMPORTANT

This operation has been deprecated since version 3.5 of the engine and will be removed in the future. Use [add brick\(s\)](#) and [migrate brick\(s\)](#) instead.

Table 6.284. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the replacement should be performed asynchronously.
<b>force</b>	<a href="#">Boolean</a>	In	

## 6.101. GLUSTERBRICKS

This service manages the gluster bricks in a gluster volume

Table 6.285. Methods summary

Name	Summary
<b>activate</b>	Activate the bricks post data migration of remove brick operation.
<b>add</b>	Adds a list of bricks to gluster volume.
<b>list</b>	Lists the bricks of a gluster volume.
<b>migrate</b>	Start migration of data prior to removing bricks.
<b>remove</b>	Removes bricks from gluster volume.
<b>stopmigrate</b>	Stops migration of data from bricks for a remove brick operation.

### 6.101.1. activate POST

Activate the bricks post data migration of remove brick operation.

Used to activate brick(s) once the data migration from bricks is complete but user no longer wishes to remove bricks. The bricks that were previously marked for removal will now be used as normal bricks.

For example, to retain the bricks that on glustervolume **123** from which data was migrated, send a request like this:

```
POST /ovirt-engine/api/clusters/567/glustervolumes/123/glusterbricks/activate
```

With a request body like this:

```
<action>
  <bricks>
    <brick>
      <name>host1:/rhgs/brick1</name>
    </brick>
  </bricks>
</action>
```

Table 6.286. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the activation should be performed asynchronously.

Name	Type	Direction	Summary
<b>bricks</b>	<a href="#">GlusterBrick[]</a>	In	The list of bricks that need to be re-activated.

### 6.101.2. add POST

Adds a list of bricks to gluster volume.

Used to expand a gluster volume by adding bricks. For replicated volume types, the parameter **replica\_count** needs to be passed. In case the replica count is being increased, then the number of bricks needs to be equivalent to the number of replica sets.

For example, to add bricks to gluster volume **123**, send a request like this:

```
POST /ovirt-engine/api/clusters/567/glustervolumes/123/glusterbricks
```

With a request body like this:

```
<bricks>
  <brick>
    <server_id>111</server_id>
    <brick_dir>/export/data/brick3</brick_dir>
  </brick>
</bricks>
```

Table 6.287. Parameters summary

Name	Type	Direction	Summary
<b>bricks</b>	<a href="#">GlusterBrick[]</a>	In/Out	The list of bricks to be added to the volume
<b>replica_count</b>	<a href="#">Integer</a>	In	Replica count of volume post add operation.
<b>stripe_count</b>	<a href="#">Integer</a>	In	Stripe count of volume post add operation.

### 6.101.3. list GET

Lists the bricks of a gluster volume.

For example, to list bricks of gluster volume **123**, send a request like this:

```
GET /ovirt-engine/api/clusters/567/glustervolumes/123/glusterbricks
```

Provides an output as below:

```
<bricks>
```

```

<brick id="234">
  <name>host1:/rhgs/data/brick1</name>
  <brick_dir>/rhgs/data/brick1</brick_dir>
  <server_id>111</server_id>
  <status>up</status>
</brick>
<brick id="233">
  <name>host2:/rhgs/data/brick1</name>
  <brick_dir>/rhgs/data/brick1</brick_dir>
  <server_id>222</server_id>
  <status>up</status>
</brick>
</bricks>

```

The order of the returned list is based on the brick order provided at gluster volume creation.

Table 6.288. Parameters summary

Name	Type	Direction	Summary
<b>bricks</b>	GlusterBrick[ ]	Out	
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of bricks to return.

#### 6.101.3.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.101.3.2. max

Sets the maximum number of bricks to return. If not specified all the bricks are returned.

#### 6.101.4. migrate POST

Start migration of data prior to removing bricks.

Removing bricks is a two-step process, where the data on bricks to be removed, is first migrated to remaining bricks. Once migration is completed the removal of bricks is confirmed via the API [remove](#). If at any point, the action needs to be cancelled [stopmigrate](#) has to be called.

For instance, to delete a brick from a gluster volume with id **123**, send a request:

```
POST /ovirt-engine/api/clusters/567/glustervolumes/123/glusterbricks/migrate
```

With a request body like this:

```

<action>
  <bricks>
  <brick>

```

```

    <name>host1:/rhgs/brick1</name>
  </brick>
</bricks>
</action>

```

The migration process can be tracked from the job id returned from the API using [job](#) and steps in job using [step](#)

**Table 6.289. Parameters summary**

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the migration should be performed asynchronously.
<b>bricks</b>	GlusterBrick[ ]	In	List of bricks for which data migration needs to be started.

### 6.101.5. remove DELETE

Removes bricks from gluster volume.

The recommended way to remove bricks without data loss is to first migrate the data using [stopmigrate](#) and then removing them. If migrate was not called on bricks prior to remove, the bricks are removed without data migration which may lead to data loss.

For example, to delete the bricks from gluster volume **123**, send a request like this:

```
DELETE /ovirt-engine/api/clusters/567/glustervolumes/123/glusterbricks
```

With a request body like this:

```

<bricks>
  <brick>
    <name>host:brick_directory</name>
  </brick>
</bricks>

```

**Table 6.290. Parameters summary**

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.
<b>bricks</b>	GlusterBrick[ ]	In	The list of bricks to be removed
<b>replica_count</b>	Integer	In	Replica count of volume post add operation.

## 6.101.6. stopmigrate POST

Stops migration of data from bricks for a remove brick operation.

To cancel data migration that was started as part of the 2-step remove brick process in case the user wishes to continue using the bricks. The bricks that were marked for removal will function as normal bricks post this operation.

For example, to stop migration of data from the bricks of gluster volume **123**, send a request like this:

```
POST /ovirt-engine/api/clusters/567/glustervolumes/123/glusterbricks/stopmigrate
```

With a request body like this:

```
<bricks>
  <brick>
    <name>host:brick_directory</name>
  </brick>
</bricks>
```

Table 6.291. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the action should be performed asynchronously.
<b>bricks</b>	GlusterBrick[ ]	In	List of bricks for which data migration needs to be stopped.

### 6.101.6.1. bricks

List of bricks for which data migration needs to be stopped. This list should match the arguments passed to [migrate](#).

## 6.102. GLUSTERHOOK

Table 6.292. Methods summary

Name	Summary
<b>disable</b>	Resolves status conflict of hook among servers in cluster by disabling Gluster hook in all servers of the cluster.
<b>enable</b>	Resolves status conflict of hook among servers in cluster by disabling Gluster hook in all servers of the cluster.
<b>get</b>	
<b>remove</b>	Removes the this Gluster hook from all servers in cluster and deletes it from the database.

Name	Summary
<b>resolve</b>	Resolves missing hook conflict depending on the resolution type.

### 6.102.1. disable POST

Resolves status conflict of hook among servers in cluster by disabling Gluster hook in all servers of the cluster. This updates the hook status to **DISABLED** in database.

Table 6.293. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the action should be performed asynchronously.

### 6.102.2. enable POST

Resolves status conflict of hook among servers in cluster by disabling Gluster hook in all servers of the cluster. This updates the hook status to **DISABLED** in database.

Table 6.294. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the action should be performed asynchronously.

### 6.102.3. get GET

Table 6.295. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>hook</b>	GlusterHook	Out	

#### 6.102.3.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.102.4. remove DELETE

Removes the this Gluster hook from all servers in cluster and deletes it from the database.

Table 6.296. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

### 6.102.5. resolve POST

Resolves missing hook conflict depending on the resolution type.

For **ADD** resolves by copying hook stored in engine database to all servers where the hook is missing. The engine maintains a list of all servers where hook is missing.

For **COPY** resolves conflict in hook content by copying hook stored in engine database to all servers where the hook is missing. The engine maintains a list of all servers where the content is conflicting. If a host id is passed as parameter, the hook content from the server is used as the master to copy to other servers in cluster.

Table 6.297. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the action should be performed asynchronously.
<b>host</b>	Host	In	
<b>resolution_type</b>	String	In	

## 6.103. GLUSTERHOOKS

Table 6.298. Methods summary

Name	Summary
<b>list</b>	Returns the list of hooks.

### 6.103.1. list GET

Returns the list of hooks.

The order of the returned list of hooks isn't guaranteed.

Table 6.299. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
<b>hooks</b>	<a href="#">GlusterHook</a> []	Out	
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of hooks to return.

#### 6.103.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.103.1.2. max

Sets the maximum number of hooks to return. If not specified all the hooks are returned.

## 6.104. GLUSTERVOLUME

This service manages a single gluster volume.

Table 6.300. Methods summary

Name	Summary
<b>get</b>	Get the gluster volume details.
<b>getprofilestatistics</b>	Get gluster volume profile statistics.
<b>rebalance</b>	Rebalance the gluster volume.
<b>remove</b>	Removes the gluster volume.
<b>resetalloptions</b>	Resets all the options set in the gluster volume.
<b>resetoption</b>	Resets a particular option in the gluster volume.
<b>setoption</b>	Sets a particular option in the gluster volume.
<b>start</b>	Starts the gluster volume.
<b>startprofile</b>	Start profiling the gluster volume.
<b>stop</b>	Stops the gluster volume.
<b>stopprofile</b>	Stop profiling the gluster volume.

Name	Summary
<b>stoprebalance</b>	Stop rebalancing the gluster volume.

### 6.104.1. get GET

Get the gluster volume details.

For example, to get details of a gluster volume with identifier **123** in cluster **456**, send a request like this:

```
GET /ovirt-engine/api/clusters/456/glustervolumes/123
```

This GET request will return the following output:

```
<gluster_volume id="123">
  <name>data</name>
  <link href="/ovirt-engine/api/clusters/456/glustervolumes/123/glusterbricks" rel="glusterbricks"/>
  <disperse_count>0</disperse_count>
  <options>
    <option>
      <name>storage.owner-gid</name>
      <value>36</value>
    </option>
    <option>
      <name>performance.io-cache</name>
      <value>off</value>
    </option>
    <option>
      <name>cluster.data-self-heal-algorithm</name>
      <value>full</value>
    </option>
  </options>
  <redundancy_count>0</redundancy_count>
  <replica_count>3</replica_count>
  <status>up</status>
  <stripe_count>0</stripe_count>
  <transport_types>
    <transport_type>tcp</transport_type>
  </transport_types>
  <volume_type>replicate</volume_type>
</gluster_volume>
```

Table 6.301. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>volume</b>	GlusterVolume	Out	Representation of the gluster volume.

### 6.104.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.104.2. getprofilestatistics POST

Get gluster volume profile statistics.

For example, to get profile statistics for a gluster volume with identifier **123** in cluster **456**, send a request like this:

```
POST /ovirt-engine/api/clusters/456/glustervolumes/123/getprofilestatistics
```

Table 6.302. Parameters summary

Name	Type	Direction	Summary
<b>details</b>	<a href="#">GlusterVolumeProfileDetails</a>	Out	Gluster volume profiling information returned from the action.

### 6.104.3. rebalance POST

Rebalance the gluster volume.

Rebalancing a gluster volume helps to distribute the data evenly across all the bricks. After expanding or shrinking a gluster volume (without migrating data), we need to rebalance the data among the bricks. In a non-replicated volume, all bricks should be online to perform the rebalance operation. In a replicated volume, at least one of the bricks in the replica should be online.

For example, to rebalance a gluster volume with identifier **123** in cluster **456**, send a request like this:

```
POST /ovirt-engine/api/clusters/456/glustervolumes/123/rebalance
```

Table 6.303. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the rebalance should be performed asynchronously.
<b>fix_layout</b>	<a href="#">Boolean</a>	In	If set to true, rebalance will only fix the layout so that new data added to the volume is distributed across all the hosts.
<b>force</b>	<a href="#">Boolean</a>	In	Indicates if the rebalance should be force started.

#### 6.104.3.1. fix\_layout

If set to true, rebalance will only fix the layout so that new data added to the volume is distributed across all the hosts. But it will not migrate/rebalance the existing data. Default is **false**.

### 6.104.3.2. force

Indicates if the rebalance should be force started. The rebalance command can be executed with the force option even when the older clients are connected to the cluster. However, this could lead to a data loss situation. Default is **false**.

### 6.104.4. remove DELETE

Removes the gluster volume.

For example, to remove a volume with identifier **123** in cluster **456**, send a request like this:

```
DELETE /ovirt-engine/api/clusters/456/glustervolumes/123
```

Table 6.304. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

### 6.104.5. resetalloptions POST

Resets all the options set in the gluster volume.

For example, to reset all options in a gluster volume with identifier **123** in cluster **456**, send a request like this:

```
POST /ovirt-engine/api/clusters/456/glustervolumes/123/resetalloptions
```

Table 6.305. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the reset should be performed asynchronously.

### 6.104.6. resetoption POST

Resets a particular option in the gluster volume.

For example, to reset a particular option **option1** in a gluster volume with identifier **123** in cluster **456**, send a request like this:

```
POST /ovirt-engine/api/clusters/456/glustervolumes/123/resetoption
```

With the following request body:

```
<action>
<option name="option1"/>
</action>
```

Table 6.306. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the reset should be performed asynchronously.
<b>force</b>	Boolean	In	
<b>option</b>	Option	In	Option to reset.

### 6.104.7. setoption POST

Sets a particular option in the gluster volume.

For example, to set **option1** with value **value1** in a gluster volume with identifier **123** in cluster **456**, send a request like this:

```
POST /ovirt-engine/api/clusters/456/glustervolumes/123/setoption
```

With the following request body:

```
<action>
<option name="option1" value="value1"/>
</action>
```

Table 6.307. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the action should be performed asynchronously.
<b>option</b>	Option	In	Option to set.

### 6.104.8. start POST

Starts the gluster volume.

A Gluster Volume should be started to read/write data. For example, to start a gluster volume with identifier **123** in cluster **456**, send a request like this:

```
POST /ovirt-engine/api/clusters/456/glustervolumes/123/start
```

Table 6.308. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the action should be performed asynchronously.
<b>force</b>	Boolean	In	Indicates if the volume should be force started.

#### 6.104.8.1. force

Indicates if the volume should be force started. If a gluster volume is started already but few/all bricks are down then force start can be used to bring all the bricks up. Default is **false**.

#### 6.104.9. startprofile POST

Start profiling the gluster volume.

For example, to start profiling a gluster volume with identifier **123** in cluster **456**, send a request like this:

```
POST /ovirt-engine/api/clusters/456/glustervolumes/123/startprofile
```

Table 6.309. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the action should be performed asynchronously.

#### 6.104.10. stop POST

Stops the gluster volume.

Stopping a volume will make its data inaccessible.

For example, to stop a gluster volume with identifier **123** in cluster **456**, send a request like this:

```
POST /ovirt-engine/api/clusters/456/glustervolumes/123/stop
```

Table 6.310. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the action should be performed asynchronously.
<b>force</b>	Boolean	In	

#### 6.104.11. stopprofile POST

Stop profiling the gluster volume.

For example, to stop profiling a gluster volume with identifier **123** in cluster **456**, send a request like this:

```
POST /ovirt-engine/api/clusters/456/glustervolumes/123/stopprofile
```

Table 6.311. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the action should be performed asynchronously.

### 6.104.12. stoprebalance POST

Stop rebalancing the gluster volume.

For example, to stop rebalancing a gluster volume with identifier **123** in cluster **456**, send a request like this:

```
POST /ovirt-engine/api/clusters/456/glustervolumes/123/stoprebalance
```

Table 6.312. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the action should be performed asynchronously.

## 6.105. GLUSTERVOLUMES

This service manages a collection of gluster volumes available in a cluster.

Table 6.313. Methods summary

Name	Summary
<b>add</b>	Creates a new gluster volume.
<b>list</b>	Lists all gluster volumes in the cluster.

### 6.105.1. add POST

Creates a new gluster volume.

The volume is created based on properties of the **volume** parameter. The properties **name**, **volume\_type** and **bricks** are required.

For example, to add a volume with name **myvolume** to the cluster **123**, send the following request:

```
POST /ovirt-engine/api/clusters/123/glustervolumes
```

With the following request body:

```
<gluster_volume>
  <name>myvolume</name>
  <volume_type>replicate</volume_type>
  <replica_count>3</replica_count>
  <bricks>
    <brick>
      <server_id>server1</server_id>
      <brick_dir>/exp1</brick_dir>
    </brick>
    <brick>
      <server_id>server2</server_id>
      <brick_dir>/exp1</brick_dir>
    </brick>
    <brick>
      <server_id>server3</server_id>
      <brick_dir>/exp1</brick_dir>
    </brick>
  </bricks>
</gluster_volume>
```

Table 6.314. Parameters summary

Name	Type	Direction	Summary
<b>volume</b>	GlusterVolume	In/Out	The gluster volume definition from which to create the volume is passed as input and the newly created volume is returned.

### 6.105.2. list GET

Lists all gluster volumes in the cluster.

For example, to list all Gluster Volumes in cluster **456**, send a request like this:

```
GET /ovirt-engine/api/clusters/456/glustervolumes
```

The order of the returned list of volumes isn't guaranteed.

Table 6.315. Parameters summary

Name	Type	Direction	Summary
<b>case_sensitive</b>	Boolean	In	Indicates if the search performed using the <b>search</b> parameter should be performed taking case into account.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of volumes to return.

Name	Type	Direction	Summary
<b>search</b>	String	In	A query string used to restrict the returned volumes.
<b>volumes</b>	GlusterVolume[]	Out	

### 6.105.2.1. case\_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

### 6.105.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.105.2.3. max

Sets the maximum number of volumes to return. If not specified all the volumes are returned.

## 6.106. GROUP

Manages a group of users. Use this service to either get groups details or remove groups. In order to add new groups please use [service](#) that manages the collection of groups.

Table 6.316. Methods summary

Name	Summary
<b>get</b>	Gets the system group information.
<b>remove</b>	Removes the system group.

### 6.106.1. get GET

Gets the system group information.

Usage:

```
GET /ovirt-engine/api/groups/123
```

Will return the group information:

```
<group href="/ovirt-engine/api/groups/123" id="123">
  <name>mygroup</name>
  <link href="/ovirt-engine/api/groups/123/roles" rel="roles"/>
  <link href="/ovirt-engine/api/groups/123/permissions" rel="permissions"/>
```

```

<link href="/ovirt-engine/api/groups/123/tags" rel="tags"/>

<domain_entry_id>476652557A382F67696B6D2B32762B37796E46476D513D3D</domain_entry_id
>
<namespace>DC=example,DC=com</namespace>
<domain href="/ovirt-engine/api/domains/ABCDEF" id="ABCDEF">
  <name>myextension-authz</name>
</domain>
</group>

```

Table 6.317. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>get</b>	Group	Out	The system group.

### 6.106.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.106.2. remove DELETE

Removes the system group.

Usage:

```
DELETE /ovirt-engine/api/groups/123
```

Table 6.318. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

## 6.107. GROUPS

Manages the collection of groups of users.

Table 6.319. Methods summary

Name	Summary
<b>add</b>	Add group from a directory service.
<b>list</b>	List all the groups in the system.

### 6.107.1. add POST

Add group from a directory service. Please note that domain name is name of the authorization provider.

For example, to add the **Developers** group from the **internal-authz** authorization provider send a request like this:

```
POST /ovirt-engine/api/groups
```

With a request body like this:

```
<group>
  <name>Developers</name>
  <domain>
    <name>internal-authz</name>
  </domain>
</group>
```

Table 6.320. Parameters summary

Name	Type	Direction	Summary
<b>group</b>	Group	In/Out	The group to be added.

### 6.107.2. list GET

List all the groups in the system.

Usage:

```
GET /ovirt-engine/api/groups
```

Will return the list of groups:

```
<groups>
  <group href="/ovirt-engine/api/groups/123" id="123">
    <name>mygroup</name>
    <link href="/ovirt-engine/api/groups/123/roles" rel="roles"/>
    <link href="/ovirt-engine/api/groups/123/permissions" rel="permissions"/>
    <link href="/ovirt-engine/api/groups/123/tags" rel="tags"/>

    <domain_entry_id>476652557A382F67696B6D2B32762B37796E46476D513D3D</domain_entry_id
  >
    <namespace>DC=example,DC=com</namespace>
    <domain href="/ovirt-engine/api/domains/ABCDEF" id="ABCDEF">
      <name>myextension-authz</name>
    </domain>
  </group>
  ...
</groups>
```

The order of the returned list of groups isn't guaranteed.

Table 6.321. Parameters summary

Name	Type	Direction	Summary
<b>case_sensitive</b>	Boolean	In	Indicates if the search performed using the <b>search</b> parameter should be performed taking case into account.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>groups</b>	Group[]	Out	The list of groups.
<b>max</b>	Integer	In	Sets the maximum number of groups to return.
<b>search</b>	String	In	A query string used to restrict the returned groups.

#### 6.107.2.1. case\_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

#### 6.107.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.107.2.3. max

Sets the maximum number of groups to return. If not specified all the groups are returned.

## 6.108. HOST

A service to manage a host.

Table 6.322. Methods summary

Name	Summary
<b>activate</b>	Activates the host for use, for example to run virtual machines.
<b>approve</b>	Approve a pre-installed Hypervisor host for usage in the virtualization environment.
<b>commitnetconfig</b>	Marks the network configuration as good and persists it inside the host.
<b>copyhostnetworks</b>	Copy the network configuration of the specified host to current host.

Name	Summary
<b>deactivate</b>	Deactivates the host to perform maintenance tasks.
<b>discoveriscsi</b>	Discovers iSCSI targets on the host, using the initiator details.
<b>enrollcertificate</b>	Enrolls the certificate of the host.
<b>fence</b>	Controls the host's power management device.
<b>forceselectspm</b>	To manually set a host as the storage pool manager (SPM).
<b>get</b>	Gets the host details.
<b>install</b>	Installs the latest version of VDSM and related software on the host.
<b>iscsidiscover</b>	This method has been deprecated since Engine version 4.
<b>iscsilogin</b>	Login to iSCSI targets on the host, using the target details.
<b>refresh</b>	Refresh the host devices and capabilities.
<b>remove</b>	Remove the host from the system.
<b>setupnetworks</b>	This method is used to change the configuration of the network interfaces of a host.
<b>syncallnetworks</b>	To synchronize all networks on the host, send a request like this:  [source] ---- POST /ovirt-engine/api/hosts/123/syncallnetworks ----  With a request body like this:  [source,xml] ---- <action/> ----
<b>unregisteredstoragedomainsdiscover</b>	Discovers the block Storage Domains which are candidates to be imported to the setup.
<b>update</b>	Update the host properties.
<b>upgrade</b>	Upgrades VDSM and selected software on the host.
<b>upgradecheck</b>	Check if there are upgrades available for the host.

### 6.108.1. activate POST

Activates the host for use, for example to run virtual machines.

Table 6.323. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the activation should be performed asynchronously.

### 6.108.2. approve POST

Approve a pre-installed Hypervisor host for usage in the virtualization environment.

This action also accepts an optional cluster element to define the target cluster for this host.

Table 6.324. Parameters summary

Name	Type	Direction	Summary
<b>activate</b>	Boolean	In	When set to 'true', this host will be activated after its approval completes.
<b>async</b>	Boolean	In	Indicates if the approval should be performed asynchronously.
<b>cluster</b>	Cluster	In	The cluster where the host will be added after it is approved.
<b>host</b>	Host	In	The host to approve.
<b>reboot</b>	Boolean	In	Indicates if the host should be rebooted after successful installation.

#### 6.108.2.1. activate

When set to 'true', this host will be activated after its approval completes. When set to 'false' the host will remain in 'maintenance' status after its approval. Absence of this parameter will be interpreted as 'true', since the desired default behavior is activating the host after approval.

#### 6.108.2.2. reboot

Indicates if the host should be rebooted after successful installation. The default value is **true**.

### 6.108.3. commitnetconfig POST

Marks the network configuration as good and persists it inside the host.

An API user commits the network configuration to persist a host network interface attachment or detachment, or persist the creation and deletion of a bonded interface.

**IMPORTANT**

Networking configuration is only committed after the engine has established that host connectivity is not lost as a result of the configuration changes. If host connectivity is lost, the host requires a reboot and automatically reverts to the previous networking configuration.

For example, to commit the network configuration of host with id **123** send a request like this:

```
POST /ovirt-engine/api/hosts/123/commitnetconfig
```

With a request body like this:

```
<action/>
```

**IMPORTANT**

Since Red Hat Virtualization Manager 4.3, it is possible to also specify **commit\_on\_success** in the [setupnetworks](#) request, in which case the new configuration is automatically saved in the {hypervisor-name} upon completing the setup and re-establishing connectivity between the {hypervisor-name} and Red Hat Virtualization Manager, and without waiting for a separate [commitnetconfig](#) request.

Table 6.325. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the action should be performed asynchronously.

#### 6.108.4. copyhostnetworks POST

Copy the network configuration of the specified host to current host.

**IMPORTANT**

Any network attachments that are not present on the source host will be erased from the target host by the copy operation.

To copy networks from another host, send a request like this:

```
POST /ovirt-engine/api/hosts/123/copyhostnetworks
```

With a request body like this:

```
<action>
  <source_host id="456"/>
</action>
```

Table 6.326. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the action should be performed asynchronously.
<b>source_host</b>	Host	In	The host to copy networks from.

### 6.108.5. deactivate POST

Deactivates the host to perform maintenance tasks.

Table 6.327. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the deactivation should be performed asynchronously.
<b>reason</b>	String	In	
<b>stop_gluster_service</b>	Boolean	In	Indicates if the gluster service should be stopped as part of deactivating the host.

#### 6.108.5.1. stop\_gluster\_service

Indicates if the gluster service should be stopped as part of deactivating the host. It can be used while performing maintenance operations on the gluster host. Default value for this variable is **false**.

### 6.108.6. discoveriscsi POST

Discovers iSCSI targets on the host, using the initiator details. Returns a list of `IscsiDetails` objects containing the discovered data.

For example, to discover iSCSI targets available in **myiscsi.example.com**, from host **123**, send a request like this:

```
POST /ovirt-engine/api/hosts/123/discoveriscsi
```

With a request body like this:

```
<action>
  <iscsi>
    <address>myiscsi.example.com</address>
  </iscsi>
</action>
```

The result will be like this:

```
<discovered_targets>
```

```

<iscsi_details>
  <address>10.35.1.72</address>
  <port>3260</port>
  <portal>10.35.1.72:3260,1</portal>
  <target>iqn.2015-08.com.tgt:444</target>
</iscsi_details>
</discovered_targets>

```



### IMPORTANT

When using this method to discover iscsi targets, you can use an FQDN or an IP address, but you must use the iscsi details from the discovered targets results to log in using the iscsilogin method.

Table 6.328. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the discovery should be performed asynchronously.
<b>discovered_targets</b>	IscsiDetails[]	Out	The discovered targets including all connection information.
<b>iscsi</b>	IscsiDetails	In	The target iSCSI device.

### 6.108.7. enrollcertificate POST

Enrolls the certificate of the host. Useful in case you get a warning that it is about to expire or has already expired.

Table 6.329. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the enrollment should be performed asynchronously.

### 6.108.8. fence POST

Controls the host's power management device.

For example, to start the host. This can be done via:

```

#!/bin/sh -ex

url="https://engine.example.com/ovirt-engine/api"
user="admin@internal"
password="..."

curl \

```

```

--verbose \
--cacert /etc/pki/ovirt-engine/ca.pem \
--user "${user}:${password}" \
--request POST \
--header "Version: 4" \
--header "Content-Type: application/xml" \
--header "Accept: application/xml" \
--data '
<action>
  <fence_type>start</fence_type>
</action>
' \
"${url}/hosts/123/fence"

```

Table 6.330. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the fencing should be performed asynchronously.
<b>fence_type</b>	String	In	
<b>maintenance_after_restart</b>	Boolean	In	Indicates if host should be put into maintenance after restart.
<b>power_management</b>	PowerManagement	Out	

### 6.108.9. forceselectspm POST

To manually set a host as the storage pool manager (SPM).

```
POST /ovirt-engine/api/hosts/123/forceselectspm
```

With a request body like this:

```
<action/>
```

Table 6.331. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the action should be performed asynchronously.

### 6.108.10. get GET

Gets the host details.

■

```
GET /ovirt-engine/api/hosts/123
```

Table 6.332. Parameters summary

Name	Type	Direction	Summary
<b>all_content</b>	Boolean	In	Indicates if all of the attributes of the host should be included in the response.
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>host</b>	Host	Out	The queried host.

### 6.108.10.1. all\_content

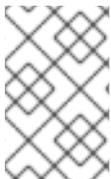
Indicates if all of the attributes of the host should be included in the response.

By default the following attributes are excluded:

- **hosted\_engine**

For example, to retrieve the complete representation of host '123':

```
GET /ovirt-engine/api/hosts/123?all_content=true
```



#### NOTE

These attributes are not included by default because retrieving them impacts performance. They are seldom used and require additional queries to the database. Use this parameter with caution and only when specifically required.

### 6.108.10.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.108.11. install POST

Installs the latest version of VDSM and related software on the host.

The action also performs every configuration steps on the host which is done during adding host to the engine: kdump configuration, hosted-engine deploy, kernel options changes, etc.

The host type defines additional parameters for the action.

Example of installing a host, using **curl** and JSON, plain:

```
curl \
--verbose \
```

```
--cacert /etc/pki/ovirt-engine/ca.pem \
--request PUT \
--header "Content-Type: application/json" \
--header "Accept: application/json" \
--header "Version: 4" \
--user "admin@internal:..." \
--data '
{
  "root_password": "myrootpassword"
}
'\
"https://engine.example.com/ovirt-engine/api/hosts/123"
```

Example of installing a host using **curl** and JSON with hosted engine components:

```
curl \
curl \
--verbose \
--cacert /etc/pki/ovirt-engine/ca.pem \
--request PUT \
--header "Content-Type: application/json" \
--header "Accept: application/json" \
--header "Version: 4" \
--user "admin@internal:..." \
--data '
{
  "root_password": "myrootpassword"
  "deploy_hosted_engine" : "true"
}
'\
"https://engine.example.com/ovirt-engine/api/hosts/123"
```



### IMPORTANT

Since version 4.1.2 of the engine, when a host is reinstalled we override the host firewall definitions by default.

Table 6.333. Parameters summary

Name	Type	Direction	Summary
<b>activate</b>	Boolean	In	When set to 'true', this host will be activated after its installation completes.
<b>async</b>	Boolean	In	Indicates if the installation should be performed asynchronously.
<b>deploy_hosted_engine</b>	Boolean	In	When set to <b>true</b> this host will also deploy the self-hosted engine components.

Name	Type	Direction	Summary
<b>host</b>	Host	In	The <b>override_iptables</b> property is used to indicate if the firewall configuration should be replaced by the default one.
<b>image</b>	String	In	When installing {hypervisor-name}, an ISO image file is required.
<b>reboot</b>	Boolean	In	Indicates if the host should be rebooted after successful installation.
<b>root_pass word</b>	String	In	The password of the <b>root</b> user used to connect to the host via SSH.
<b>ssh</b>	Ssh	In	The SSH details used to connect to the host.
<b>undeploy_ hosted_en gine</b>	Boolean	In	When set to <b>true</b> this host will un-deploy the self-hosted engine components, and this host will not function as part of the High Availability cluster.

#### 6.108.11.1. activate

When set to 'true', this host will be activated after its installation completes. When set to 'false' the host will remain in 'maintenance' status after its installation. Absence of this parameter will be interpreted as 'true', since the desired default behavior is activating the host after install.

#### 6.108.11.2. deploy\_hosted\_engine

When set to **true** this host will also deploy the self-hosted engine components. A missing value is treated as **true** i.e deploy. Omitting this parameter means **false** and will not perform any operation in the self-hosted engine area.

#### 6.108.11.3. reboot

Indicates if the host should be rebooted after successful installation. The default value is **true**.

#### 6.108.11.4. undeploy\_hosted\_engine

When set to **true** this host will un-deploy the self-hosted engine components, and this host will not function as part of the High Availability cluster. A missing value is treated as **true** i.e un-deploy. Omitting this parameter means **false** and will not perform any operation in the self-hosted engine area.

### 6.108.12. iscsidiscover POST

This method has been deprecated since Engine version 4.4.6. DiscoverIscsi should be used instead.

Discovers iSCSI targets on the host, using the initiator details. Returns an array of strings containing the discovered data.

For example, to discover iSCSI targets available in **myiscsi.example.com**, from host **123**, send a request like this:

```
POST /ovirt-engine/api/hosts/123/iscsidiscover
```

With a request body like this:

```
<action>
  <iscsi>
    <address>myiscsi.example.com</address>
  </iscsi>
</action>
```

Table 6.334. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the discovery should be performed asynchronously.
<b>iscsi</b>	IscsiDetails	In	The target iSCSI device.
<b>iscsi_targets</b>	String[]	Out	The iSCSI targets.

#### 6.108.12.1. iscsi\_targets

The iSCSI targets. \*

#### 6.108.13. iscsilogin POST

Login to iSCSI targets on the host, using the target details.



#### IMPORTANT

When using this method to log in, you must use the iscsi details from the discovered targets results in the discoveriscsi method.

Table 6.335. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the login should be performed asynchronously.
<b>iscsi</b>	IscsiDetails	In	The target iSCSI device.

#### 6.108.14. refresh POST

Refresh the host devices and capabilities.

Table 6.336. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the refresh should be performed asynchronously.

### 6.108.15. remove DELETE

Remove the host from the system.

```
#!/bin/sh -ex

url="https://engine.example.com/ovirt-engine/api"
user="admin@internal"
password="..."

curl \
--verbose \
--cacert /etc/pki/ovirt-engine/ca.pem \
--user "${user}:${password}" \
--request DELETE \
--header "Version: 4" \
"${url}/hosts/1ff7a191-2f3b-4eff-812b-9f91a30c3acc"
```

Table 6.337. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.
<b>force</b>	Boolean	In	Indicates that the host should be removed even if it is non-responsive, or if it is part of a Gluster Storage cluster and has volume bricks on it.

### 6.108.16. setupnetworks POST

This method is used to change the configuration of the network interfaces of a host.

For example, if you have a host with three network interfaces **eth0**, **eth1** and **eth2** and you want to configure a new bond using **eth0** and **eth1**, and put a VLAN on top of it. Using a simple shell script and the **curl** command line HTTP client that can be done as follows:

```
#!/bin/sh -ex

url="https://engine.example.com/ovirt-engine/api"
user="admin@internal"
password="..."

curl \
--verbose \
```

```
--cacert /etc/pki/ovirt-engine/ca.pem \  
--user "${user}:${password}" \  
--request POST \  
--header "Version: 4" \  
--header "Content-Type: application/xml" \  
--header "Accept: application/xml" \  
--data '  
<action>  
  <modified_bonds>  
    <host_nic>  
      <name>bond0</name>  
      <bonding>  
        <options>  
          <option>  
            <name>mode</name>  
            <value>4</value>  
          </option>  
          <option>  
            <name>miimon</name>  
            <value>100</value>  
          </option>  
        </options>  
        <slaves>  
          <host_nic>  
            <name>eth1</name>  
          </host_nic>  
          <host_nic>  
            <name>eth2</name>  
          </host_nic>  
        </slaves>  
      </bonding>  
    </host_nic>  
  </modified_bonds>  
  <modified_network_attachments>  
    <network_attachment>  
      <network>  
        <name>myvlan</name>  
      </network>  
      <host_nic>  
        <name>bond0</name>  
      </host_nic>  
      <ip_address_assignments>  
        <ip_address_assignment>  
          <assignment_method>static</assignment_method>  
          <ip>  
            <address>192.168.122.10</address>  
            <netmask>255.255.255.0</netmask>  
          </ip>  
        </ip_address_assignment>  
      </ip_address_assignments>  
      <dns_resolver_configuration>  
        <name_servers>  
          <name_server>1.1.1.1</name_server>  
          <name_server>2.2.2.2</name_server>  
        </name_servers>  
      </dns_resolver_configuration>
```

```

</network_attachment>
</modified_network_attachments>
</action>
'\
"${url}/hosts/1ff7a191-2f3b-4eff-812b-9f91a30c3acc/setupnetworks"

```



## NOTE

This is valid for version 4 of the API. In previous versions some elements were represented as XML attributes instead of XML elements. In particular the **options** and **ip** elements were represented as follows:

```

<options name="mode" value="4"/>
<options name="miimon" value="100"/>
<ip address="192.168.122.10" netmask="255.255.255.0"/>

```

The same thing can be done using the Python SDK with the following code:

```

# Find the service that manages the collection of hosts:
hosts_service = connection.system_service().hosts_service()

# Find the host:
host = hosts_service.list(search='name=myhost')[0]

# Find the service that manages the host:
host_service = hosts_service.host_service(host.id)

# Configure the network adding a bond with two slaves and attaching it to a
# network with an static IP address:
host_service.setup_networks(
    modified_bonds=[
        types.HostNic(
            name='bond0',
            bonding=types.Bonding(
                options=[
                    types.Option(
                        name='mode',
                        value='4',
                    ),
                    types.Option(
                        name='miimon',
                        value='100',
                    ),
                ],
            ),
        ],
        slaves=[
            types.HostNic(
                name='eth1',
            ),
            types.HostNic(
                name='eth2',
            ),
        ],
    ),
)

```

```

    ],
    modified_network_attachments=[
        types.NetworkAttachment(
            network=types.Network(
                name='myvlan',
            ),
            host_nic=types.HostNic(
                name='bond0',
            ),
            ip_address_assignments=[
                types.IpAddressAssignment(
                    assignment_method=types.BootProtocol.STATIC,
                    ip=types.Ip(
                        address='192.168.122.10',
                        netmask='255.255.255.0',
                    ),
                ),
            ],
        ),
    ],
    dns_resolver_configuration=types.DnsResolverConfiguration(
        name_servers=[
            '1.1.1.1',
            '2.2.2.2',
        ],
    ),
),
],
)

```

*# After modifying the network configuration it is very important to make it # persistent:*  
 host\_service.commit\_net\_config()



### IMPORTANT

To make sure that the network configuration has been saved in the host, and that it will be applied when the host is rebooted, remember to call [commitnetconfig](#).



### IMPORTANT

Since Red Hat Virtualization Manager 4.3, it is possible to also specify **commit\_on\_success** in the [setupnetworks](#) request, in which case the new configuration is automatically saved in the {hypervisor-name} upon completing the setup and re-establishing connectivity between the {hypervisor-name} and Red Hat Virtualization Manager, and without waiting for a separate [commitnetconfig](#) request.

Table 6.338. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the action should be performed asynchronously.

Name	Type	Direction	Summary
<b>check_connectivity</b>	Boolean	In	
<b>commit_on_success</b>	Boolean	In	Specifies whether to automatically save the configuration in the {hypervisor-name} upon completing the setup and re-establishing connectivity between the {hypervisor-name} and Red Hat Virtualization Manager, and without waiting for a separate <code>commitnetconfig</code> request.
<b>connectivity_timeout</b>	Integer	In	
<b>modified_bonds</b>	HostNic[]	In	
<b>modified_labels</b>	NetworkLabel[]	In	
<b>modified_network_attachments</b>	NetworkAttachment[]	In	
<b>removed_bonds</b>	HostNic[]	In	
<b>removed_labels</b>	NetworkLabel[]	In	
<b>removed_network_attachments</b>	NetworkAttachment[]	In	
<b>synchronized_network_attachments</b>	NetworkAttachment[]	In	A list of network attachments that will be synchronized.

#### 6.108.16.1. commit\_on\_success

Specifies whether to automatically save the configuration in the {hypervisor-name} upon completing the setup and re-establishing connectivity between the {hypervisor-name} and Red Hat Virtualization Manager, and without waiting for a separate `commitnetconfig` request. The default value is **false**, which means that the configuration will not be saved automatically.

#### 6.108.17. syncallnetworks POST

To synchronize all networks on the host, send a request like this:

-

```
POST /ovirt-engine/api/hosts/123/syncallnetworks
```

With a request body like this:

```
<action/>
```

Table 6.339. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the action should be performed asynchronously.

### 6.108.18. unregisteredstoragedomainsdiscover POST

Discovers the block Storage Domains which are candidates to be imported to the setup. For FCP no arguments are required.

Table 6.340. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the discovery should be performed asynchronously.
<b>iscsi</b>	IscsiDetails	In	
<b>storage_domains</b>	StorageDomain[]	Out	

### 6.108.19. update PUT

Update the host properties.

For example, to update a the kernel command line of a host send a request like this:

```
PUT /ovirt-engine/api/hosts/123
```

With request body like this:

```
<host>
  <os>
    <custom_kernel_cmdline>vfio_iommu_type1.allow_unsafe_interrupts=1 </custom_kernel_cmdline>
  </os>
</host>
```

Table 6.341. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>host</b>	Host	In/Out	

## 6.108.20. upgrade POST

Upgrades VDSM and selected software on the host.

Table 6.342. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the upgrade should be performed asynchronously.
<b>image</b>	String	In	This property is no longer relevant, since Vintage Node is no longer supported, and has been deprecated.
<b>reboot</b>	Boolean	In	Indicates if the host should be rebooted after the upgrade.
<b>timeout</b>	Integer	In	Upgrade timeout.

### 6.108.20.1. reboot

Indicates if the host should be rebooted after the upgrade. By default the host is rebooted.



#### NOTE

This parameter is ignored for {hypervisor-name}, which is always rebooted after the upgrade.

### 6.108.20.2. timeout

Upgrade timeout.

The maximum time to wait for upgrade to finish in minutes. Default value is specified by **ANSIBLE\_PLAYBOOK\_EXEC\_DEFAULT\_TIMEOUT** configuration option.

## 6.108.21. upgradecheck POST

Check if there are upgrades available for the host. If there are upgrades available an icon will be displayed next to host status icon in the Administration Portal. Audit log messages are also added to indicate the availability of upgrades. The upgrade can be started from the webadmin or by using the [upgrade](#) host action.

## 6.109. HOSTCPUUNITS

Table 6.343. Methods summary

Name	Summary
<b>list</b>	Returns the List of all host's CPUs with detailed information about the topology (socket, core) and with information about the current CPU pinning.

### 6.109.1. list GET

Returns the List of all host's CPUs with detailed information about the topology (socket, core) and with information about the current CPU pinning.

Table 6.344. Parameters summary

Name	Type	Direction	Summary
<b>cpu_units</b>	HostCpuUnit []	Out	
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

#### 6.109.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.110. HOSTDEVICE

A service to access a particular device of a host.

Table 6.345. Methods summary

Name	Summary
<b>get</b>	Retrieve information about a particular host's device.

### 6.110.1. get GET

Retrieve information about a particular host's device.

An example of getting a host device:

```
GET /ovirt-engine/api/hosts/123/devices/456
```

```
<host_device href="/ovirt-engine/api/hosts/123/devices/456" id="456">
  <name>usb_1_9_1_1_0</name>
  <capability>usb</capability>
</host href="/ovirt-engine/api/hosts/123" id="123"/>
```

```

<parent_device href="/ovirt-engine/api/hosts/123/devices/789" id="789">
  <name>usb_1_9_1</name>
</parent_device>
</host_device>

```

Table 6.346. Parameters summary

Name	Type	Direction	Summary
<b>device</b>	<a href="#">HostDevice</a>	Out	
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

### 6.110.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.111. HOSTDEVICES

A service to access host devices.

Table 6.347. Methods summary

Name	Summary
<b>list</b>	List the devices of a host.

### 6.111.1. list GET

List the devices of a host.

The order of the returned list of devices isn't guaranteed.

Table 6.348. Parameters summary

Name	Type	Direction	Summary
<b>devices</b>	<a href="#">HostDevice[ ]</a>	Out	
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of devices to return.

### 6.111.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.111.1.2. max

Sets the maximum number of devices to return. If not specified all the devices are returned.

## 6.112. HOSTHOOK

Table 6.349. Methods summary

Name	Summary
<b>get</b>	

### 6.112.1. get GET

Table 6.350. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>hook</b>	<a href="#">Hook</a>	Out	

#### 6.112.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.113. HOSTHOOKS

Table 6.351. Methods summary

Name	Summary
<b>list</b>	Returns the list of hooks configured for the host.

### 6.113.1. list GET

Returns the list of hooks configured for the host.

The order of the returned list of hooks is random.

Table 6.352. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>hooks</b>	<a href="#">Hook[]</a>	Out	

Name	Type	Direction	Summary
<b>max</b>	Integer	In	Sets the maximum number of hooks to return.

#### 6.113.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.113.1.2. max

Sets the maximum number of hooks to return. If not specified, all the hooks are returned.

## 6.114. HOSTNIC

A service to manage a network interface of a host.

Table 6.353. Methods summary

Name	Summary
<b>get</b>	
<b>updatevirtualfunctionsconfiguration</b>	The action updates virtual function configuration in case the current resource represents an SR-IOV enabled NIC.

#### 6.114.1. get GET

Table 6.354. Parameters summary

Name	Type	Direction	Summary
<b>all_content</b>	Boolean	In	Indicates if all of the attributes of the host network interface should be included in the response.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>nic</b>	HostNic	Out	

#### 6.114.1.1. all\_content

Indicates if all of the attributes of the host network interface should be included in the response.

By default the following attributes are excluded:

- **virtual\_functions\_configuration**

For example, to retrieve the complete representation network interface '456' of host '123':

```
GET /ovirt-engine/api/hosts/123/nics/456?all_content=true
```



## NOTE

These attributes are not included by default because retrieving them impacts performance. They are seldom used and require additional queries to the database. Use this parameter with caution and only when specifically required.

### 6.114.1.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.114.2. updatevirtualfunctionsconfiguration POST

The action updates virtual function configuration in case the current resource represents an SR-IOV enabled NIC. The input should be consisted of at least one of the following properties:

- **allNetworksAllowed**
- **numberOfVirtualFunctions**

Please see the **HostNicVirtualFunctionsConfiguration** type for the meaning of the properties.

Table 6.355. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>virtual_functions_configuration</b>	HostNicVirtualFunctionsConfiguration	In	

## 6.115. HOSTNICS

A service to manage the network interfaces of a host.

Table 6.356. Methods summary

Name	Summary
<b>list</b>	Returns the list of network interfaces of the host.

### 6.115.1. list GET

Returns the list of network interfaces of the host.

The order of the returned list of network interfaces isn't guaranteed.

**Table 6.357. Parameters summary**

Name	Type	Direction	Summary
<b>all_content</b>	Boolean	In	Indicates if all of the attributes of the host network interface should be included in the response.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of NICs to return.
<b>nics</b>	HostNic[]	Out	

### 6.115.1.1. all\_content

Indicates if all of the attributes of the host network interface should be included in the response.

By default the following attributes are excluded:

- **virtual\_functions\_configuration**

For example, to retrieve the complete representation of network interface '456' of host '123':

```
GET /ovirt-engine/api/hosts/123/nics?all_content=true
```



#### NOTE

These attributes are not included by default because retrieving them impacts performance. They are seldom used and require additional queries to the database. Use this parameter with caution and only when specifically required.

### 6.115.1.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.115.1.3. max

Sets the maximum number of NICs to return. If not specified all the NICs are returned.

## 6.116. HOSTNUMANODE

**Table 6.358. Methods summary**

Name	Summary
<b>get</b>	

## 6.116.1. get GET

Table 6.359. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>node</b>	<a href="#">NumaNode</a>	Out	

### 6.116.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.117. HOSTNUMANODES

Table 6.360. Methods summary

Name	Summary
<b>list</b>	Returns the list of NUMA nodes of the host.

### 6.117.1. list GET

Returns the list of NUMA nodes of the host.

The order of the returned list of NUMA nodes isn't guaranteed.

Table 6.361. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of nodes to return.
<b>nodes</b>	<a href="#">NumaNode[]</a>	Out	

### 6.117.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.117.1.2. max

Sets the maximum number of nodes to return. If not specified all the nodes are returned.

## 6.118. HOSTSTORAGE

A service to manage host storages.

**Table 6.362. Methods summary**

Name	Summary
<b>list</b>	Get list of storages.

### 6.118.1. list GET

Get list of storages.

```
GET /ovirt-engine/api/hosts/123/storage
```

The XML response you get will be like this one:

```
<host_storages>
  <host_storage id="123">
    ...
  </host_storage>
  ...
</host_storages>
```

The order of the returned list of storages isn't guaranteed.

**Table 6.363. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>report_status</b>	Boolean	In	Indicates if the status of the LUNs in the storage should be checked.
<b>storages</b>	HostStorage []	Out	Retrieved list of storages.

#### 6.118.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.118.1.2. report\_status

Indicates if the status of the LUNs in the storage should be checked. Checking the status of the LUN is an heavy weight operation and this data is not always needed by the user. This parameter will give the option to not perform the status check of the LUNs.

The default is **true** for backward compatibility.

Here an example with the LUN status :

```

<host_storage id="123">
  <logical_units>
    <logical_unit id="123">
      <lun_mapping>0</lun_mapping>
      <paths>1</paths>
      <product_id>lun0</product_id>
      <serial>123</serial>
      <size>10737418240</size>
      <status>used</status>
      <vendor_id>LIO-ORG</vendor_id>
      <volume_group_id>123</volume_group_id>
    </logical_unit>
  </logical_units>
  <type>iscsi</type>
</host id="123"/>
</host_storage>

```

Here an example without the LUN status :

```

<host_storage id="123">
  <logical_units>
    <logical_unit id="123">
      <lun_mapping>0</lun_mapping>
      <paths>1</paths>
      <product_id>lun0</product_id>
      <serial>123</serial>
      <size>10737418240</size>
      <vendor_id>LIO-ORG</vendor_id>
      <volume_group_id>123</volume_group_id>
    </logical_unit>
  </logical_units>
  <type>iscsi</type>
</host id="123"/>
</host_storage>

```

## 6.119. HOSTS

A service that manages hosts.

Table 6.364. Methods summary

Name	Summary
<b>add</b>	Creates a new host.
<b>list</b>	Get a list of all available hosts.

### 6.119.1. add POST

Creates a new host.

The host is created based on the attributes of the **host** parameter. The **name**, **address**, and **root\_password** properties are required.

For example, to add a host, send the following request:

```
POST /ovirt-engine/api/hosts
```

With the following request body:

```
<host>
  <name>myhost</name>
  <address>myhost.example.com</address>
  <root_password>myrootpassword</root_password>
</host>
```



#### NOTE

The **root\_password** element is only included in the client-provided initial representation and is not exposed in the representations returned from subsequent requests.



#### IMPORTANT

Since version 4.1.2 of the engine, when a host is newly added, the host's firewall definitions are overridden by default.

To add a hosted engine host, use the optional **deploy\_hosted\_engine** parameter:

```
POST /ovirt-engine/api/hosts?deploy_hosted_engine=true
```

If the cluster has a default external network provider that is supported for automatic deployment, the external network provider is deployed when adding the host. Only external network providers for OVN are supported for the automatic deployment. To deploy an external network provider other than the one defined in the clusters, overwrite the external network provider when adding hosts, by sending the following request:

```
POST /ovirt-engine/api/hosts
```

With a request body that contains a reference to the desired provider in the **external\_network\_provider\_configuration**:

```
<host>
  <name>myhost</name>
  <address>myhost.example.com</address>
  <root_password>123456</root_password>
  <external_network_provider_configurations>
    <external_network_provider_configuration>
      <external_network_provider name="ovirt-provider-ovn"/>
    </external_network_provider_configuration>
  </external_network_provider_configurations>
</host>
```

Table 6.365. Parameters summary

Name	Type	Direction	Summary
<b>activate</b>	Boolean	In	When set to <b>true</b> , this host will be activated after its installation completes.
<b>deploy_hosted_engine</b>	Boolean	In	When set to <b>true</b> , this host deploys the hosted engine components.
<b>host</b>	Host	In/Out	The host definition with which the new host is created is passed as a parameter, and the newly created host is returned.
<b>reboot</b>	Boolean	In	Indicates if the host should be rebooted after successful installation.
<b>undeploy_hosted_engine</b>	Boolean	In	When set to <b>true</b> , this host un-deploys the hosted engine components and does not function as part of the High Availability cluster.

#### 6.119.1.1. activate

When set to **true**, this host will be activated after its installation completes. When set to **false** the host will remain in **maintenance** status after its installation. Absence of this parameter will be interpreted as **true**, since the desired default behavior is activating the host after install.

#### 6.119.1.2. deploy\_hosted\_engine

When set to **true**, this host deploys the hosted engine components. A missing value is treated as **true**, i.e., deploy the hosted engine components. Omitting this parameter equals **false**, and the host performs no operation in the hosted engine area.

#### 6.119.1.3. reboot

Indicates if the host should be rebooted after successful installation. The default value is **true**.

#### 6.119.1.4. undeploy\_hosted\_engine

When set to **true**, this host un-deploys the hosted engine components and does not function as part of the High Availability cluster. A missing value is treated as **true**, i.e., un-deploy. Omitting this parameter equals **false** and the host performs no operation in the hosted engine area.

### 6.119.2. list GET

Get a list of all available hosts.

For example, to list the hosts send the following request:

```
GET /ovirt-engine/api/hosts
```

The response body will be similar to this:

```

<hosts>
  <host href="/ovirt-engine/api/hosts/123" id="123">
    ...
  </host>
  <host href="/ovirt-engine/api/hosts/456" id="456">
    ...
  </host>
  ...
</hosts>

```

The order of the returned list of hosts is guaranteed only if the **sortby** clause is included in the **search** parameter.

Table 6.366. Parameters summary

Name	Type	Direction	Summary
<b>all_content</b>	Boolean	In	Indicates if all of the attributes of the hosts should be included in the response.
<b>case_sensitive</b>	Boolean	In	Indicates if the search performed using the <b>search</b> parameter should be performed taking case into account.
<b>check_vms_in_affinity_closure</b>	Boolean	In	This parameter can be used with <b>migration_target_of</b> to get valid migration targets for the listed virtual machines and all other virtual machines that are in positive enforcing affinity with the listed virtual machines.
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>hosts</b>	Host[]	Out	
<b>max</b>	Integer	In	Sets the maximum number of hosts to return.
<b>migration_target_of</b>	String	In	Accepts a comma-separated list of virtual machine IDs and returns the hosts that these virtual machines can be migrated to.
<b>search</b>	String	In	A query string used to restrict the returned hosts.

### 6.119.2.1. all\_content

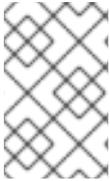
Indicates if all of the attributes of the hosts should be included in the response.

By default the following host attributes are excluded:

- **hosted\_engine**

For example, to retrieve the complete representation of the hosts:

```
GET /ovirt-engine/api/hosts?all_content=true
```

**NOTE**

These attributes are not included by default because retrieving them impacts performance. They are seldom used and require additional queries to the database. Use this parameter with caution and only when specifically required.

**6.119.2.2. case\_sensitive**

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

**6.119.2.3. check\_vms\_in\_affinity\_closure**

This parameter can be used with **migration\_target\_of** to get valid migration targets for the listed virtual machines and all other virtual machines that are in positive enforcing affinity with the listed virtual machines.

This is useful in case the virtual machines will be migrated together with others in positive affinity groups.

The default value is **false**.

```
GET /ovirt-engine/api/hosts?migration_target_of=123,456&check_vms_in_affinity_closure=true
```

**6.119.2.4. follow**

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

**6.119.2.5. max**

Sets the maximum number of hosts to return. If not specified all the hosts are returned.

**6.119.2.6. migration\_target\_of**

Accepts a comma-separated list of virtual machine IDs and returns the hosts that these virtual machines can be migrated to.

For example, to retrieve the list of hosts to which the virtual machine with ID 123 and the virtual machine with ID 456 can be migrated to, send the following request:

```
GET /ovirt-engine/api/hosts?migration_target_of=123,456
```

**6.120. ICON**

A service to manage an icon (read-only).

**Table 6.367. Methods summary**

Name	Summary
<b>get</b>	Get an icon.

### 6.120.1. get GET

Get an icon.

```
GET /ovirt-engine/api/icons/123
```

You will get a XML response like this one:

```
<icon id="123">
  <data>Some binary data here</data>
  <media_type>image/png</media_type>
</icon>
```

**Table 6.368. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>icon</b>	Icon	Out	Retrieved icon.

#### 6.120.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.121. ICONS

A service to manage icons.

**Table 6.369. Methods summary**

Name	Summary
<b>list</b>	Get a list of icons.

### 6.121.1. list GET

Get a list of icons.

```
GET /ovirt-engine/api/icons
```

You will get a XML response which is similar to this one:

```
<icons>
  <icon id="123">
    <data>...</data>
    <media_type>image/png</media_type>
  </icon>
  ...
</icons>
```

The order of the returned list of icons isn't guaranteed.

Table 6.370. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>icons</b>	Icon[]	Out	Retrieved list of icons.
<b>max</b>	Integer	In	Sets the maximum number of icons to return.

#### 6.121.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.121.1.2. max

Sets the maximum number of icons to return. If not specified all the icons are returned.

## 6.122. IMAGE

Table 6.371. Methods summary

Name	Summary
<b>get</b>	
<b>import</b>	Imports an image.

#### 6.122.1. get GET

Table 6.372. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
<b>image</b>	Image	Out	

### 6.122.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.122.2. import POST

Imports an image.

If the **import\_as\_template** parameter is **true** then the image will be imported as a template, otherwise it will be imported as a disk.

When imported as a template, the name of the template can be specified by the optional **template.name** parameter. If that parameter is not specified, then the name of the template will be automatically assigned by the engine as **GlanceTemplate-x** (where **x** will be seven random hexadecimal characters).

When imported as a disk, the name of the disk can be specified by the optional **disk.name** parameter. If that parameter is not specified, then the name of the disk will be automatically assigned by the engine as **GlanceDisk-x** (where **x** will be the seven hexadecimal characters of the image identifier).

It is recommended to always explicitly specify the template or disk name, to avoid these automatic names generated by the engine.

Table 6.373. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the import should be performed asynchronously.
<b>cluster</b>	Cluster	In	The cluster to which the image should be imported if the <b>import_as_template</b> parameter is set to <b>true</b> .
<b>disk</b>	Disk	In	The disk to import.
<b>import_as_template</b>	Boolean	In	Specifies if a template should be created from the imported disk.
<b>storage_domain</b>	StorageDomain	In	The storage domain to which the disk should be imported.
<b>template</b>	Template	In	The name of the template being created if the <b>import_as_template</b> parameter is set to <b>true</b> .

## 6.123. IMAGETRANSFER

This service provides a mechanism to control an image transfer. The client will have to create a transfer by using [add](#) of the [image transfers](#) service, stating the image to transfer data to/from.

After doing that, the transfer is managed by this service.

### Using oVirt's Python's SDK:

Uploading a **disk** with id **123** (on a random host in the data center):

```
transfers_service = system_service.image_transfers_service()
transfer = transfers_service.add(
    types.ImageTransfer(
        disk=types.Disk(
            id='123'
        )
    )
)
```

Uploading a **disk** with id **123** on **host** id **456**:

```
transfers_service = system_service.image_transfers_service()
transfer = transfers_service.add(
    types.ImageTransfer(
        disk=types.Disk(
            id='123'
        ),
        host=types.Host(
            id='456'
        )
    )
)
```

If the user wishes to download a disk rather than upload, he/she should specify **download** as the [direction](#) attribute of the transfer. This will grant a read permission from the image, instead of a write permission.

E.g:

```
transfers_service = system_service.image_transfers_service()
transfer = transfers_service.add(
    types.ImageTransfer(
        disk=types.Disk(
            id='123'
        ),
        direction=types.ImageTransferDirection.DOWNLOAD
    )
)
```

Transfers have phases, which govern the flow of the upload/download. A client implementing such a flow should poll/check the transfer's phase and act accordingly. All the possible phases can be found in [ImageTransferPhase](#).

After adding a new transfer, its phase will be [initializing](#). The client will have to poll on the transfer's phase until it changes. When the phase becomes [transferring](#), the session is ready to start the transfer.

For example:

```
transfer_service = transfers_service.image_transfer_service(transfer.id)
while transfer.phase == types.ImageTransferPhase.INITIALIZING:
    time.sleep(3)
    transfer = transfer_service.get()
```

At that stage, if the phase of the transfer is `paused_system`, the session was not successfully established. This can happen if `ovirt-imageio` is not running in the selected host.

**Table 6.374. Methods summary**

Name	Summary
<b>cancel</b>	Cancel the image transfer session.
<b>extend</b>	Extend the image transfer session.
<b>finalize</b>	After finishing to transfer the data, finalize the transfer.
<b>get</b>	Get the image transfer entity.
<b>pause</b>	Pause the image transfer session.
<b>resume</b>	Resume the image transfer session.

### 6.123.1. cancel POST

Cancel the image transfer session. This terminates the transfer operation and removes the partial image.

### 6.123.2. extend POST

Extend the image transfer session.

### 6.123.3. finalize POST

After finishing to transfer the data, finalize the transfer.

This will make sure that the data being transferred is valid and fits the image entity that was targeted in the transfer. Specifically, will verify that if the image entity is a QCOW disk, the data uploaded is indeed a QCOW file, and that the image doesn't have a backing file.

### 6.123.4. get GET

Get the image transfer entity.

**Table 6.375. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>image_transfer</b>	ImageTransfer	Out	

#### 6.123.4.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.123.5. pause POST

Pause the image transfer session.

#### 6.123.6. resume POST

Resume the image transfer session. The client will need to poll the transfer's phase until it is different than **resuming**. For example:

```
transfer_service = transfers_service.image_transfer_service(transfer.id)
transfer_service.resume()
transfer = transfer_service.get()

while transfer.phase == types.ImageTransferPhase.RESUMING:
    time.sleep(1)
    transfer = transfer_service.get()
```

## 6.124. IMAGETRANSFERS

This service manages image transfers, for performing Image I/O API in Red Hat Virtualization. Please refer to [image transfer](#) for further documentation.

**Table 6.376. Methods summary**

Name	Summary
<b>add</b>	Add a new image transfer.
<b>list</b>	Retrieves the list of image transfers that are currently being performed.

#### 6.124.1. add POST

Add a new image transfer. An image, disk or disk snapshot needs to be specified in order to make a new transfer.



## IMPORTANT

The **image** attribute is deprecated since version 4.2 of the engine. Use the **disk** or **snapshot** attributes instead.

### Creating a new image transfer for downloading or uploading a **disk**:

To create an image transfer to download or upload a disk with id **123**, send the following request:

```
POST /ovirt-engine/api/imagetransfers
```

With a request body like this:

```
<image_transfer>
  <disk id="123"/>
  <direction>upload|download</direction>
</image_transfer>
```

### Creating a new image transfer for downloading or uploading a **disk\_snapshot**:

To create an image transfer to download or upload a **disk\_snapshot** with id **456**, send the following request:

```
POST /ovirt-engine/api/imagetransfers
```

With a request body like this:

```
<image_transfer>
  <snapshot id="456"/>
  <direction>download|upload</direction>
</image_transfer>
```

Table 6.377. Parameters summary

Name	Type	Direction	Summary
<b>image_transfer</b>	ImageTransfer	In/Out	The image transfer to add.

### 6.124.2. list GET

Retrieves the list of image transfers that are currently being performed.

The order of the returned list of image transfers is not guaranteed.

Table 6.378. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
<b>image_transfer</b>	ImageTransfer[]	Out	A list of image transfers that are currently being performed.

#### 6.124.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.125. IMAGES

Manages the set of images available in an storage domain or in an OpenStack image provider.

Table 6.379. Methods summary

Name	Summary
<b>list</b>	Returns the list of images available in the storage domain or provider.

### 6.125.1. list GET

Returns the list of images available in the storage domain or provider.

The order of the returned list of images isn't guaranteed.

Table 6.380. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>images</b>	Image[]	Out	
<b>max</b>	Integer	In	Sets the maximum number of images to return.

#### 6.125.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.125.1.2. max

Sets the maximum number of images to return. If not specified all the images are returned.

## 6.126. INSTANCETYPE

Table 6.381. Methods summary

Name	Summary
<b>get</b>	Get a specific instance type and it's attributes.
<b>remove</b>	Removes a specific instance type from the system.
<b>update</b>	Update a specific instance type and it's attributes.

### 6.126.1. get GET

Get a specific instance type and it's attributes.

GET /ovirt-engine/api/instancetypees/123

Table 6.382. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>instance_type</b>	InstanceType	Out	

#### 6.126.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.126.2. remove DELETE

Removes a specific instance type from the system.

If a virtual machine was created using an instance type X after removal of the instance type the virtual machine's instance type will be set to **custom**.

DELETE /ovirt-engine/api/instancetypees/123

Table 6.383. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

### 6.126.3. update PUT

Update a specific instance type and it's attributes.

All the attributes are editable after creation. If a virtual machine was created using an instance type X and some configuration in instance type X was updated, the virtual machine's configuration will be updated automatically by the engine.

PUT /ovirt-engine/api/instancetypees/123

For example, to update the memory of instance type **123** to 1 GiB and set the cpu topology to 2 sockets and 1 core, send a request like this:

```
<instance_type>
  <memory>1073741824</memory>
  <cpu>
    <topology>
      <cores>1</cores>
      <sockets>2</sockets>
      <threads>1</threads>
    </topology>
  </cpu>
</instance_type>
```

Table 6.384. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>instance_type</b>	InstanceType	In/Out	

## 6.127. INSTANCETYPEGRAPHICSCONSOLE

Table 6.385. Methods summary

Name	Summary
<b>get</b>	Gets graphics console configuration of the instance type.
<b>remove</b>	Remove the graphics console from the instance type.

### 6.127.1. get GET

Gets graphics console configuration of the instance type.

Table 6.386. Parameters summary

Name	Type	Direction	Summary
<b>console</b>	GraphicsConsole	Out	The information about the graphics console of the instance type.

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

### 6.127.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.127.2. remove DELETE

Remove the graphics console from the instance type.

Table 6.387. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

## 6.128. INSTANCETYPEGRAPHICSCONSOLES

Table 6.388. Methods summary

Name	Summary
<b>add</b>	Add new graphics console to the instance type.
<b>list</b>	Lists all the configured graphics consoles of the instance type.

### 6.128.1. add POST

Add new graphics console to the instance type.

Table 6.389. Parameters summary

Name	Type	Direction	Summary
<b>console</b>	GraphicsConsole	In/Out	

### 6.128.2. list GET

Lists all the configured graphics consoles of the instance type.

The order of the returned list of graphics consoles isn't guaranteed.

Table 6.390. Parameters summary

Name	Type	Direction	Summary
<b>consoles</b>	<a href="#">GraphicsConsole[]</a>	Out	The list of graphics consoles of the instance type.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of consoles to return.

### 6.128.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.128.2.2. max

Sets the maximum number of consoles to return. If not specified all the consoles are returned.

## 6.129. INSTANCETYPENIC

Table 6.391. Methods summary

Name	Summary
<b>get</b>	Gets network interface configuration of the instance type.
<b>remove</b>	Remove the network interface from the instance type.
<b>update</b>	Updates the network interface configuration of the instance type.

### 6.129.1. get GET

Gets network interface configuration of the instance type.

Table 6.392. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>nic</b>	<a href="#">Nic</a>	Out	

#### 6.129.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.129.2. remove DELETE

Remove the network interface from the instance type.

**Table 6.393. Parameters summary**

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

### 6.129.3. update PUT

Updates the network interface configuration of the instance type.

**Table 6.394. Parameters summary**

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>nic</b>	Nic	In/Out	

## 6.130. INSTANCETYPEENICS

**Table 6.395. Methods summary**

Name	Summary
<b>add</b>	Add new network interface to the instance type.
<b>list</b>	Lists all the configured network interface of the instance type.

### 6.130.1. add POST

Add new network interface to the instance type.

**Table 6.396. Parameters summary**

Name	Type	Direction	Summary
<b>nic</b>	Nic	In/Out	

### 6.130.2. list GET

Lists all the configured network interface of the instance type.

The order of the returned list of network interfaces isn't guaranteed.

**Table 6.397. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of NICs to return.
<b>nics</b>	<a href="#">Nic[]</a>	Out	
<b>search</b>	<a href="#">String</a>	In	A query string used to restrict the returned templates.

### 6.130.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.130.2.2. max

Sets the maximum number of NICs to return. If not specified all the NICs are returned.

## 6.131. INSTANCETYPEWATCHDOG

Table 6.398. Methods summary

Name	Summary
<b>get</b>	Gets watchdog configuration of the instance type.
<b>remove</b>	Remove a watchdog from the instance type.
<b>update</b>	Updates the watchdog configuration of the instance type.

### 6.131.1. get GET

Gets watchdog configuration of the instance type.

Table 6.399. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>watchdog</b>	<a href="#">Watchdog</a>	Out	

### 6.131.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.131.2. remove DELETE

Remove a watchdog from the instance type.

Table 6.400. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

### 6.131.3. update PUT

Updates the watchdog configuration of the instance type.

Table 6.401. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>watchdog</b>	Watchdog	In/Out	

## 6.132. INSTANCETYPEWATCHDOGS

Table 6.402. Methods summary

Name	Summary
<b>add</b>	Add new watchdog to the instance type.
<b>list</b>	Lists all the configured watchdogs of the instance type.

### 6.132.1. add POST

Add new watchdog to the instance type.

Table 6.403. Parameters summary

Name	Type	Direction	Summary
<b>watchdog</b>	Watchdog	In/Out	

### 6.132.2. list GET

Lists all the configured watchdogs of the instance type.

The order of the returned list of watchdogs isn't guaranteed.

Table 6.404. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of watchdogs to return.
<b>search</b>	String	In	A query string used to restrict the returned templates.
<b>watchdogs</b>	Watchdog[]	Out	

#### 6.132.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.132.2.2. max

Sets the maximum number of watchdogs to return. If not specified all the watchdogs are returned.

## 6.133. INSTANCETYPES

Table 6.405. Methods summary

Name	Summary
<b>add</b>	Creates a new instance type.
<b>list</b>	Lists all existing instance types in the system.

### 6.133.1. add POST

Creates a new instance type.

This requires only a name attribute and can include all hardware configurations of the virtual machine.

```
POST /ovirt-engine/api/instancetypees
```

With a request body like this:

```
<instance_type>
  <name>myinstancetype</name>
</template>
```

Creating an instance type with all hardware configurations with a request body like this:

```
<instance_type>
```

```

<name>myinstancetype</name>
<console>
  <enabled>true</enabled>
</console>
<cpu>
  <topology>
    <cores>2</cores>
    <sockets>2</sockets>
    <threads>1</threads>
  </topology>
</cpu>
<custom_cpu_model>AMD Opteron_G2</custom_cpu_model>
<custom_emulated_machine>q35</custom_emulated_machine>
<display>
  <monitors>1</monitors>
  <single_qxl_pci>true</single_qxl_pci>
  <smartcard_enabled>true</smartcard_enabled>
  <type>spice</type>
</display>
<high_availability>
  <enabled>true</enabled>
  <priority>1</priority>
</high_availability>
<io>
  <threads>2</threads>
</io>
<memory>4294967296</memory>
<memory_policy>
  <ballooning>true</ballooning>
  <guaranteed>268435456</guaranteed>
</memory_policy>
<migration>
  <auto_converge>inherit</auto_converge>
  <compressed>inherit</compressed>
  <policy id="00000000-0000-0000-0000-000000000000"/>
</migration>
<migration_downtime>2</migration_downtime>
<os>
  <boot>
    <devices>
      <device>hd</device>
    </devices>
  </boot>
</os>
<rng_device>
  <rate>
    <bytes>200</bytes>
    <period>2</period>
  </rate>
  <source>urandom</source>
</rng_device>
<soundcard_enabled>true</soundcard_enabled>
<usb>
  <enabled>true</enabled>
  <type>native</type>
</usb>

```

```

<virtio_scsi>
  <enabled>true</enabled>
</virtio_scsi>
</instance_type>

```

Table 6.406. Parameters summary

Name	Type	Direction	Summary
<b>instance_type</b>	InstanceType	In/Out	

### 6.133.2. list GET

Lists all existing instance types in the system.

The order of the returned list of instance types isn't guaranteed.

Table 6.407. Parameters summary

Name	Type	Direction	Summary
<b>case_sensitive</b>	Boolean	In	Indicates if the search performed using the <b>search</b> parameter should be performed taking case into account.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>instance_type</b>	InstanceType[]	Out	
<b>max</b>	Integer	In	Sets the maximum number of instance types to return.
<b>search</b>	String	In	A query string used to restrict the returned templates.

#### 6.133.2.1. case\_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

#### 6.133.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.133.2.3. max

Sets the maximum number of instance types to return. If not specified all the instance types are returned.

## 6.134. ISCSIBOND

Table 6.408. Methods summary

Name	Summary
<b>get</b>	
<b>remove</b>	Removes of an existing iSCSI bond.
<b>update</b>	Updates an iSCSI bond.

### 6.134.1. get GET

Table 6.409. Parameters summary

Name	Type	Direction	Summary
<b>bond</b>	<a href="#">iscsiBond</a>	Out	The iSCSI bond.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

#### 6.134.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.134.2. remove DELETE

Removes of an existing iSCSI bond.

For example, to remove the iSCSI bond **456** send a request like this:

```
DELETE /ovirt-engine/api/datacenters/123/iscsibonds/456
```

Table 6.410. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the remove should be performed asynchronously.

### 6.134.3. update PUT

Updates an iSCSI bond.

Updating of an iSCSI bond can be done on the **name** and the **description** attributes only. For example, to update the iSCSI bond **456** of data center **123**, send a request like this:

```
PUT /ovirt-engine/api/datacenters/123/iscsibonds/1234
```

The request body should look like this:

```
<iscsi_bond>
  <name>mybond</name>
  <description>My iSCSI bond</description>
</iscsi_bond>
```

Table 6.411. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>bond</b>	IscsiBond	In/Out	The iSCSI bond to update.

## 6.135. ISCSIBONDS

Table 6.412. Methods summary

Name	Summary
<b>add</b>	Create a new iSCSI bond on a data center.
<b>list</b>	Returns the list of iSCSI bonds configured in the data center.

### 6.135.1. add POST

Create a new iSCSI bond on a data center.

For example, to create a new iSCSI bond on data center **123** using storage connections **456** and **789**, send a request like this:

```
POST /ovirt-engine/api/datacenters/123/iscsibonds
```

The request body should look like this:

```
<iscsi_bond>
  <name>mybond</name>
  <storage_connections>
    <storage_connection id="456"/>
    <storage_connection id="789"/>
  </storage_connections>
  <networks>
```

```

<network id="abc"/>
</networks>
</iscsi_bond>

```

Table 6.413. Parameters summary

Name	Type	Direction	Summary
<b>bond</b>	<code>IscsiBond</code>	In/Out	

### 6.135.2. list GET

Returns the list of iSCSI bonds configured in the data center.

The order of the returned list of iSCSI bonds isn't guaranteed.

Table 6.414. Parameters summary

Name	Type	Direction	Summary
<b>bonds</b>	<code>IscsiBond[]</code>	Out	
<b>follow</b>	<code>String</code>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<code>Integer</code>	In	Sets the maximum number of bonds to return.

#### 6.135.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.135.2.2. max

Sets the maximum number of bonds to return. If not specified all the bonds are returned.

## 6.136. JOB

A service to manage a job.

Table 6.415. Methods summary

Name	Summary
<b>clear</b>	Set an external job execution to be cleared by the system.
<b>end</b>	Marks an external job execution as ended.
<b>get</b>	Retrieves a job.

### 6.136.1. clear POST

Set an external job execution to be cleared by the system.

For example, to set a job with identifier **123** send the following request:

```
POST /ovirt-engine/api/jobs/clear
```

With the following request body:

```
<action/>
```

Table 6.416. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the action should be performed asynchronously.

### 6.136.2. end POST

Marks an external job execution as ended.

For example, to terminate a job with identifier **123** send the following request:

```
POST /ovirt-engine/api/jobs/end
```

With the following request body:

```
<action>
  <force>true</force>
  <status>finished</status>
</action>
```

Table 6.417. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the action should be performed asynchronously.
<b>force</b>	Boolean	In	Indicates if the job should be forcibly terminated.
<b>succeeded</b>	Boolean	In	Indicates if the job should be marked as successfully finished or as failed.

#### 6.136.2.1. succeeded

Indicates if the job should be marked as successfully finished or as failed.

This parameter is optional, and the default value is **true**.

### 6.136.3. get GET

Retrieves a job.

```
GET /ovirt-engine/api/jobs/123
```

You will receive response in XML like this one:

```
<job href="/ovirt-engine/api/jobs/123" id="123">
  <actions>
    <link href="/ovirt-engine/api/jobs/123/clear" rel="clear"/>
    <link href="/ovirt-engine/api/jobs/123/end" rel="end"/>
  </actions>
  <description>Adding Disk</description>
  <link href="/ovirt-engine/api/jobs/123/steps" rel="steps"/>
  <auto_cleared>true</auto_cleared>
  <end_time>2016-12-12T23:07:29.758+02:00</end_time>
  <external>false</external>
  <last_updated>2016-12-12T23:07:29.758+02:00</last_updated>
  <start_time>2016-12-12T23:07:26.593+02:00</start_time>
  <status>failed</status>
  <owner href="/ovirt-engine/api/users/456" id="456"/>
</job>
```

Table 6.418. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>job</b>	Job	Out	Retrieves the representation of the job.

#### 6.136.3.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.137. JOBS

A service to manage jobs.

Table 6.419. Methods summary

Name	Summary
<b>add</b>	Add an external job.
<b>list</b>	Retrieves the representation of the jobs.

#### 6.137.1. add POST

Add an external job.

For example, to add a job with the following request:

```
POST /ovirt-engine/api/jobs
```

With the following request body:

```
<job>
  <description>Doing some work</description>
  <auto_cleared>true</auto_cleared>
</job>
```

The response should look like:

```
<job href="/ovirt-engine/api/jobs/123" id="123">
  <actions>
    <link href="/ovirt-engine/api/jobs/123/clear" rel="clear"/>
    <link href="/ovirt-engine/api/jobs/123/end" rel="end"/>
  </actions>
  <description>Doing some work</description>
  <link href="/ovirt-engine/api/jobs/123/steps" rel="steps"/>
  <auto_cleared>true</auto_cleared>
  <external>true</external>
  <last_updated>2016-12-13T02:15:42.130+02:00</last_updated>
  <start_time>2016-12-13T02:15:42.130+02:00</start_time>
  <status>started</status>
  <owner href="/ovirt-engine/api/users/456" id="456"/>
</job>
```

Table 6.420. Parameters summary

Name	Type	Direction	Summary
<b>job</b>	Job	In/Out	Job that will be added.

### 6.137.2. list GET

Retrieves the representation of the jobs.

```
GET /ovirt-engine/api/jobs
```

You will receive response in XML like this one:

```
<jobs>
  <job href="/ovirt-engine/api/jobs/123" id="123">
    <actions>
      <link href="/ovirt-engine/api/jobs/123/clear" rel="clear"/>
      <link href="/ovirt-engine/api/jobs/123/end" rel="end"/>
    </actions>
    <description>Adding Disk</description>
    <link href="/ovirt-engine/api/jobs/123/steps" rel="steps"/>
  </job>
</jobs>
```

```

<auto_cleared>true</auto_cleared>
<end_time>2016-12-12T23:07:29.758+02:00</end_time>
<external>false</external>
<last_updated>2016-12-12T23:07:29.758+02:00</last_updated>
<start_time>2016-12-12T23:07:26.593+02:00</start_time>
<status>failed</status>
<owner href="/ovirt-engine/api/users/456" id="456"/>
</job>
...
</jobs>

```

The order of the returned list of jobs isn't guaranteed.

Table 6.421. Parameters summary

Name	Type	Direction	Summary
<b>case_sensitive</b>	Boolean	In	Indicates if the search performed using the <b>search</b> parameter should be performed taking case into account.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>jobs</b>	Job[]	Out	A representation of jobs.
<b>max</b>	Integer	In	Sets the maximum number of jobs to return.
<b>search</b>	String	In	A query string used to restrict the returned jobs.

#### 6.137.2.1. case\_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

#### 6.137.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.137.2.3. max

Sets the maximum number of jobs to return. If not specified all the jobs are returned.

## 6.138. KATELLOERRATA

A service to manage Katello errata. The information is retrieved from Katello.

Table 6.422. Methods summary

Name	Summary
<b>list</b>	Retrieves the representation of the Katello errata.

### 6.138.1. list GET

Retrieves the representation of the Katello errata.

GET /ovirt-engine/api/katelloerrata

You will receive response in XML like this one:

```
<katello_errata>
  <katello_erratum href="/ovirt-engine/api/katelloerrata/123" id="123">
    <name>RHBA-2013:XYZ</name>
    <description>The description of the erratum</description>
    <title>some bug fix update</title>
    <type>bugfix</type>
    <issued>2013-11-20T02:00:00.000+02:00</issued>
    <solution>Few guidelines regarding the solution</solution>
    <summary>Updated packages that fix one bug are now available for XYZ</summary>
    <packages>
      <package>
        <name>libipa_hbac-1.9.2-82.11.el6_4.i686</name>
      </package>
      ...
    </packages>
  </katello_erratum>
  ...
</katello_errata>
```

The order of the returned list of erratum isn't guaranteed.

**Table 6.423. Parameters summary**

Name	Type	Direction	Summary
<b>errata</b>	KatelloErratum[]	Out	A representation of Katello errata.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of errata to return.

#### 6.138.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.138.1.2. max

Sets the maximum number of errata to return. If not specified all the errata are returned.

## 6.139. KATELLOERRATUM

A service to manage a Katello erratum.

Table 6.424. Methods summary

Name	Summary
<b>get</b>	Retrieves a Katello erratum.

### 6.139.1. get GET

Retrieves a Katello erratum.

```
GET /ovirt-engine/api/katelloerrata/123
```

You will receive response in XML like this one:

```
<katello_erratum href="/ovirt-engine/api/katelloerrata/123" id="123">
  <name>RHBA-2013:XYZ</name>
  <description>The description of the erratum</description>
  <title>some bug fix update</title>
  <type>bugfix</type>
  <issued>2013-11-20T02:00:00.000+02:00</issued>
  <solution>Few guidelines regarding the solution</solution>
  <summary>Updated packages that fix one bug are now available for XYZ</summary>
  <packages>
    <package>
      <name>libipa_hbac-1.9.2-82.11.el6_4.i686</name>
    </package>
    ...
  </packages>
</katello_erratum>
```

Table 6.425. Parameters summary

Name	Type	Direction	Summary
<b>erratum</b>	<a href="#">KatelloErratum</a>	Out	Retrieves the representation of the Katello erratum.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

#### 6.139.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.140. LINKLAYERDISCOVERYPROTOCOL

A service to fetch information elements received by Link Layer Discovery Protocol (LLDP).

Table 6.426. Methods summary

Name	Summary
<b>list</b>	Fetches information elements received by LLDP.

### 6.140.1. list GET

Fetches information elements received by LLDP.

Table 6.427. Parameters summary

Name	Type	Direction	Summary
<b>elements</b>	<a href="#">LinkLayerDiscoveryProtocolElement[]</a>	Out	Retrieves a list of information elements received by LLDP.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

#### 6.140.1.1. elements

Retrieves a list of information elements received by LLDP.

For example, to retrieve the information elements received on the NIC **321** on host **123**, send a request like this:

```
GET ovirt-engine/api/hosts/123/nics/321/linklayerdiscoveryprotocolelements
```

It will return a response like this:

```
<link_layer_discovery_protocol_elements>
...
<link_layer_discovery_protocol_element>
  <name>Port Description</name>
  <properties>
    <property>
      <name>port description</name>
      <value>Summit300-48-Port 1001</value>
    </property>
  </properties>
  <type>4</type>
</link_layer_discovery_protocol_element>
...
<link_layer_discovery_protocol_elements>
```

#### 6.140.1.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.141. MACPOOL

Table 6.428. Methods summary

Name	Summary
<b>get</b>	
<b>remove</b>	Removes a MAC address pool.
<b>update</b>	Updates a MAC address pool.

### 6.141.1. get GET

Table 6.429. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>pool</b>	<a href="#">MacPool</a>	Out	

#### 6.141.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.141.2. remove DELETE

Removes a MAC address pool.

For example, to remove the MAC address pool having id **123** send a request like this:

```
DELETE /ovirt-engine/api/macpools/123
```

Table 6.430. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the remove should be performed asynchronously.

### 6.141.3. update PUT

Updates a MAC address pool.

The **name**, **description**, **allow\_duplicates**, and **ranges** attributes can be updated.

For example, to update the MAC address pool of id **123** send a request like this:

```
PUT /ovirt-engine/api/macpools/123
```

With a request body like this:

```
<mac_pool>
  <name>UpdatedMACPool</name>
  <description>An updated MAC address pool</description>
  <allow_duplicates>>false</allow_duplicates>
  <ranges>
    <range>
      <from>00:1A:4A:16:01:51</from>
      <to>00:1A:4A:16:01:e6</to>
    </range>
    <range>
      <from>02:1A:4A:01:00:00</from>
      <to>02:1A:4A:FF:FF:FF</to>
    </range>
  </ranges>
</mac_pool>
```

Table 6.431. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>pool</b>	MacPool	In/Out	

## 6.142. MACPOOLS

Table 6.432. Methods summary

Name	Summary
<b>add</b>	Creates a new MAC address pool.
<b>list</b>	Return the list of MAC address pools of the system.

### 6.142.1. add POST

Creates a new MAC address pool.

Creation of a MAC address pool requires values for the **name** and **ranges** attributes.

For example, to create MAC address pool send a request like this:

**POST /ovirt-engine/api/macpools**

With a request body like this:

```
<mac_pool>
  <name>MACPool</name>
  <description>A MAC address pool</description>
  <allow_duplicates>true</allow_duplicates>
  <default_pool>>false</default_pool>
  <ranges>
    <range>
      <from>00:1A:4A:16:01:51</from>
      <to>00:1A:4A:16:01:e6</to>
    </range>
  </ranges>
</mac_pool>
```

Table 6.433. Parameters summary

Name	Type	Direction	Summary
<b>pool</b>	MacPool	In/Out	

### 6.142.2. list GET

Return the list of MAC address pools of the system.

The returned list of MAC address pools isn't guaranteed.

Table 6.434. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of pools to return.
<b>pools</b>	MacPool[]	Out	

#### 6.142.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.142.2.2. max

Sets the maximum number of pools to return. If not specified all the pools are returned.

## 6.143. MEASURABLE

## 6.144. MOVEABLE

Table 6.435. Methods summary

Name	Summary
<b>move</b>	

### 6.144.1. move POST

Table 6.436. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the move should be performed asynchronously.

## 6.145. NETWORK

A service managing a network

Table 6.437. Methods summary

Name	Summary
<b>get</b>	Gets a logical network.
<b>remove</b>	Removes a logical network, or the association of a logical network to a data center.
<b>update</b>	Updates a logical network.

### 6.145.1. get GET

Gets a logical network.

For example:

```
GET /ovirt-engine/api/networks/123
```

Will respond:

```
<network href="/ovirt-engine/api/networks/123" id="123">
  <name>ovirtmgmt</name>
  <description>Default Management Network</description>
  <link href="/ovirt-engine/api/networks/123/permissions" rel="permissions"/>
  <link href="/ovirt-engine/api/networks/123/vnicprofiles" rel="vnicprofiles"/>
  <link href="/ovirt-engine/api/networks/123/networklabels" rel="networklabels"/>
  <mtu>0</mtu>
  <stp>>false</stp>
```

```

<usages>
  <usage>vm</usage>
</usages>
<data_center href="/ovirt-engine/api/datacenters/456" id="456"/>
</network>

```

Table 6.438. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>network</b>	Network	Out	

### 6.145.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.145.2. remove DELETE

Removes a logical network, or the association of a logical network to a data center.

For example, to remove the logical network **123** send a request like this:

```
DELETE /ovirt-engine/api/networks/123
```

Each network is bound exactly to one data center. So if we disassociate network with data center it has the same result as if we would just remove that network. However it might be more specific to say we're removing network **456** of data center **123**.

For example, to remove the association of network **456** to data center **123** send a request like this:

```
DELETE /ovirt-engine/api/datacenters/123/networks/456
```



#### NOTE

To remove an external logical network, the network has to be removed directly from its provider by [OpenStack Networking API](#). The entity representing the external network inside Red Hat Virtualization is removed automatically, if **auto\_sync** is enabled for the provider, otherwise the entity has to be removed using this method.

Table 6.439. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

### 6.145.3. update PUT

Updates a logical network.

The **name**, **description**, **ip**, **vlan**, **stp** and **display** attributes can be updated.

For example, to update the description of the logical network **123** send a request like this:

```
PUT /ovirt-engine/api/networks/123
```

With a request body like this:

```
<network>
  <description>My updated description</description>
</network>
```

The maximum transmission unit of a network is set using a PUT request to specify the integer value of the **mtu** attribute.

For example, to set the maximum transmission unit send a request like this:

```
PUT /ovirt-engine/api/datacenters/123/networks/456
```

With a request body like this:

```
<network>
  <mtu>1500</mtu>
</network>
```



#### NOTE

Updating external networks is not propagated to the provider.

Table 6.440. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>network</b>	Network	In/Out	

## 6.146. NETWORKATTACHMENT

Table 6.441. Methods summary

Name	Summary
<b>get</b>	
<b>remove</b>	

Name	Summary
<b>update</b>	Update the specified network attachment on the host.

### 6.146.1. get GET

Table 6.442. Parameters summary

Name	Type	Direction	Summary
<b>attachment</b>	<a href="#">NetworkAttachment</a>	Out	
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

#### 6.146.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.146.2. remove DELETE

Table 6.443. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the remove should be performed asynchronously.

### 6.146.3. update PUT

Update the specified network attachment on the host.

Table 6.444. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the update should be performed asynchronously.
<b>attachment</b>	<a href="#">NetworkAttachment</a>	In/Out	

## 6.147. NETWORKATTACHMENTS

Manages the set of network attachments of a host or host NIC.

Table 6.445. Methods summary

Name	Summary
<b>add</b>	Add a new network attachment to the network interface.
<b>list</b>	Returns the list of network attachments of the host or host NIC.

### 6.147.1. add POST

Add a new network attachment to the network interface.

Table 6.446. Parameters summary

Name	Type	Direction	Summary
<b>attachment</b>	<a href="#">NetworkAttachment</a>	In/Out	

### 6.147.2. list GET

Returns the list of network attachments of the host or host NIC.

The order of the returned list of network attachments isn't guaranteed.

Table 6.447. Parameters summary

Name	Type	Direction	Summary
<b>attachments</b>	<a href="#">NetworkAttachment[]</a>	Out	
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of attachments to return.

#### 6.147.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.147.2.2. max

Sets the maximum number of attachments to return. If not specified all the attachments are returned.

## 6.148. NETWORKFILTER

Manages a network filter.

```
<network_filter id="00000019-0019-0019-0019-00000000026b">
  <name>example-network-filter-b</name>
  <version>
    <major>4</major>
    <minor>0</minor>
    <build>-1</build>
    <revision>-1</revision>
  </version>
</network_filter>
```

Please note that version is referring to the minimal support version for the specific filter.

**Table 6.448. Methods summary**

Name	Summary
<b>get</b>	Retrieves a representation of the network filter.

### 6.148.1. get GET

Retrieves a representation of the network filter.

**Table 6.449. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>network_filter</b>	<a href="#">NetworkFilter</a>	Out	

#### 6.148.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.149. NETWORKFILTERS

Represents a readonly network filters sub-collection.

The network filter enables to filter packets send to/from the VM's nic according to defined rules. For more information please refer to [NetworkFilter](#) service documentation

Network filters are supported in different versions, starting from version 3.0.

A network filter is defined for each vnic profile.

A vnic profile is defined for a specific network.

A network can be assigned to several different clusters. In the future, each network will be defined in cluster level.

Currently, each network is being defined at data center level. Potential network filters for each network are determined by the network's data center compatibility version  $V$ .  $V$  must be  $\geq$  the network filter version in order to configure this network filter for a specific network. Please note, that if a network is assigned to cluster with a version supporting a network filter, the filter may not be available due to the data center version being smaller than the network filter's version.

Example of listing all of the supported network filters for a specific cluster:

```
GET http://localhost:8080/ovirt-engine/api/clusters/{cluster:id}/networkfilters
```

Output:

```
<network_filters>
  <network_filter id="00000019-0019-0019-0019-00000000026c">
    <name>example-network-filter-a</name>
    <version>
      <major>4</major>
      <minor>0</minor>
      <build>-1</build>
      <revision>-1</revision>
    </version>
  </network_filter>
  <network_filter id="00000019-0019-0019-0019-00000000026b">
    <name>example-network-filter-b</name>
    <version>
      <major>4</major>
      <minor>0</minor>
      <build>-1</build>
      <revision>-1</revision>
    </version>
  </network_filter>
  <network_filter id="00000019-0019-0019-0019-00000000026a">
    <name>example-network-filter-a</name>
    <version>
      <major>3</major>
      <minor>0</minor>
      <build>-1</build>
      <revision>-1</revision>
    </version>
  </network_filter>
</network_filters>
```

Table 6.450. Methods summary

Name	Summary
<b>list</b>	Retrieves the representations of the network filters.

### 6.149.1. list GET

Retrieves the representations of the network filters.

The order of the returned list of network filters isn't guaranteed.

Table 6.451. Parameters summary

Name	Type	Direction	Summary
<b>filters</b>	<a href="#">NetworkFilter[]</a>	Out	
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

### 6.149.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.150. NETWORKLABEL

Table 6.452. Methods summary

Name	Summary
<b>get</b>	
<b>remove</b>	Removes a label from a logical network.

### 6.150.1. get GET

Table 6.453. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>label</b>	<a href="#">NetworkLabel</a>	Out	

### 6.150.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.150.2. remove DELETE

Removes a label from a logical network.

For example, to remove the label **exemplary** from a logical network having id **123** send the following request:

```
DELETE /ovirt-engine/api/networks/123/networklabels/exemplary
```

Table 6.454. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

## 6.151. NETWORKLABELS

Manages the set of labels attached to a network or to a host NIC.

Table 6.455. Methods summary

Name	Summary
<b>add</b>	Attaches label to logical network.
<b>list</b>	Returns the list of labels attached to the network or host NIC.

### 6.151.1. add POST

Attaches label to logical network.

You can attach labels to a logical network to automate the association of that logical network with physical host network interfaces to which the same label has been attached.

For example, to attach the label **mylabel** to a logical network having id **123** send a request like this:

```
POST /ovirt-engine/api/networks/123/networklabels
```

With a request body like this:

```
<network_label id="mylabel"/>
```

Table 6.456. Parameters summary

Name	Type	Direction	Summary
<b>label</b>	NetworkLabel	In/Out	

### 6.151.2. list GET

Returns the list of labels attached to the network or host NIC.

The order of the returned list of labels isn't guaranteed.

Table 6.457. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>labels</b>	NetworkLabel[]	Out	
<b>max</b>	Integer	In	Sets the maximum number of labels to return.

### 6.151.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.151.2.2. max

Sets the maximum number of labels to return. If not specified all the labels are returned.

## 6.152. NETWORKS

Manages logical networks.

The engine creates a default **ovirtmgmt** network on installation. This network acts as the management network for access to hypervisor hosts. This network is associated with the **Default** cluster and is a member of the **Default** data center.

Table 6.458. Methods summary

Name	Summary
<b>add</b>	Creates a new logical network, or associates an existing network with a data center.
<b>list</b>	List logical networks.

### 6.152.1. add POST

Creates a new logical network, or associates an existing network with a data center.

Creation of a new network requires the **name** and **data\_center** elements.

For example, to create a network named **mynetwork** for data center **123** send a request like this:

```
POST /ovirt-engine/api/networks
```

With a request body like this:

```
<network>
  <name>mynetwork</name>
  <data_center id="123"/>
</network>
```

To associate the existing network **456** with the data center **123** send a request like this:

```
POST /ovirt-engine/api/datacenters/123/networks
```

With a request body like this:

```
<network>
  <name>ovirtmgmt</name>
</network>
```

To create a network named **exnetwork** on top of an external *OpenStack* network provider **456** send a request like this:

```
POST /ovirt-engine/api/networks
```

```
<network>
  <name>exnetwork</name>
  <external_provider id="456"/>
  <data_center id="123"/>
</network>
```

Table 6.459. Parameters summary

Name	Type	Direction	Summary
<b>network</b>	Network	In/Out	

### 6.152.2. list GET

List logical networks.

For example:

```
GET /ovirt-engine/api/networks
```

Will respond:

```
<networks>
  <network href="/ovirt-engine/api/networks/123" id="123">
    <name>ovirtmgmt</name>
    <description>Default Management Network</description>
    <link href="/ovirt-engine/api/networks/123/permissions" rel="permissions"/>
    <link href="/ovirt-engine/api/networks/123/vnicprofiles" rel="vnicprofiles"/>
    <link href="/ovirt-engine/api/networks/123/networklabels" rel="networklabels"/>
    <mtu>0</mtu>
    <stp>>false</stp>
    <usages>
      <usage>vm</usage>
    </usages>
    <data_center href="/ovirt-engine/api/datacenters/456" id="456"/>
  </network>
</networks>
```

```

</network>
...
</networks>

```

The order of the returned list of networks is guaranteed only if the **sortby** clause is included in the **search** parameter.

Table 6.460. Parameters summary

Name	Type	Direction	Summary
<b>case_sensitive</b>	Boolean	In	Indicates if the search performed using the <b>search</b> parameter should be performed taking case into account.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of networks to return.
<b>networks</b>	Network[]	Out	
<b>search</b>	String	In	A query string used to restrict the returned networks.

#### 6.152.2.1. case\_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

#### 6.152.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.152.2.3. max

Sets the maximum number of networks to return. If not specified all the networks are returned.

## 6.153. NICNETWORKFILTERPARAMETER

This service manages a parameter for a network filter.

Table 6.461. Methods summary

Name	Summary
<b>get</b>	Retrieves a representation of the network filter parameter.
<b>remove</b>	Removes the filter parameter.

Name	Summary
<b>update</b>	Updates the network filter parameter.

### 6.153.1. get GET

Retrieves a representation of the network filter parameter.

**Table 6.462. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>parameter</b>	<a href="#">NetworkFilterParameter</a>	Out	The representation of the network filter parameter.

#### 6.153.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.153.2. remove DELETE

Removes the filter parameter.

For example, to remove the filter parameter with id **123** on NIC **456** of virtual machine **789** send a request like this:

```
DELETE /ovirt-engine/api/vms/789/nics/456/networkfilterparameters/123
```

### 6.153.3. update PUT

Updates the network filter parameter.

For example, to update the network filter parameter having with with id **123** on NIC **456** of virtual machine **789** send a request like this:

```
PUT /ovirt-engine/api/vms/789/nics/456/networkfilterparameters/123
```

With a request body like this:

```
<network_filter_parameter>
  <name>updatedName</name>
  <value>updatedValue</value>
</network_filter_parameter>
```

**Table 6.463. Parameters summary**

Name	Type	Direction	Summary
<b>parameter</b>	<a href="#">NetworkFilterParameter</a>	In/Out	The network filter parameter that is being updated.

## 6.154. NICNETWORKFILTERPARAMETERS

This service manages a collection of parameters for network filters.

**Table 6.464. Methods summary**

Name	Summary
<b>add</b>	Add a network filter parameter.
<b>list</b>	Retrieves the representations of the network filter parameters.

### 6.154.1. add POST

Add a network filter parameter.

For example, to add the parameter for the network filter on NIC **456** of virtual machine **789** send a request like this:

```
POST /ovirt-engine/api/vms/789/nics/456/networkfilterparameters
```

With a request body like this:

```
<network_filter_parameter>
  <name>IP</name>
  <value>10.0.1.2</value>
</network_filter_parameter>
```

**Table 6.465. Parameters summary**

Name	Type	Direction	Summary
<b>parameter</b>	<a href="#">NetworkFilterParameter</a>	In/Out	The network filter parameter that is being added.

### 6.154.2. list GET

Retrieves the representations of the network filter parameters.

The order of the returned list of network filters isn't guaranteed.

**Table 6.466. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>parameters</b>	NetworkFilterParameter[]	Out	The list of the network filter parameters.

### 6.154.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.155. OPENSTACKIMAGE

Table 6.467. Methods summary

Name	Summary
<b>get</b>	
<b>import</b>	Imports a virtual machine from a Glance image storage domain.

### 6.155.1. get GET

Table 6.468. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>image</b>	OpenStackImage	Out	

#### 6.155.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.155.2. import POST

Imports a virtual machine from a Glance image storage domain.

For example, to import the image with identifier **456** from the storage domain with identifier **123** send a request like this:

```
POST /ovirt-engine/api/openstackimageproviders/123/images/456/import
```

With a request body like this:

```

<action>
  <storage_domain>
    <name>images0</name>
  </storage_domain>
  <cluster>
    <name>images0</name>
  </cluster>
</action>

```

Table 6.469. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the import should be performed asynchronously.
<b>cluster</b>	Cluster	In	This parameter is mandatory in case of using <b>import_as_template</b> and indicates which cluster should be used for import glance image as template.
<b>disk</b>	Disk	In	
<b>import_as_template</b>	Boolean	In	Indicates whether the image should be imported as a template.
<b>storage_domain</b>	StorageDomain	In	
<b>template</b>	Template	In	

## 6.156. OPENSTACKIMAGEPROVIDER

Table 6.470. Methods summary

Name	Summary
<b>get</b>	
<b>importcertificates</b>	Import the SSL certificates of the external host provider.
<b>remove</b>	
<b>testconnectivity</b>	In order to test connectivity for external provider we need to run following request where 123 is an id of a provider.
<b>update</b>	Update the specified OpenStack image provider in the system.

### 6.156.1. get GET

Table 6.471. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>provider</b>	OpenStackImageProvider	Out	

### 6.156.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.156.2. importcertificates POST

Import the SSL certificates of the external host provider.

Table 6.472. Parameters summary

Name	Type	Direction	Summary
<b>certificates</b>	Certificate[]	In	

### 6.156.3. remove DELETE

Table 6.473. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

### 6.156.4. testconnectivity POST

In order to test connectivity for external provider we need to run following request where 123 is an id of a provider.

```
POST /ovirt-engine/api/externalhostproviders/123/testconnectivity
```

Table 6.474. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the test should be performed asynchronously.

### 6.156.5. update PUT

Update the specified OpenStack image provider in the system.

Table 6.475. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>provider</b>	OpenStackImageProvider	In/Out	

## 6.157. OPENSTACKIMAGEPROVIDERS

Table 6.476. Methods summary

Name	Summary
<b>add</b>	Add a new OpenStack image provider to the system.
<b>list</b>	Returns the list of providers.

### 6.157.1. add POST

Add a new OpenStack image provider to the system.

Table 6.477. Parameters summary

Name	Type	Direction	Summary
<b>provider</b>	OpenStackImageProvider	In/Out	

### 6.157.2. list GET

Returns the list of providers.

The order of the returned list of providers isn't guaranteed.

Table 6.478. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
<b>max</b>	Integer	In	Sets the maximum number of providers to return.
<b>providers</b>	OpenStackImageProvider[]	Out	
<b>search</b>	String	In	A query string used to restrict the returned OpenStack image providers.

### 6.157.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.157.2.2. max

Sets the maximum number of providers to return. If not specified all the providers are returned.

## 6.158. OPENSTACKIMAGES

Table 6.479. Methods summary

Name	Summary
<b>list</b>	Lists the images of a Glance image storage domain.

### 6.158.1. list GET

Lists the images of a Glance image storage domain.

The order of the returned list of images isn't guaranteed.

Table 6.480. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>images</b>	OpenStackImage[]	Out	
<b>max</b>	Integer	In	Sets the maximum number of images to return.

### 6.158.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.158.1.2. max

Sets the maximum number of images to return. If not specified all the images are returned.

## 6.159. OPENSTACKNETWORK

Table 6.481. Methods summary

Name	Summary
<b>get</b>	
<b>import</b>	This operation imports an external network into Red Hat Virtualization.

### 6.159.1. get GET

Table 6.482. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>network</b>	<a href="#">OpenStackNetwork</a>	Out	

#### 6.159.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.159.2. import POST

This operation imports an external network into Red Hat Virtualization. The network will be added to the specified data center.

Table 6.483. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the import should be performed asynchronously.
<b>data_center</b>	<a href="#">DataCenter</a>	In	The data center into which the network is to be imported.

#### 6.159.2.1. data\_center

The data center into which the network is to be imported. Data center is mandatory, and can be specified using the **id** or **name** attributes. The rest of the attributes will be ignored.

**NOTE**

If **auto\_sync** is enabled for the provider, the network might be imported automatically. To prevent this, automatic import can be disabled by setting the **auto\_sync** to false, and enabling it again after importing the network.

## 6.160. OPENSTACKNETWORKPROVIDER

This service manages the OpenStack network provider.

Table 6.484. Methods summary

Name	Summary
<b>get</b>	Returns the representation of the object managed by this service.
<b>importcertificates</b>	Import the SSL certificates of the external host provider.
<b>remove</b>	Removes the provider.
<b>testconnectivity</b>	In order to test connectivity for external provider we need to run following request where 123 is an id of a provider.
<b>update</b>	Updates the provider.

### 6.160.1. get GET

Returns the representation of the object managed by this service.

For example, to get the OpenStack network provider with identifier **1234**, send a request like this:

```
GET /ovirt-engine/api/openstacknetworkproviders/1234
```

Table 6.485. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>provider</b>	OpenStackNetworkProvider	Out	

#### 6.160.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.160.2. importcertificates POST

Import the SSL certificates of the external host provider.

**Table 6.486. Parameters summary**

Name	Type	Direction	Summary
<b>certificates</b>	<a href="#">Certificate[]</a>	In	

### 6.160.3. remove DELETE

Removes the provider.

For example, to remove the OpenStack network provider with identifier **1234**, send a request like this:

```
DELETE /ovirt-engine/api/openstacknetworkproviders/1234
```

**Table 6.487. Parameters summary**

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the remove should be performed asynchronously.

### 6.160.4. testconnectivity POST

In order to test connectivity for external provider we need to run following request where 123 is an id of a provider.

```
POST /ovirt-engine/api/externalhostproviders/123/testconnectivity
```

**Table 6.488. Parameters summary**

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the test should be performed asynchronously.

### 6.160.5. update PUT

Updates the provider.

For example, to update **provider\_name**, **requires\_authentication**, **url**, **tenant\_name** and **type** properties, for the OpenStack network provider with identifier **1234**, send a request like this:

```
PUT /ovirt-engine/api/openstacknetworkproviders/1234
```

With a request body like this:

```
<openstack_network_provider>
<name>ovn-network-provider</name>
```

```

<requires_authentication>false</requires_authentication>
<url>http://some_server_url.domain.com:9696</url>
<tenant_name>oVirt</tenant_name>
<type>external</type>
</openstack_network_provider>

```

Table 6.489. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>provider</b>	OpenStackNetworkProvider	In/Out	The provider to update.

## 6.161. OPENSTACKNETWORKPROVIDERS

This service manages OpenStack network providers.

Table 6.490. Methods summary

Name	Summary
<b>add</b>	The operation adds a new network provider to the system.
<b>list</b>	Returns the list of providers.

### 6.161.1. add POST

The operation adds a new network provider to the system. If the **type** property is not present, a default value of **NEUTRON** will be used.

Table 6.491. Parameters summary

Name	Type	Direction	Summary
<b>provider</b>	OpenStackNetworkProvider	In/Out	

### 6.161.2. list GET

Returns the list of providers.

The order of the returned list of providers isn't guaranteed.

Table 6.492. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of providers to return.
<b>providers</b>	OpenStackNetworkProvider[]	Out	
<b>search</b>	String	In	A query string used to restrict the returned OpenStack network providers.

### 6.161.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.161.2.2. max

Sets the maximum number of providers to return. If not specified all the providers are returned.

## 6.162. OPENSTACKNETWORKS

Table 6.493. Methods summary

Name	Summary
<b>list</b>	Returns the list of networks.

### 6.162.1. list GET

Returns the list of networks.

The order of the returned list of networks isn't guaranteed.

Table 6.494. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of networks to return.
<b>networks</b>	OpenStackNetwork[]	Out	

### 6.162.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.162.1.2. max

Sets the maximum number of networks to return. If not specified all the networks are returned.

## 6.163. OPENSTACKSUBNET

Table 6.495. Methods summary

Name	Summary
<b>get</b>	
<b>remove</b>	

### 6.163.1. get GET

Table 6.496. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>subnet</b>	<a href="#">OpenStackS ubnet</a>	Out	

#### 6.163.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.163.2. remove DELETE

Table 6.497. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the remove should be performed asynchronously.

## 6.164. OPENSTACKSUBNETS

Table 6.498. Methods summary

Name	Summary
<b>add</b>	
<b>list</b>	Returns the list of sub-networks.

### 6.164.1. add POST

Table 6.499. Parameters summary

Name	Type	Direction	Summary
<b>subnet</b>	OpenStackS ubnet	In/Out	

### 6.164.2. list GET

Returns the list of sub-networks.

The order of the returned list of sub-networks isn't guaranteed.

Table 6.500. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of sub-networks to return.
<b>subnets</b>	OpenStackS ubnet[]	Out	

#### 6.164.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.164.2.2. max

Sets the maximum number of sub-networks to return. If not specified all the sub-networks are returned.

## 6.165. OPENSTACKVOLUMEAUTHENTICATIONKEY

Openstack Volume (Cinder) integration has been replaced by Managed Block Storage.

Table 6.501. Methods summary

Name	Summary
<b>get</b>	
<b>remove</b>	
<b>update</b>	Update the specified authentication key.

### 6.165.1. get GET

Table 6.502. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>key</b>	OpenstackVolumeAuthenticationKey	Out	

#### 6.165.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.165.2. remove DELETE

Table 6.503. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

### 6.165.3. update PUT

Update the specified authentication key.

Table 6.504. Parameters summary

Name	Type	Direction	Summary
<b>key</b>	OpenstackVolumeAuthenticationKey	In/Out	

## 6.166. OPENSTACKVOLUMEAUTHENTICATIONKEYS

Openstack Volume (Cinder) integration has been replaced by Managed Block Storage.

**Table 6.505. Methods summary**

Name	Summary
<b>add</b>	Add a new authentication key to the OpenStack volume provider.
<b>list</b>	Returns the list of authentication keys.

### 6.166.1. add POST

Add a new authentication key to the OpenStack volume provider.

**Table 6.506. Parameters summary**

Name	Type	Direction	Summary
<b>key</b>	OpenstackVolumeAuthenticationKey	In/Out	

### 6.166.2. list GET

Returns the list of authentication keys.

The order of the returned list of authentication keys isn't guaranteed.

**Table 6.507. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>keys</b>	OpenstackVolumeAuthenticationKey[]	Out	
<b>max</b>	Integer	In	Sets the maximum number of keys to return.

#### 6.166.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.166.2.2. max

Sets the maximum number of keys to return. If not specified all the keys are returned.

## 6.167. OPENSTACKVOLUMEPROVIDER

Openstack Volume (Cinder) integration has been replaced by Managed Block Storage.

Table 6.508. Methods summary

Name	Summary
<b>get</b>	
<b>importcertificates</b>	Import the SSL certificates of the external host provider.
<b>remove</b>	
<b>testconnectivity</b>	In order to test connectivity for external provider we need to run following request where 123 is an id of a provider.
<b>update</b>	Update the specified OpenStack volume provider in the system.

### 6.167.1. get GET

Table 6.509. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>provider</b>	<a href="#">OpenStackVolumeProvider</a>	Out	

#### 6.167.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.167.2. importcertificates POST

Import the SSL certificates of the external host provider.

Table 6.510. Parameters summary

Name	Type	Direction	Summary
<b>certificates</b>	<a href="#">Certificate[]</a>	In	

### 6.167.3. remove DELETE

Table 6.511. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.
<b>force</b>	Boolean	In	Indicates if the operation should succeed, and the provider removed from the database, even if something fails during the operation.

### 6.167.3.1. force

Indicates if the operation should succeed, and the provider removed from the database, even if something fails during the operation.

This parameter is optional, and the default value is **false**.

### 6.167.4. testconnectivity POST

In order to test connectivity for external provider we need to run following request where 123 is an id of a provider.

```
POST /ovirt-engine/api/externalhostproviders/123/testconnectivity
```

Table 6.512. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the test should be performed asynchronously.

### 6.167.5. update PUT

Update the specified OpenStack volume provider in the system.

Table 6.513. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>provider</b>	OpenStackVolumeProvider	In/Out	

## 6.168. OPENSTACKVOLUMEPROVIDERS

Openstack Volume (Cinder) integration has been replaced by Managed Block Storage.

Table 6.514. Methods summary

Name	Summary
<b>add</b>	Adds a new volume provider.
<b>list</b>	Retrieves the list of volume providers.

### 6.168.1. add POST

Adds a new volume provider.

For example:

```
POST /ovirt-engine/api/openstackvolumeproviders
```

With a request body like this:

```
<openstack_volume_provider>
  <name>mycinder</name>
  <url>https://mycinder.example.com:8776</url>
  <data_center>
    <name>mydc</name>
  </data_center>
  <requires_authentication>true</requires_authentication>
  <username>admin</username>
  <password>mypassword</password>
  <tenant_name>mytenant</tenant_name>
</openstack_volume_provider>
```

Table 6.515. Parameters summary

Name	Type	Direction	Summary
<b>provider</b>	OpenStackV olumeProvid er	In/Out	

### 6.168.2. list GET

Retrieves the list of volume providers.

The order of the returned list of volume providers isn't guaranteed.

Table 6.516. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
<b>max</b>	Integer	In	Sets the maximum number of providers to return.
<b>providers</b>	OpenStackVolumeProvider[]	Out	
<b>search</b>	String	In	A query string used to restrict the returned volume providers.

### 6.168.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.168.2.2. max

Sets the maximum number of providers to return. If not specified all the providers are returned.

## 6.169. OPENSTACKVOLUMETYPE

Openstack Volume (Cinder) integration has been replaced by Managed Block Storage.

Table 6.517. Methods summary

Name	Summary
<b>get</b>	

### 6.169.1. get GET

Table 6.518. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>type</b>	OpenStackVolumeType	Out	

#### 6.169.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.170. OPENSTACKVOLUMETYPES

Openstack Volume (Cinder) integration has been replaced by Managed Block Storage.

**Table 6.519. Methods summary**

Name	Summary
<b>list</b>	Returns the list of volume types.

### 6.170.1. list GET

Returns the list of volume types.

The order of the returned list of volume types isn't guaranteed.

**Table 6.520. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of volume types to return.
<b>types</b>	<a href="#">OpenStackVolumeType[]</a>	Out	

#### 6.170.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.170.1.2. max

Sets the maximum number of volume types to return. If not specified all the volume types are returned.

## 6.171. OPERATINGSYSTEM

**Table 6.521. Methods summary**

Name	Summary
<b>get</b>	

### 6.171.1. get GET

**Table 6.522. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
<b>operating_system</b>	<a href="#">OperatingSystemInfo</a>	Out	

#### 6.171.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.172. OPERATINGSYSTEMS

Manages the set of types of operating systems available in the system.

Table 6.523. Methods summary

Name	Summary
<b>list</b>	Returns the list of types of operating system available in the system.

#### 6.172.1. list GET

Returns the list of types of operating system available in the system.

The order of the returned list of operating systems isn't guaranteed.

Table 6.524. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of networks to return.
<b>operating_system</b>	<a href="#">OperatingSystemInfo[]</a>	Out	

#### 6.172.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.172.1.2. max

Sets the maximum number of networks to return. If not specified all the networks are returned.

## 6.173. PERMISSION

Table 6.525. Methods summary

Name	Summary
<b>get</b>	
<b>remove</b>	

### 6.173.1. get GET

Table 6.526. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>permission</b>	<a href="#">Permission</a>	Out	

#### 6.173.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.173.2. remove DELETE

Table 6.527. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the remove should be performed asynchronously.

## 6.174. PERMIT

A service to manage a specific permit of the role.

Table 6.528. Methods summary

Name	Summary
<b>get</b>	Gets the information about the permit of the role.
<b>remove</b>	Removes the permit from the role.

### 6.174.1. get GET

Gets the information about the permit of the role.

For example to retrieve the information about the permit with the id **456** of the role with the id **123** send a request like this:

```
GET /ovirt-engine/api/roles/123/permits/456
```

```
<permit href="/ovirt-engine/api/roles/123/permits/456" id="456">
  <name>change_vm_cd</name>
  <administrative>false</administrative>
  <role href="/ovirt-engine/api/roles/123" id="123"/>
</permit>
```

Table 6.529. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>permit</b>	Permit	Out	The permit of the role.

### 6.174.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.174.2. remove DELETE

Removes the permit from the role.

For example to remove the permit with id **456** from the role with id **123** send a request like this:

```
DELETE /ovirt-engine/api/roles/123/permits/456
```

Table 6.530. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

## 6.175. PERMITS

Represents a permits sub-collection of the specific role.

Table 6.531. Methods summary

Name	Summary
<b>add</b>	Adds a permit to the role.
<b>list</b>	List the permits of the role.

### 6.175.1. add POST

Adds a permit to the role. The permit name can be retrieved from the [cluster\\_levels](#) service.

For example to assign a permit **create\_vm** to the role with id **123** send a request like this:

```
POST /ovirt-engine/api/roles/123/permits
```

With a request body like this:

```
<permit>
  <name>create_vm</name>
</permit>
```

Table 6.532. Parameters summary

Name	Type	Direction	Summary
<b>permit</b>	Permit	In/Out	The permit to add.

### 6.175.2. list GET

List the permits of the role.

For example to list the permits of the role with the id **123** send a request like this:

```
GET /ovirt-engine/api/roles/123/permits
```

```
<permits>
  <permit href="/ovirt-engine/api/roles/123/permits/5" id="5">
    <name>change_vm_cd</name>
    <administrative>false</administrative>
    <role href="/ovirt-engine/api/roles/123" id="123"/>
  </permit>
  <permit href="/ovirt-engine/api/roles/123/permits/7" id="7">
    <name>connect_to_vm</name>
    <administrative>false</administrative>
    <role href="/ovirt-engine/api/roles/123" id="123"/>
  </permit>
</permits>
```

The order of the returned list of permits isn't guaranteed.

Table 6.533. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of permits to return.

Name	Type	Direction	Summary
<b>permits</b>	<a href="#">Permit[]</a>	Out	List of permits.

### 6.175.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.175.2.2. max

Sets the maximum number of permits to return. If not specified all the permits are returned.

## 6.176. QOS

Table 6.534. Methods summary

Name	Summary
<b>get</b>	Get specified QoS in the data center.
<b>remove</b>	Remove specified QoS from datacenter.
<b>update</b>	Update the specified QoS in the dataCenter.

### 6.176.1. get GET

Get specified QoS in the data center.

```
GET /ovirt-engine/api/datacenters/123/qoss/123
```

You will get response like this one below:

```
<qos href="/ovirt-engine/api/datacenters/123/qoss/123" id="123">
  <name>123</name>
  <description>123</description>
  <max_iops>1</max_iops>
  <max_throughput>1</max_throughput>
  <type>storage</type>
  <data_center href="/ovirt-engine/api/datacenters/123" id="123"/>
</qos>
```

Table 6.535. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
<b>qos</b>	<a href="#">Qos</a>	Out	Queried QoS object.

### 6.176.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.176.2. remove DELETE

Remove specified QoS from datacenter.

```
DELETE /ovirt-engine/api/datacenters/123/qoss/123
```

Table 6.536. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the remove should be performed asynchronously.

### 6.176.3. update PUT

Update the specified QoS in the dataCenter.

```
PUT /ovirt-engine/api/datacenters/123/qoss/123
```

For example with curl:

```
curl -u admin@internal:123456 -X PUT -H "content-type: application/xml" -d \
"<qos><name>321</name><description>321</description><max_iops>10</max_iops></qos>" \
https://engine/ovirt-engine/api/datacenters/123/qoss/123
```

You will receive response like this:

```
<qos href="/ovirt-engine/api/datacenters/123/qoss/123" id="123">
  <name>321</name>
  <description>321</description>
  <max_iops>10</max_iops>
  <max_throughput>1</max_throughput>
  <type>storage</type>
  <data_center href="/ovirt-engine/api/datacenters/123" id="123"/>
</qos>
```

Table 6.537. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>qos</b>	Qos	In/Out	Updated QoS object.

## 6.177. QOSS

Manages the set of *quality of service* configurations available in a data center.

**Table 6.538. Methods summary**

Name	Summary
<b>add</b>	Add a new QoS to the dataCenter.
<b>list</b>	Returns the list of <i>quality of service</i> configurations available in the data center.

### 6.177.1. add POST

Add a new QoS to the dataCenter.

POST /ovirt-engine/api/datacenters/123/qoss

The response will look as follows:

```
<qos href="/ovirt-engine/api/datacenters/123/qoss/123" id="123">
  <name>123</name>
  <description>123</description>
  <max_iops>10</max_iops>
  <type>storage</type>
  <data_center href="/ovirt-engine/api/datacenters/123" id="123"/>
</qos>
```

**Table 6.539. Parameters summary**

Name	Type	Direction	Summary
<b>qos</b>	Qos	In/Out	Added QoS object.

### 6.177.2. list GET

Returns the list of *quality of service* configurations available in the data center.

GET /ovirt-engine/api/datacenter/123/qoss

You will get response which will look like this:

-

```

<qoss>
  <qos href="/ovirt-engine/api/datacenters/123/qoss/1" id="1">...</qos>
  <qos href="/ovirt-engine/api/datacenters/123/qoss/2" id="2">...</qos>
  <qos href="/ovirt-engine/api/datacenters/123/qoss/3" id="3">...</qos>
</qoss>

```

The returned list of quality of service configurations isn't guaranteed.

Table 6.540. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of QoS descriptors to return.
<b>qoss</b>	Qos[]	Out	List of queried QoS objects.

#### 6.177.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.177.2.2. max

Sets the maximum number of QoS descriptors to return. If not specified all the descriptors are returned.

## 6.178. QUOTA

Table 6.541. Methods summary

Name	Summary
<b>get</b>	Retrieves a quota.
<b>remove</b>	Delete a quota.
<b>update</b>	Updates a quota.

#### 6.178.1. get GET

Retrieves a quota.

An example of retrieving a quota:

```
GET /ovirt-engine/api/datacenters/123/quotas/456
```

```

<quota id="456">
  <name>myquota</name>

```

```

<description>My new quota for virtual machines</description>
<cluster_hard_limit_pct>20</cluster_hard_limit_pct>
<cluster_soft_limit_pct>80</cluster_soft_limit_pct>
<storage_hard_limit_pct>20</storage_hard_limit_pct>
<storage_soft_limit_pct>80</storage_soft_limit_pct>
</quota>

```

Table 6.542. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>quota</b>	Quota	Out	

### 6.178.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.178.2. remove DELETE

Delete a quota.

An example of deleting a quota:

```

DELETE /ovirt-engine/api/datacenters/123-456/quotas/654-321
-0472718ab224 HTTP/1.1
Accept: application/xml
Content-type: application/xml

```

Table 6.543. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

### 6.178.3. update PUT

Updates a quota.

An example of updating a quota:

```

PUT /ovirt-engine/api/datacenters/123/quotas/456

```

```

<quota>
<cluster_hard_limit_pct>30</cluster_hard_limit_pct>
<cluster_soft_limit_pct>70</cluster_soft_limit_pct>

```

```
<storage_hard_limit_pct>20</storage_hard_limit_pct>
<storage_soft_limit_pct>80</storage_soft_limit_pct>
</quota>
```

Table 6.544. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>quota</b>	Quota	In/Out	

## 6.179. QUOTA\_CLUSTERLIMIT

Table 6.545. Methods summary

Name	Summary
<b>get</b>	
<b>remove</b>	

### 6.179.1. get GET

Table 6.546. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>limit</b>	QuotaClusterLimit	Out	

#### 6.179.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.179.2. remove DELETE

Table 6.547. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

## 6.180. QUOTA\_CLUSTER\_LIMITS

Manages the set of quota limits configured for a cluster.

Table 6.548. Methods summary

Name	Summary
<b>add</b>	Add a cluster limit to a specified Quota.
<b>list</b>	Returns the set of quota limits configured for the cluster.

### 6.180.1. add POST

Add a cluster limit to a specified Quota.

Table 6.549. Parameters summary

Name	Type	Direction	Summary
<b>limit</b>	<a href="#">QuotaClusterLimit</a>	In/Out	

### 6.180.2. list GET

Returns the set of quota limits configured for the cluster.

The returned list of quota limits isn't guaranteed.

Table 6.550. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>limits</b>	<a href="#">QuotaClusterLimit[]</a>	Out	
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of limits to return.

#### 6.180.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.180.2.2. max

Sets the maximum number of limits to return. If not specified all the limits are returned.

## 6.181. QUOTASTORAGELIMIT

Table 6.551. Methods summary

Name	Summary
<b>get</b>	
<b>remove</b>	

### 6.181.1. get GET

Table 6.552. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>limit</b>	<a href="#">QuotaStorageLimit</a>	Out	

#### 6.181.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.181.2. remove DELETE

Table 6.553. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the update should be performed asynchronously.

## 6.182. QUOTASTORAGELIMITS

Manages the set of storage limits configured for a quota.

Table 6.554. Methods summary

Name	Summary
<b>add</b>	Adds a storage limit to a specified quota.
<b>list</b>	Returns the list of storage limits configured for the quota.

### 6.182.1. add POST

Adds a storage limit to a specified quota.

To create a 100GiB storage limit for all storage domains in a data center, send a request like this:

```
POST /ovirt-engine/api/datacenters/123/quotas/456/quotastoragelimits
```

With a request body like this:

```
<quota_storage_limit>
  <limit>100</limit>
</quota_storage_limit>
```

To create a 50GiB storage limit for a storage domain with the ID **000**, send a request like this:

```
POST /ovirt-engine/api/datacenters/123/quotas/456/quotastoragelimits
```

With a request body like this:

```
<quota_storage_limit>
  <limit>50</limit>
  <storage_domain id="000"/>
</quota_storage_limit>
```

Table 6.555. Parameters summary

Name	Type	Direction	Summary
<b>limit</b>	QuotaStorageLimit	In/Out	

### 6.182.2. list GET

Returns the list of storage limits configured for the quota.

The order of the returned list of storage limits is not guaranteed.

Table 6.556. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>limits</b>	QuotaStorageLimit[]	Out	
<b>max</b>	Integer	In	Sets the maximum number of limits to return.

#### 6.182.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.182.2.2. max

Sets the maximum number of limits to return. If not specified, all the limits are returned.

## 6.183. QUOTAS

Manages the set of quotas configured for a data center.

Table 6.557. Methods summary

Name	Summary
<b>add</b>	Creates a new quota.
<b>list</b>	Lists quotas of a data center.

### 6.183.1. add POST

Creates a new quota.

An example of creating a new quota:

```
POST /ovirt-engine/api/datacenters/123/quotas
```

```
<quota>
  <name>myquota</name>
  <description>My new quota for virtual machines</description>
</quota>
```

Table 6.558. Parameters summary

Name	Type	Direction	Summary
<b>quota</b>	<a href="#">Quota</a>	In/Out	

### 6.183.2. list GET

Lists quotas of a data center.

The order of the returned list of quotas isn't guaranteed.

Table 6.559. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
<b>max</b>	Integer	In	Sets the maximum number of quota descriptors to return.
<b>quotas</b>	Quota[]	Out	

### 6.183.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.183.2.2. max

Sets the maximum number of quota descriptors to return. If not specified all the descriptors are returned.

## 6.184. ROLE

Table 6.560. Methods summary

Name	Summary
<b>get</b>	Get the role.
<b>remove</b>	Removes the role.
<b>update</b>	Updates a role.

### 6.184.1. get GET

Get the role.

```
GET /ovirt-engine/api/roles/123
```

You will receive XML response like this one:

```
<role id="123">
  <name>MyRole</name>
  <description>MyRole description</description>
  <link href="/ovirt-engine/api/roles/123/permits" rel="permits"/>
  <administrative>true</administrative>
  <mutable>false</mutable>
</role>
```

Table 6.561. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>role</b>	Role	Out	Retrieved role.

### 6.184.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.184.2. remove DELETE

Removes the role.

To remove the role you need to know its id, then send request like this:

```
DELETE /ovirt-engine/api/roles/{role_id}
```

Table 6.562. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

### 6.184.3. update PUT

Updates a role. You are allowed to update **name**, **description** and **administrative** attributes after role is created. Within this endpoint you can't add or remove roles permits you need to use [service](#) that manages permits of role.

For example to update role's **name**, **description** and **administrative** attributes send a request like this:

```
PUT /ovirt-engine/api/roles/123
```

With a request body like this:

```
<role>
  <name>MyNewRoleName</name>
  <description>My new description of the role</description>
  <administrative>true</administrative>
</group>
```

Table 6.563. Parameters summary

Name	Type	Direction	Summary
------	------	-----------	---------

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>role</b>	Role	In/Out	Updated role.

## 6.185. ROLES

Provides read-only access to the global set of roles

Table 6.564. Methods summary

Name	Summary
<b>add</b>	Create a new role.
<b>list</b>	List roles.

### 6.185.1. add POST

Create a new role. The role can be administrative or non-administrative and can have different permits.

For example, to add the **MyRole** non-administrative role with permits to login and create virtual machines send a request like this (note that you have to pass permit id):

```
POST /ovirt-engine/api/roles
```

With a request body like this:

```
<role>
  <name>MyRole</name>
  <description>My custom role to create virtual machines</description>
  <administrative>>false</administrative>
  <permits>
    <permit id="1"/>
    <permit id="1300"/>
  </permits>
</group>
```

Table 6.565. Parameters summary

Name	Type	Direction	Summary
<b>role</b>	Role	In/Out	Role that will be added.

### 6.185.2. list GET

List roles.

## GET /ovirt-engine/api/roles

You will receive response in XML like this one:

```

<roles>
  <role id="123">
    <name>SuperUser</name>
    <description>Roles management administrator</description>
    <link href="/ovirt-engine/api/roles/123/permits" rel="permits"/>
    <administrative>true</administrative>
    <mutable>false</mutable>
  </role>
  ...
</roles>

```

The order of the returned list of roles isn't guaranteed.

Table 6.566. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of roles to return.
<b>roles</b>	Role[]	Out	Retrieved list of roles.

### 6.185.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.185.2.2. max

Sets the maximum number of roles to return. If not specified all the roles are returned.

## 6.186. SCHEDULINGPOLICIES

Manages the set of scheduling policies available in the system.

Table 6.567. Methods summary

Name	Summary
<b>add</b>	Add a new scheduling policy to the system.
<b>list</b>	Returns the list of scheduling policies available in the system.

### 6.186.1. add POST

Add a new scheduling policy to the system.

**Table 6.568. Parameters summary**

Name	Type	Direction	Summary
<b>policy</b>	SchedulingPolicy	In/Out	

### 6.186.2. list GET

Returns the list of scheduling policies available in the system.

The order of the returned list of scheduling policies isn't guaranteed.

**Table 6.569. Parameters summary**

Name	Type	Direction	Summary
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of policies to return.
<b>policies</b>	SchedulingPolicy[]	Out	

#### 6.186.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.186.2.2. max

Sets the maximum number of policies to return. If not specified all the policies are returned.

## 6.187. SCHEDULINGPOLICY

**Table 6.570. Methods summary**

Name	Summary
<b>get</b>	
<b>remove</b>	
<b>update</b>	Update the specified user defined scheduling policy in the system.

### 6.187.1. get GET

Table 6.571. Parameters summary

Name	Type	Direction	Summary
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>policy</b>	SchedulingPolicy	Out	

#### 6.187.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.187.2. remove DELETE

Table 6.572. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

### 6.187.3. update PUT

Update the specified user defined scheduling policy in the system.

Table 6.573. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>policy</b>	SchedulingPolicy	In/Out	

## 6.188. SCHEDULINGPOLICYUNIT

Table 6.574. Methods summary

Name	Summary
<b>get</b>	
<b>remove</b>	

### 6.188.1. get GET

Table 6.575. Parameters summary

Name	Type	Direction	Summary
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>unit</b>	SchedulingPolicyUnit	Out	

#### 6.188.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.188.2. remove DELETE

Table 6.576. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

## 6.189. SCHEDULINGPOLICYUNITS

Manages the set of scheduling policy units available in the system.

Table 6.577. Methods summary

Name	Summary
<b>list</b>	Returns the list of scheduling policy units available in the system.

### 6.189.1. list GET

Returns the list of scheduling policy units available in the system.

The order of the returned list of scheduling policy units isn't guaranteed.

**Table 6.578. Parameters summary**

Name	Type	Direction	Summary
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of policy units to return.
<b>units</b>	SchedulingPolicyUnit[]	Out	

#### 6.189.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.189.1.2. max

Sets the maximum number of policy units to return. If not specified all the policy units are returned.

## 6.190. SNAPSHOT

**Table 6.579. Methods summary**

Name	Summary
<b>get</b>	
<b>remove</b>	
<b>restore</b>	Restores a virtual machine snapshot.

#### 6.190.1. get GET

**Table 6.580. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>snapshot</b>	Snapshot	Out	

#### 6.190.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.190.2. remove DELETE

Table 6.581. Parameters summary

Name	Type	Direction	Summary
<b>all_content</b>	Boolean	In	Indicates if all the attributes of the virtual machine snapshot should be included in the response.
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

### 6.190.2.1. all\_content

Indicates if all the attributes of the virtual machine snapshot should be included in the response.

By default the attribute **initialization.configuration.data** is excluded.

For example, to retrieve the complete representation of the snapshot with id **456** of the virtual machine with id **123** send a request like this:

```
GET /ovirt-engine/api/vms/123/snapshots/456?all_content=true
```

## 6.190.3. restore POST

Restores a virtual machine snapshot.

For example, to restore the snapshot with identifier **456** of virtual machine with identifier **123** send a request like this:

```
POST /ovirt-engine/api/vms/123/snapshots/456/restore
```

With an empty **action** in the body:

```
<action/>
```



### NOTE

Confirm that the commit operation is finished and the virtual machine is down before running the virtual machine.

Table 6.582. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the restore should be performed asynchronously.

Name	Type	Direction	Summary
<b>disks</b>	<a href="#">Disk[]</a>	In	Specify the disks included in the snapshot's restore.
<b>restore_memory</b>	<a href="#">Boolean</a>	In	

### 6.190.3.1. disks

Specify the disks included in the snapshot's restore.

For each disk parameter, it is also required to specify its **image\_id**.

For example, to restore a snapshot with an identifier **456** of a virtual machine with identifier **123**, including a disk with identifier **111** and **image\_id** of **222**, send a request like this:

```
POST /ovirt-engine/api/vms/123/snapshots/456/restore
```

Request body:

```
<action>
  <disks>
    <disk id="111">
      <image_id>222</image_id>
    </disk>
  </disks>
</action>
```

## 6.191. SNAPSHOTCDROM

Table 6.583. Methods summary

Name	Summary
<b>get</b>	

### 6.191.1. get GET

Table 6.584. Parameters summary

Name	Type	Direction	Summary
<b>cdrom</b>	<a href="#">Cdrom</a>	Out	
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

#### 6.191.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.192. SNAPSHOTCDROMS

Manages the set of CD-ROM devices of a virtual machine snapshot.

Table 6.585. Methods summary

Name	Summary
<b>list</b>	Returns the list of CD-ROM devices of the snapshot.

### 6.192.1. list GET

Returns the list of CD-ROM devices of the snapshot.

The order of the returned list of CD-ROM devices isn't guaranteed.

Table 6.586. Parameters summary

Name	Type	Direction	Summary
<b>cdroms</b>	<a href="#">Cdrom[]</a>	Out	
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of CDROMS to return.

#### 6.192.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.192.1.2. max

Sets the maximum number of CDROMS to return. If not specified all the CDROMS are returned.

## 6.193. SNAPSHOTDISK

Table 6.587. Methods summary

Name	Summary
<b>get</b>	

### 6.193.1. get GET

Table 6.588. Parameters summary

Name	Type	Direction	Summary
<b>disk</b>	Disk	Out	
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

### 6.193.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.194. SNAPSHOTDISKS

Manages the set of disks of an snapshot.

Table 6.589. Methods summary

Name	Summary
<b>list</b>	Returns the list of disks of the snapshot.

### 6.194.1. list GET

Returns the list of disks of the snapshot.

The order of the returned list of disks isn't guaranteed.

Table 6.590. Parameters summary

Name	Type	Direction	Summary
<b>disks</b>	Disk[]	Out	
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of disks to return.

#### 6.194.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.194.1.2. max

Sets the maximum number of disks to return. If not specified all the disks are returned.

## 6.195. SNAPSHOTNIC

Table 6.591. Methods summary

Name	Summary
<b>get</b>	

### 6.195.1. get GET

Table 6.592. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>nic</b>	<a href="#">Nic</a>	Out	

#### 6.195.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.196. SNAPSHOTNICS

Manages the set of NICs of an snapshot.

Table 6.593. Methods summary

Name	Summary
<b>list</b>	Returns the list of NICs of the snapshot.

### 6.196.1. list GET

Returns the list of NICs of the snapshot.

The order of the returned list of NICs isn't guaranteed.

Table 6.594. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of NICs to return.
<b>nics</b>	<a href="#">Nic[]</a>	Out	

#### 6.196.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.196.1.2. max

Sets the maximum number of NICs to return. If not specified all the NICs are returned.

## 6.197. SNAPSHOTS

Manages the set of snapshots of a storage domain or virtual machine.

Table 6.595. Methods summary

Name	Summary
<b>add</b>	Creates a virtual machine snapshot.
<b>list</b>	Returns the list of snapshots of the storage domain or virtual machine.

### 6.197.1. add POST

Creates a virtual machine snapshot.

For example, to create a new snapshot for virtual machine **123** send a request like this:

```
POST /ovirt-engine/api/vms/123/snapshots
```

With a request body like this:

```
<snapshot>
  <description>My snapshot</description>
</snapshot>
```

For including only a sub-set of disks in the snapshots, add **disk\_attachments** element to the request body. Note that disks which are not specified in **disk\_attachments** element will not be a part of the snapshot. If an empty **disk\_attachments** element is passed, the snapshot will include only the virtual machine configuration. If no **disk\_attachments** element is passed, then all the disks will be included in the snapshot.

For each disk, **image\_id** element can be specified for setting the new active image id. This is used in order to restore a chain of images from backup. I.e. when restoring a disk with snapshots, the relevant **image\_id** should be specified for each snapshot (so the identifiers of the disk snapshots are identical to the backup).

```
<snapshot>
  <description>My snapshot</description>
  <disk_attachments>
    <disk_attachment>
      <disk id="123">
        <image_id>456</image_id>
      </disk>
    </disk_attachment>
  </disk_attachments>
</snapshot>
```

```

</disk_attachment>
</disk_attachments>
</snapshot>

```



## IMPORTANT

When a snapshot is created, the default value for the `persist_memorystate` attribute is **true**. That means that the content of the memory of the virtual machine will be included in the snapshot, and it also means that the virtual machine will be paused for a longer time. That can negatively affect applications that are very sensitive to timing (NTP servers, for example). In those cases make sure that you set the attribute to **false**:

```

<snapshot>
  <description>My snapshot</description>
  <persist_memorystate>>false</persist_memorystate>
</snapshot>

```

Table 6.596. Parameters summary

Name	Type	Direction	Summary
<b>snapshot</b>	Snapshot	In/Out	

### 6.197.2. list GET

Returns the list of snapshots of the storage domain or virtual machine.

The order of the returned list of snapshots isn't guaranteed.

Table 6.597. Parameters summary

Name	Type	Direction	Summary
<b>all_content</b>	Boolean	In	Indicates if all the attributes of the virtual machine snapshot should be included in the response.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of snapshots to return.
<b>snapshots</b>	Snapshot[]	Out	

#### 6.197.2.1. all\_content

Indicates if all the attributes of the virtual machine snapshot should be included in the response.

By default the attribute `initialization.configuration.data` is excluded.

For example, to retrieve the complete representation of the virtual machine with id **123** snapshots send a request like this:

GET /ovirt-engine/api/vms/123/snapshots?all\_content=true

### 6.197.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.197.2.3. max

Sets the maximum number of snapshots to return. If not specified all the snapshots are returned.

## 6.198. SSHPUBLICKEY

Table 6.598. Methods summary

Name	Summary
<b>get</b>	
<b>remove</b>	
<b>update</b>	Replaces the key with a new resource.

### 6.198.1. get GET

Table 6.599. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>key</b>	<a href="#">SshPublicKey</a>	Out	

#### 6.198.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.198.2. remove DELETE

Table 6.600. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the remove should be performed asynchronously.

### 6.198.3. update PUT

Replaces the key with a new resource.



#### IMPORTANT

Since version 4.4.8 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. Instead please use DELETE followed by [add operation](#).

Table 6.601. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>key</b>	SshPublicKey	In/Out	

## 6.199. SSHPUBLICKEYS

Table 6.602. Methods summary

Name	Summary
<b>add</b>	
<b>list</b>	Returns a list of SSH public keys of the user.

### 6.199.1. add POST

Table 6.603. Parameters summary

Name	Type	Direction	Summary
<b>key</b>	SshPublicKey	In/Out	

### 6.199.2. list GET

Returns a list of SSH public keys of the user.

For example, to retrieve the list of SSH keys of user with identifier **123**, send a request like this:

```
GET /ovirt-engine/api/users/123/sshpublickeys
```

The result will be the following XML document:

```

<ssh_public_keys>
  <ssh_public_key href="/ovirt-engine/api/users/123/sshpublickeys/456" id="456">
    <content>ssh-rsa ...</content>
    <user href="/ovirt-engine/api/users/123" id="123"/>
  </ssh_public_key>
</ssh_public_keys>

```

Or the following JSON object

```

{
  "ssh_public_key": [
    {
      "content": "ssh-rsa ...",
      "user": {
        "href": "/ovirt-engine/api/users/123",
        "id": "123"
      },
      "href": "/ovirt-engine/api/users/123/sshpublickeys/456",
      "id": "456"
    }
  ]
}

```

The order of the returned list of keys is not guaranteed.

Table 6.604. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>keys</b>	SshPublicKey[]	Out	
<b>max</b>	Integer	In	Sets the maximum number of keys to return.

#### 6.199.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.199.2.2. max

Sets the maximum number of keys to return. If not specified all the keys are returned.

## 6.200. STATISTIC

Table 6.605. Methods summary

Name	Summary
<b>get</b>	

### 6.200.1. get GET

Table 6.606. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>statistic</b>	<a href="#">Statistic</a>	Out	

#### 6.200.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.201. STATISTICS

Table 6.607. Methods summary

Name	Summary
<b>list</b>	Retrieves a list of statistics.

### 6.201.1. list GET

Retrieves a list of statistics.

For example, to retrieve the statistics for virtual machine **123** send a request like this:

```
GET /ovirt-engine/api/vms/123/statistics
```

The result will be like this:

```
<statistics>
  <statistic href="/ovirt-engine/api/vms/123/statistics/456" id="456">
    <name>memory.installed</name>
    <description>Total memory configured</description>
    <kind>gauge</kind>
    <type>integer</type>
    <unit>bytes</unit>
    <values>
      <value>
        <datum>1073741824</datum>
      </value>
    </values>
```

```

    <vm href="/ovirt-engine/api/vms/123" id="123"/>
  </statistic>
  ...
</statistics>

```

Just a single part of the statistics can be retrieved by specifying its id at the end of the URI. That means:

```
GET /ovirt-engine/api/vms/123/statistics/456
```

Outputs:

```

<statistic href="/ovirt-engine/api/vms/123/statistics/456" id="456">
  <name>memory.installed</name>
  <description>Total memory configured</description>
  <kind>gauge</kind>
  <type>integer</type>
  <unit>bytes</unit>
  <values>
    <value>
      <datum>1073741824</datum>
    </value>
  </values>
  <vm href="/ovirt-engine/api/vms/123" id="123"/>
</statistic>

```

The order of the returned list of statistics isn't guaranteed.

**Table 6.608. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of statistics to return.
<b>statistics</b>	Statistic[]	Out	

#### 6.201.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.201.1.2. max

Sets the maximum number of statistics to return. If not specified all the statistics are returned.

## 6.202. STEP

A service to manage a step.

**Table 6.609. Methods summary**

Name	Summary
<b>end</b>	Marks an external step execution as ended.
<b>get</b>	Retrieves a step.

### 6.202.1. end POST

Marks an external step execution as ended.

For example, to terminate a step with identifier **456** which belongs to a **job** with identifier **123** send the following request:

```
POST /ovirt-engine/api/jobs/123/steps/456/end
```

With the following request body:

```
<action>
  <force>true</force>
  <succeeded>true</succeeded>
</action>
```

Table 6.610. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the action should be performed asynchronously.
<b>force</b>	Boolean	In	Indicates if the step should be forcibly terminated.
<b>succeeded</b>	Boolean	In	Indicates if the step should be marked as successfully finished or as failed.

#### 6.202.1.1. succeeded

Indicates if the step should be marked as successfully finished or as failed.

This parameter is optional, and the default value is **true**.

### 6.202.2. get GET

Retrieves a step.

```
GET /ovirt-engine/api/jobs/123/steps/456
```

You will receive response in XML like this one:

```
<step href="/ovirt-engine/api/jobs/123/steps/456" id="456">
  <actions>
```

```

    <link href="/ovirt-engine/api/jobs/123/steps/456/end" rel="end"/>
  </actions>
  <description>Validating</description>
  <end_time>2016-12-12T23:07:26.627+02:00</end_time>
  <external>false</external>
  <number>0</number>
  <start_time>2016-12-12T23:07:26.605+02:00</start_time>
  <status>finished</status>
  <type>validating</type>
  <job href="/ovirt-engine/api/jobs/123" id="123"/>
</step>

```

Table 6.611. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>step</b>	Step	Out	Retrieves the representation of the step.

### 6.202.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.203. STEPS

A service to manage steps.

Table 6.612. Methods summary

Name	Summary
<b>add</b>	Add an external step to an existing job or to an existing step.
<b>list</b>	Retrieves the representation of the steps.

### 6.203.1. add POST

Add an external step to an existing job or to an existing step.

For example, to add a step to **job** with identifier **123** send the following request:

```
POST /ovirt-engine/api/jobs/123/steps
```

With the following request body:

```

<step>
  <description>Validating</description>
  <start_time>2016-12-12T23:07:26.605+02:00</start_time>

```

```
<status>started</status>
<type>validating</type>
</step>
```

The response should look like:

```
<step href="/ovirt-engine/api/jobs/123/steps/456" id="456">
  <actions>
    <link href="/ovirt-engine/api/jobs/123/steps/456/end" rel="end"/>
  </actions>
  <description>Validating</description>
  <link href="/ovirt-engine/api/jobs/123/steps/456/statistics" rel="statistics"/>
  <external>true</external>
  <number>2</number>
  <start_time>2016-12-13T01:06:15.380+02:00</start_time>
  <status>started</status>
  <type>validating</type>
  <job href="/ovirt-engine/api/jobs/123" id="123"/>
</step>
```

Table 6.613. Parameters summary

Name	Type	Direction	Summary
<b>step</b>	Step	In/Out	Step that will be added.

### 6.203.2. list GET

Retrieves the representation of the steps.

```
GET /ovirt-engine/api/job/123/steps
```

You will receive response in XML like this one:

```
<steps>
  <step href="/ovirt-engine/api/jobs/123/steps/456" id="456">
    <actions>
      <link href="/ovirt-engine/api/jobs/123/steps/456/end" rel="end"/>
    </actions>
    <description>Validating</description>
    <link href="/ovirt-engine/api/jobs/123/steps/456/statistics" rel="statistics"/>
    <external>true</external>
    <number>2</number>
    <start_time>2016-12-13T01:06:15.380+02:00</start_time>
    <status>started</status>
    <type>validating</type>
    <job href="/ovirt-engine/api/jobs/123" id="123"/>
  </step>
  ...
</steps>
```

The order of the returned list of steps isn't guaranteed.

Table 6.614. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of steps to return.
<b>steps</b>	<a href="#">Step[]</a>	Out	A representation of steps.

#### 6.203.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.203.2.2. max

Sets the maximum number of steps to return. If not specified all the steps are returned.

## 6.204. STORAGE

Table 6.615. Methods summary

Name	Summary
<b>get</b>	

#### 6.204.1. get GET

Table 6.616. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>report_status</b>	<a href="#">Boolean</a>	In	Indicates if the status of the LUNs in the storage should be checked.
<b>storage</b>	<a href="#">HostStorage</a>	Out	

#### 6.204.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.204.1.2. report\_status

Indicates if the status of the LUNs in the storage should be checked. Checking the status of the LUN is an heavy weight operation and this data is not always needed by the user. This parameter will give the option to not perform the status check of the LUNs.

The default is **true** for backward compatibility.

Here an example with the LUN status :

```
<host_storage id="360014051136c20574f743bdbd28177fd">
  <logical_units>
    <logical_unit id="360014051136c20574f743bdbd28177fd">
      <lun_mapping>0</lun_mapping>
      <paths>1</paths>
      <product_id>lun0</product_id>
      <serial>SLIO-ORG_lun0_1136c205-74f7-43bd-bd28-177fd5ce6993</serial>
      <size>10737418240</size>
      <status>used</status>
      <vendor_id>LIO-ORG</vendor_id>
      <volume_group_id>O9Du7I-RahN-ECe1-dZ1w-nh0b-64io-MNzIBZ</volume_group_id>
    </logical_unit>
  </logical_units>
  <type>iscsi</type>
  <host id="8bb5ade5-e988-4000-8b93-dbfc6717fe50"/>
</host_storage>
```

Here an example without the LUN status :

```
<host_storage id="360014051136c20574f743bdbd28177fd">
  <logical_units>
    <logical_unit id="360014051136c20574f743bdbd28177fd">
      <lun_mapping>0</lun_mapping>
      <paths>1</paths>
      <product_id>lun0</product_id>
      <serial>SLIO-ORG_lun0_1136c205-74f7-43bd-bd28-177fd5ce6993</serial>
      <size>10737418240</size>
      <vendor_id>LIO-ORG</vendor_id>
      <volume_group_id>O9Du7I-RahN-ECe1-dZ1w-nh0b-64io-MNzIBZ</volume_group_id>
    </logical_unit>
  </logical_units>
  <type>iscsi</type>
  <host id="8bb5ade5-e988-4000-8b93-dbfc6717fe50"/>
</host_storage>
```

## 6.205. STORAGE DOMAIN

Table 6.617. Methods summary

Name	Summary
<b>get</b>	Retrieves the description of the storage domain.
<b>isattached</b>	Used for querying if the storage domain is already attached to a data center using the <code>is_attached</code> boolean field, which is part of the storage server.

Name	Summary
<b>reduceluns</b>	This operation reduces logical units from the storage domain.
<b>refreshluns</b>	This operation refreshes the LUN size.
<b>remove</b>	Removes the storage domain.
<b>update</b>	Updates a storage domain.
<b>updateovfstore</b>	This operation forces the update of the <b>OVF_STORE</b> of this storage domain.

### 6.205.1. get GET

Retrieves the description of the storage domain.

Table 6.618. Parameters summary

Name	Type	Direction	Summary
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>storage_domain</b>	StorageDomain	Out	The description of the storage domain.

#### 6.205.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.205.2. isattached POST

Used for querying if the storage domain is already attached to a data center using the `is_attached` boolean field, which is part of the storage server. **IMPORTANT:** Executing this API will cause the host to disconnect from the storage domain.

Table 6.619. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the action should be performed asynchronously.
<b>host</b>	Host	In	Indicates the data center's host.

Name	Type	Direction	Summary
<b>is_attached</b>	Boolean	Out	Indicates whether the storage domain is attached to the data center.

### 6.205.3. reduceluns POST

This operation reduces logical units from the storage domain.

In order to do so the data stored on the provided logical units will be moved to other logical units of the storage domain and only then they will be reduced from the storage domain.

For example, in order to reduce two logical units from a storage domain send a request like this:

```
POST /ovirt-engine/api/storageDomains/123/reduceluns
```

With a request body like this:

```
<action>
  <logical_units>
    <logical_unit id="1IET_00010001"/>
    <logical_unit id="1IET_00010002"/>
  </logical_units>
</action>
```

Note that this operation is only applicable to block storage domains (i.e., storage domains with the `xref:types-storage_type[storage type]` of iSCSI or FCP).

Table 6.620. Parameters summary

Name	Type	Direction	Summary
<b>logical_units</b>	LogicalUnit[]	In	The logical units that need to be reduced from the storage domain.

### 6.205.4. refreshluns POST

This operation refreshes the LUN size.

After increasing the size of the underlying LUN on the storage server, the user can refresh the LUN size. This action forces a rescan of the provided LUNs and updates the database with the new size, if required.

For example, in order to refresh the size of two LUNs send a request like this:

```
POST /ovirt-engine/api/storageDomains/262b056b-aede-40f1-9666-b883eff59d40/refreshluns
```

With a request body like this:

```

<action>
  <logical_units>
    <logical_unit id="1IET_00010001"/>
    <logical_unit id="1IET_00010002"/>
  </logical_units>
</action>

```

Table 6.621. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the refresh should be performed asynchronously.
<b>logical_units</b>	LogicalUnit[]	In	The LUNs that need to be refreshed.

### 6.205.5. remove DELETE

Removes the storage domain.

Without any special parameters, the storage domain is detached from the system and removed from the database. The storage domain can then be imported to the same or to a different setup, with all the data on it. If the storage is not accessible the operation will fail.

If the **destroy** parameter is **true** then the operation will always succeed, even if the storage is not accessible, the failure is just ignored and the storage domain is removed from the database anyway.

If the **format** parameter is **true** then the actual storage is formatted, and the metadata is removed from the LUN or directory, so it can no longer be imported to the same or to a different setup.

Table 6.622. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.
<b>destroy</b>	Boolean	In	Indicates if the operation should succeed, and the storage domain removed from the database, even if the storage is not accessible.
<b>format</b>	Boolean	In	Indicates if the actual storage should be formatted, removing all the metadata from the underlying LUN or directory:  [source] ---- DELETE /ovirt-engine/api/storageDomains/123?format=true ----  This parameter is optional, and the default value is <b>false</b> .

Name	Type	Direction	Summary
<b>host</b>	String	In	Indicates which host should be used to remove the storage domain.

### 6.205.5.1. destroy

Indicates if the operation should succeed, and the storage domain removed from the database, even if the storage is not accessible.

```
DELETE /ovirt-engine/api/storageDomains/123?destroy=true
```

This parameter is optional, and the default value is **false**. When the value of **destroy** is **true** the **host** parameter will be ignored.

### 6.205.5.2. host

Indicates which host should be used to remove the storage domain.

This parameter is mandatory, except if the **destroy** parameter is included and its value is **true**, in that case the **host** parameter will be ignored.

The value should contain the name or the identifier of the host. For example, to use the host named **myhost** to remove the storage domain with identifier **123** send a request like this:

```
DELETE /ovirt-engine/api/storageDomains/123?host=myhost
```

### 6.205.6. update PUT

Updates a storage domain.

Not all of the `StorageDomain`'s attributes are updatable after creation. Those that can be updated are: **name**, **description**, **comment**, **warning\_low\_space\_indicator**, **critical\_space\_action\_blocker** and **wipe\_after\_delete**. (Note that changing the **wipe\_after\_delete** attribute will not change the wipe after delete property of disks that already exist).

To update the **name** and **wipe\_after\_delete** attributes of a storage domain with an identifier **123**, send a request as follows:

```
PUT /ovirt-engine/api/storageDomains/123
```

With a request body as follows:

```
<storage_domain>
  <name>data2</name>
  <wipe_after_delete>true</wipe_after_delete>
</storage_domain>
```

Table 6.623. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>storage_domain</b>	StorageDomain	In/Out	The updated storage domain.

### 6.205.7. updateovfstore POST

This operation forces the update of the **OVF\_STORE** of this storage domain.

The **OVF\_STORE** is a disk image that contains the metadata of virtual machines and disks that reside in the storage domain. This metadata is used in case the domain is imported or exported to or from a different data center or a different installation.

By default the **OVF\_STORE** is updated periodically (set by default to 60 minutes) but users might want to force an update after an important change, or when they believe the **OVF\_STORE** is corrupt.

When initiated by the user, **OVF\_STORE** update will be performed whether an update is needed or not.

Table 6.624. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the <b>OVF_STORE</b> update should be performed asynchronously.

## 6.206. STORAGEDOMAINCONTENTDISK

Table 6.625. Methods summary

Name	Summary
<b>get</b>	

### 6.206.1. get GET

Table 6.626. Parameters summary

Name	Type	Direction	Summary
<b>disk</b>	Disk	Out	
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

### 6.206.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.207. STORAGEDOMAINCONTENTDISKS

Manages the set of disks available in a storage domain.

Table 6.627. Methods summary

Name	Summary
<b>list</b>	Returns the list of disks available in the storage domain.

### 6.207.1. list GET

Returns the list of disks available in the storage domain.

The order of the returned list of disks is guaranteed only if the **sortby** clause is included in the **search** parameter.

Table 6.628. Parameters summary

Name	Type	Direction	Summary
<b>case_sensitive</b>	<a href="#">Boolean</a>	In	Indicates if the search performed using the <b>search</b> parameter should be performed taking case into account.
<b>disks</b>	<a href="#">Disk[]</a>	Out	
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of disks to return.
<b>search</b>	<a href="#">String</a>	In	A query string used to restrict the returned disks.

#### 6.207.1.1. case\_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

#### 6.207.1.2. follow

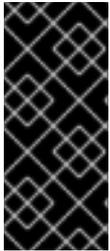
Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.207.1.3. max

Sets the maximum number of disks to return. If not specified all the disks are returned.

## 6.208. STORAGEDOMAINDISK

Manages a single disk available in a storage domain.



### IMPORTANT

Since version 4.2 of the engine this service is intended only to list disks available in the storage domain, and to register unregistered disks. All the other operations, like copying a disk, moving a disk, etc, have been deprecated and will be removed in the future. To perform those operations use the [service that manages all the disks of the system](#) or the [service that manages a specific disk](#).

Table 6.629. Methods summary

Name	Summary
<b>copy</b>	Copies a disk to the specified storage domain.
<b>export</b>	Exports a disk to an export storage domain.
<b>get</b>	Retrieves the description of the disk.
<b>move</b>	Moves a disk to another storage domain.
<b>reduce</b>	Reduces the size of the disk image.
<b>remove</b>	Removes a disk.
<b>sparsify</b>	Sparsify the disk.
<b>update</b>	Updates the disk.

### 6.208.1. copy POST

Copies a disk to the specified storage domain.



### IMPORTANT

Since version 4.2 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To copy a disk use the [copy](#) operation of the service that manages that disk.

Table 6.630. Parameters summary

Name	Type	Direction	Summary
<b>disk</b>	<a href="#">Disk</a>	In	Description of the resulting disk.

Name	Type	Direction	Summary
<b>storage_domain</b>	StorageDomain	In	The storage domain where the new disk will be created.

### 6.208.2. export POST

Exports a disk to an export storage domain.



#### IMPORTANT

Since version 4.2 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To export a disk use the [export](#) operation of the service that manages that disk.

Table 6.631. Parameters summary

Name	Type	Direction	Summary
<b>storage_domain</b>	StorageDomain	In	The export storage domain where the disk should be exported to.

### 6.208.3. get GET

Retrieves the description of the disk.

Table 6.632. Parameters summary

Name	Type	Direction	Summary
<b>disk</b>	Disk	Out	The description of the disk.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

#### 6.208.3.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.208.4. move POST

Moves a disk to another storage domain.



#### IMPORTANT

Since version 4.2 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To move a disk use the [move](#) operation of the service that manages that disk.

Table 6.633. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the move should be performed asynchronously.
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>storage_domain</b>	StorageDomain	In	The storage domain where the disk will be moved to.

### 6.208.5. reduce POST

Reduces the size of the disk image.

Invokes *reduce* on the logical volume (i.e. this is only applicable for block storage domains). This is applicable for floating disks and disks attached to non-running virtual machines. There is no need to specify the size as the optimal size is calculated automatically.

Table 6.634. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

### 6.208.6. remove DELETE

Removes a disk.

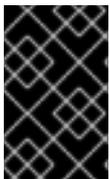


#### IMPORTANT

Since version 4.2 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To remove a disk use the [remove](#) operation of the service that manages that disk.

### 6.208.7. sparsify POST

Sparsify the disk.



#### IMPORTANT

Since version 4.2 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To remove a disk use the [remove](#) operation of the service that manages that disk.

### 6.208.8. update PUT

Updates the disk.

**IMPORTANT**

Since version 4.2 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To update a disk use the [update](#) operation of the service that manages that disk.

**Table 6.635. Parameters summary**

Name	Type	Direction	Summary
<b>disk</b>	<a href="#">Disk</a>	In/Out	The update to apply to the disk.

**6.209. STORAGEDOMAINDISKS**

Manages the collection of disks available inside a specific storage domain.

**Table 6.636. Methods summary**

Name	Summary
<b>add</b>	Adds or registers a disk.
<b>list</b>	Retrieves the list of disks that are available in the storage domain.

**6.209.1. add POST**

Adds or registers a disk.

**IMPORTANT**

Since version 4.2 of the Red Hat Virtualization Manager this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To add a new disk use the [add](#) operation of the service that manages the disks of the system. To register an unregistered disk use the [register](#) operation of the service that manages that disk.

**Table 6.637. Parameters summary**

Name	Type	Direction	Summary
<b>disk</b>	<a href="#">Disk</a>	In/Out	The disk to add or register.
<b>unregistered</b>	<a href="#">Boolean</a>	In	Indicates if a new disk should be added or if an existing unregistered disk should be registered.

**6.209.1.1. unregistered**

Indicates if a new disk should be added or if an existing unregistered disk should be registered. If the value is **true** then the identifier of the disk to register needs to be provided. For example, to register the disk with ID **456** send a request like this:

```
POST /ovirt-engine/api/storagedomains/123/disks?unregistered=true
```

With a request body like this:

```
<disk id="456"/>
```

If the value is **false** then a new disk will be created in the storage domain. In that case the **provisioned\_size**, **format**, and **name** attributes are mandatory. For example, to create a new *copy on write* disk of 1 GiB, send a request like this:

```
POST /ovirt-engine/api/storagedomains/123/disks
```

With a request body like this:

```
<disk>
  <name>mydisk</name>
  <format>cow</format>
  <provisioned_size>1073741824</provisioned_size>
</disk>
```

The default value is **false**.

This parameter has been deprecated since version 4.2 of the Red Hat Virtualization Manager.

## 6.209.2. list GET

Retrieves the list of disks that are available in the storage domain.

The order of the returned list of disks is not guaranteed.

Table 6.638. Parameters summary

Name	Type	Direction	Summary
<b>disks</b>	<a href="#">Disk[]</a>	Out	The list of retrieved disks.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of disks to return.
<b>unregistered</b>	<a href="#">Boolean</a>	In	Indicates whether to retrieve a list of registered or unregistered disks in the storage domain.

### 6.209.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.209.2.2. max

Sets the maximum number of disks to return. If not specified, all the disks are returned.

### 6.209.2.3. unregistered

Indicates whether to retrieve a list of registered or unregistered disks in the storage domain. To get a list of unregistered disks in the storage domain the call should indicate the unregistered flag. For example, to get a list of unregistered disks the REST API call should look like this:

```
GET /ovirt-engine/api/storagedomains/123/disks?unregistered=true
```

The default value of the unregistered flag is **false**. The request only applies to storage domains that are attached.

## 6.210. STORAGEDOMAINSERVERCONNECTION

Table 6.639. Methods summary

Name	Summary
<b>get</b>	
<b>remove</b>	Detaches a storage connection from storage.

### 6.210.1. get GET

Table 6.640. Parameters summary

Name	Type	Direction	Summary
<b>connection</b>	<a href="#">StorageConnection</a>	Out	
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

#### 6.210.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.210.2. remove DELETE

Detaches a storage connection from storage.

Table 6.641. Parameters summary

Name	Type	Direction	Summary
------	------	-----------	---------

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the action should be performed asynchronously.

## 6.211. STORAGEDOMAINSERVERCONNECTIONS

Manages the set of connections to storage servers that exist in a storage domain.

Table 6.642. Methods summary

Name	Summary
<b>add</b>	
<b>list</b>	Returns the list of connections to storage servers that exist in the storage domain.

### 6.211.1. add POST

Table 6.643. Parameters summary

Name	Type	Direction	Summary
<b>connection</b>	StorageConnection	In/Out	

### 6.211.2. list GET

Returns the list of connections to storage servers that exist in the storage domain.

The order of the returned list of connections isn't guaranteed.

Table 6.644. Parameters summary

Name	Type	Direction	Summary
<b>connections</b>	StorageConnection[]	Out	
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of connections to return.

#### 6.211.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.211.2.2. max

Sets the maximum number of connections to return. If not specified all the connections are returned.

## 6.212. STORAGEDOMAINTEMPLATE

Table 6.645. Methods summary

Name	Summary
<b>get</b>	
<b>import</b>	Action to import a template from an export storage domain.
<b>register</b>	Register the Template means importing the Template from the data domain by inserting the configuration of the Template and disks into the database without the copy process.
<b>remove</b>	

### 6.212.1. get GET

Table 6.646. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>template</b>	Template	Out	

#### 6.212.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.212.2. import POST

Action to import a template from an export storage domain.

For example, to import the template **456** from the storage domain **123** send the following request:

```
POST /ovirt-engine/api/storagedomains/123/templates/456/import
```

With the following request body:

```
<action>
  <storage_domain>
    <name>myexport</name>
  </storage_domain>
  <cluster>
```

```

<name>mycluster</name>
</cluster>
</action>

```

If you register an entity without specifying the cluster ID or name, the cluster name from the entity's OVF will be used (unless the register request also includes the cluster mapping).

Table 6.647. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the import should be performed asynchronously.
<b>clone</b>	Boolean	In	Use the optional <b>clone</b> parameter to generate new UUIDs for the imported template and its entities.
<b>cluster</b>	Cluster	In	
<b>exclusive</b>	Boolean	In	
<b>storage_domain</b>	StorageDomain	In	
<b>template</b>	Template	In	
<b>vm</b>	Vm	In	

### 6.212.2.1. clone

Use the optional **clone** parameter to generate new UUIDs for the imported template and its entities.

You can import a template with the **clone** parameter set to **false** when importing a template from an export domain, with templates that were exported by a different Red Hat Virtualization environment.

### 6.212.3. register POST

Register the Template means importing the Template from the data domain by inserting the configuration of the Template and disks into the database without the copy process.

Table 6.648. Parameters summary

Name	Type	Direction	Summary
<b>allow_partial_import</b>	Boolean	In	Indicates whether a template is allowed to be registered with only some of its disks.
<b>async</b>	Boolean	In	Indicates if the registration should be performed asynchronously.

Name	Type	Direction	Summary
<b>clone</b>	Boolean	In	
<b>cluster</b>	Cluster	In	
<b>exclusive</b>	Boolean	In	
<b>registration_configuration</b>	Registration Configuration	In	This parameter describes how the template should be registered.
<b>template</b>	Template	In	
<b>vnic_profile_mappings</b>	VnicProfileMapping[]	In	Deprecated attribute describing mapping rules for virtual NIC profiles that will be applied during the import\register process.

### 6.212.3.1. allow\_partial\_import

Indicates whether a template is allowed to be registered with only some of its disks.

If this flag is **true**, the system will not fail in the validation process if an image is not found, but instead it will allow the template to be registered without the missing disks. This is mainly used during registration of a template when some of the storage domains are not available. The default value is **false**.

### 6.212.3.2. registration\_configuration

This parameter describes how the template should be registered.

This parameter is optional. If the parameter is not specified, the template will be registered with the same configuration that it had in the original environment where it was created.

### 6.212.3.3. vnic\_profile\_mappings

Deprecated attribute describing mapping rules for virtual NIC profiles that will be applied during the import\register process.



#### WARNING

Please note that this attribute has been deprecated since version 4.2.1 of the engine, and preserved only for backward compatibility. It will be removed in the future. To specify **vnic\_profile\_mappings** use the **vnic\_profile\_mappings** attribute inside the [RegistrationConfiguration](#) type.

### 6.212.4. remove DELETE

Table 6.649. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

## 6.213. STORAGEDOMAINTEMPLATES

Manages the set of templates available in a storage domain.

Table 6.650. Methods summary

Name	Summary
<b>list</b>	Returns the list of templates available in the storage domain.

### 6.213.1. list GET

Returns the list of templates available in the storage domain.

The order of the returned list of templates isn't guaranteed.

Table 6.651. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of templates to return.
<b>templates</b>	Template[]	Out	
<b>unregistered</b>	Boolean	In	Indicates whether to retrieve a list of registered or unregistered templates which contain disks on the storage domain.

#### 6.213.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.213.1.2. max

Sets the maximum number of templates to return. If not specified all the templates are returned.

#### 6.213.1.3. unregistered

Indicates whether to retrieve a list of registered or unregistered templates which contain disks on the storage domain. To get a list of unregistered templates the call should indicate the unregistered flag. For example, to get a list of unregistered templates the REST API call should look like this:

```
GET /ovirt-engine/api/storagedomains/123/templates?unregistered=true
```

The default value of the unregistered flag is **false**. The request only apply to storage domains that are attached.

## 6.214. STORAGEDOMAINVM

Table 6.652. Methods summary

Name	Summary
<b>get</b>	
<b>import</b>	Imports a virtual machine from an export storage domain.
<b>register</b>	
<b>remove</b>	Deletes a virtual machine from an export storage domain.

### 6.214.1. get GET

Table 6.653. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>vm</b>	<a href="#">Vm</a>	Out	

#### 6.214.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.214.2. import POST

Imports a virtual machine from an export storage domain.

For example, send a request like this:

```
POST /ovirt-engine/api/storagedomains/123/vms/456/import
```

With a request body like this:

```
<action>
<storage_domain>
```

```

    <name>mydata</name>
  </storage_domain>
  <cluster>
    <name>mycluster</name>
  </cluster>
</action>

```

To import a virtual machine as a new entity add the **clone** parameter:

```

<action>
  <storage_domain>
    <name>mydata</name>
  </storage_domain>
  <cluster>
    <name>mycluster</name>
  </cluster>
  <clone>true</clone>
  <vm>
    <name>myvm</name>
  </vm>
</action>

```

Include an optional **disks** parameter to choose which disks to import. For example, to import the disks of the template that have the identifiers **123** and **456** send the following request body:

```

<action>
  <cluster>
    <name>mycluster</name>
  </cluster>
  <vm>
    <name>myvm</name>
  </vm>
  <disks>
    <disk id="123"/>
    <disk id="456"/>
  </disks>
</action>

```

If you register an entity without specifying the cluster ID or name, the cluster name from the entity's OVF will be used (unless the register request also includes the cluster mapping).

**Table 6.654. Parameters summary**

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the import should be performed asynchronously.
<b>clone</b>	Boolean	In	Indicates if the identifiers of the imported virtual machine should be regenerated.
<b>cluster</b>	Cluster	In	

Name	Type	Direction	Summary
<b>collapse_snapshots</b>	Boolean	In	Indicates of the snapshots of the virtual machine that is imported should be collapsed, so that the result will be a virtual machine without snapshots.
<b>exclusive</b>	Boolean	In	
<b>storage_domain</b>	StorageDomain	In	
<b>vm</b>	Vm	In	

### 6.214.2.1. clone

Indicates if the identifiers of the imported virtual machine should be regenerated.

By default when a virtual machine is imported the identifiers are preserved. This means that the same virtual machine can't be imported multiple times, as that identifiers needs to be unique. To allow importing the same machine multiple times set this parameter to **true**, as the default is **false**.

### 6.214.2.2. collapse\_snapshots

Indicates of the snapshots of the virtual machine that is imported should be collapsed, so that the result will be a virtual machine without snapshots.

This parameter is optional, and if it isn't explicitly specified the default value is **false**.

### 6.214.3. register POST

Table 6.655. Parameters summary

Name	Type	Direction	Summary
<b>allow_partial_import</b>	Boolean	In	Indicates whether a virtual machine is allowed to be registered with only some of its disks.
<b>async</b>	Boolean	In	Indicates if the registration should be performed asynchronously.
<b>clone</b>	Boolean	In	
<b>cluster</b>	Cluster	In	
<b>reassign_bad_macs</b>	Boolean	In	Indicates if the problematic MAC addresses should be re-assigned during the import process by the engine.

Name	Type	Direction	Summary
<b>registration_configuration</b>	<a href="#">Registration Configuration</a>	In	This parameter describes how the virtual machine should be registered.
<b>vm</b>	<a href="#">Vm</a>	In	
<b>vnic_profile_mappings</b>	<a href="#">VnicProfileMapping[]</a>	In	Deprecated attribute describing mapping rules for virtual NIC profiles that will be applied during the import\register process.

### 6.214.3.1. allow\_partial\_import

Indicates whether a virtual machine is allowed to be registered with only some of its disks.

If this flag is **true**, the engine will not fail in the validation process if an image is not found, but instead it will allow the virtual machine to be registered without the missing disks. This is mainly used during registration of a virtual machine when some of the storage domains are not available. The default value is **false**.

### 6.214.3.2. reassign\_bad\_mac

Indicates if the problematic MAC addresses should be re-assigned during the import process by the engine.

A MAC address would be considered as a problematic one if one of the following is true:

- It conflicts with a MAC address that is already allocated to a virtual machine in the target environment.
- It's out of the range of the target MAC address pool.

### 6.214.3.3. registration\_configuration

This parameter describes how the virtual machine should be registered.

This parameter is optional. If the parameter is not specified, the virtual machine will be registered with the same configuration that it had in the original environment where it was created.

### 6.214.3.4. vnic\_profile\_mappings

Deprecated attribute describing mapping rules for virtual NIC profiles that will be applied during the import\register process.

**WARNING**

Please note that this attribute has been deprecated since version 4.2.1 of the engine, and preserved only for backward compatibility. It will be removed in the future. To specify **vnic\_profile\_mappings** use the **vnic\_profile\_mappings** attribute inside the [RegistrationConfiguration](#) type.

**6.214.4. remove DELETE**

Deletes a virtual machine from an export storage domain.

For example, to delete the virtual machine **456** from the storage domain **123**, send a request like this:

```
DELETE /ovirt-engine/api/storagedomains/123/vms/456
```

Table 6.656. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

**6.215. STORAGEDOMAINVMDISKATTACHMENT**

Returns the details of the disks attached to a virtual machine in the export domain.

Table 6.657. Methods summary

Name	Summary
<b>get</b>	Returns the details of the attachment with all its properties and a link to the disk.

**6.215.1. get GET**

Returns the details of the attachment with all its properties and a link to the disk.

Table 6.658. Parameters summary

Name	Type	Direction	Summary
<b>attachment</b>	DiskAttachment	Out	The disk attachment.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

### 6.215.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.216. STORAGEDOMAINVMDISKATTACHMENTS

Returns the details of a disk attached to a virtual machine in the export domain.

Table 6.659. Methods summary

Name	Summary
<b>list</b>	List the disks that are attached to the virtual machine.

### 6.216.1. list GET

List the disks that are attached to the virtual machine.

The order of the returned list of disk attachments isn't guaranteed.

Table 6.660. Parameters summary

Name	Type	Direction	Summary
<b>attachments</b>	<a href="#">DiskAttachment[]</a>	Out	
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

### 6.216.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.217. STORAGEDOMAINVMS

Lists the virtual machines of an export storage domain.

For example, to retrieve the virtual machines that are available in the storage domain with identifier **123** send the following request:

```
GET /ovirt-engine/api/storagedomains/123/vms
```

This will return the following response body:

```
<vms>
  <vm id="456" href="/api/storagedomains/123/vms/456">
    <name>vm1</name>
    ...
  <storage_domain id="123" href="/api/storagedomains/123"/>
```

```

<actions>
  <link rel="import" href="/api/storagedomains/123/vms/456/import"/>
</actions>
</vm>
</vms>

```

Virtual machines and templates in these collections have a similar representation to their counterparts in the top-level `Vm` and `Template` collections, except they also contain a `StorageDomain` reference and an `import` action.

**Table 6.661. Methods summary**

Name	Summary
<b>list</b>	Returns the list of virtual machines of the export storage domain.

### 6.217.1. list GET

Returns the list of virtual machines of the export storage domain.

The order of the returned list of virtual machines isn't guaranteed.

**Table 6.662. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	<code>String</code>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<code>Integer</code>	In	Sets the maximum number of virtual machines to return.
<b>unregistered</b>	<code>Boolean</code>	In	Indicates whether to retrieve a list of registered or unregistered virtual machines which contain disks on the storage domain.
<b>vm</b>	<code>Vm[]</code>	Out	

#### 6.217.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.217.1.2. max

Sets the maximum number of virtual machines to return. If not specified all the virtual machines are returned.

#### 6.217.1.3. unregistered

Indicates whether to retrieve a list of registered or unregistered virtual machines which contain disks on the storage domain. To get a list of unregistered virtual machines the call should indicate the

unregistered flag. For example, to get a list of unregistered virtual machines the REST API call should look like this:

```
GET /ovirt-engine/api/storagedomains/123/vms?unregistered=true
```

The default value of the unregistered flag is **false**. The request only apply to storage domains that are attached.

## 6.218. STORAGEDOMAINS

Manages the set of storage domains in the system.

Table 6.663. Methods summary

Name	Summary
<b>add</b>	Adds a new storage domain.
<b>list</b>	Returns the list of storage domains in the system.

### 6.218.1. add POST

Adds a new storage domain.

Creation of a new [StorageDomain](#) requires the **name**, **type**, **host**, and **storage** attributes. Identify the **host** attribute with the **id** or **name** attributes. In Red Hat Virtualization 3.6 and later you can enable the wipe after delete option by default on the storage domain. To configure this, specify **wipe\_after\_delete** in the POST request. This option can be edited after the domain is created, but doing so will not change the wipe after delete property of disks that already exist.

To add a new storage domain with specified **name**, **type**, **storage.type**, **storage.address**, and **storage.path**, and using a host with an id **123**, send a request like this:

```
POST /ovirt-engine/api/storageDomains
```

With a request body like this:

```
<storage_domain>
  <name>mydata</name>
  <type>data</type>
  <storage>
    <type>nfs</type>
    <address>my nfs.example.com</address>
    <path>/exports/mydata</path>
  </storage>
  <host>
    <name>myhost</name>
  </host>
</storage_domain>
```

To create a new NFS ISO storage domain send a request like this:

```

<storage_domain>
  <name>myisos</name>
  <type>iso</type>
  <storage>
    <type>nfs</type>
    <address>my nfs.example.com</address>
    <path>/export/myisos</path>
  </storage>
  <host>
    <name>myhost</name>
  </host>
</storage_domain>

```

To create a new iSCSI storage domain send a request like this:

```

<storage_domain>
  <name>myiscsi</name>
  <type>data</type>
  <storage>
    <type>iscsi</type>
    <logical_units>
      <logical_unit id="3600144f09dbd050000004eedbd340001"/>
      <logical_unit id="3600144f09dbd050000004eedbd340002"/>
    </logical_units>
  </storage>
  <host>
    <name>myhost</name>
  </host>
</storage_domain>

```

Table 6.664. Parameters summary

Name	Type	Direction	Summary
<b>storage_domain</b>	<a href="#">StorageDomain</a>	In/Out	The storage domain to add.

### 6.218.2. list GET

Returns the list of storage domains in the system.

The order of the returned list of storage domains is guaranteed only if the **sortby** clause is included in the **search** parameter.

Table 6.665. Parameters summary

Name	Type	Direction	Summary
<b>case_sensitive</b>	<a href="#">Boolean</a>	In	Indicates if the search should be performed taking case into account.

Name	Type	Direction	Summary
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of storage domains to return.
<b>search</b>	String	In	A query string used to restrict the returned storage domains.
<b>storage_domains</b>	StorageDomain[]	Out	A list of the storage domains in the system.

### 6.218.2.1. case\_sensitive

Indicates if the search should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case, set it to **false**.

### 6.218.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.218.2.3. max

Sets the maximum number of storage domains to return. If not specified, all the storage domains are returned.

## 6.219. STORAGE SERVER CONNECTION

Table 6.666. Methods summary

Name	Summary
<b>get</b>	
<b>remove</b>	Removes a storage connection.
<b>update</b>	Updates the storage connection.

### 6.219.1. get GET

Table 6.667. Parameters summary

Name	Type	Direction	Summary
<b>connection</b>	<a href="#">StorageConnection</a>	Out	
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

### 6.219.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.219.2. remove DELETE

Removes a storage connection.

A storage connection can only be deleted if neither storage domain nor LUN disks reference it. The host name or id is optional; providing it disconnects (unmounts) the connection from that host.

**Table 6.668. Parameters summary**

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the remove should be performed asynchronously.
<b>host</b>	<a href="#">String</a>	In	The name or identifier of the host from which the connection would be unmounted (disconnected).

#### 6.219.2.1. host

The name or identifier of the host from which the connection would be unmounted (disconnected). If not provided, no host will be disconnected.

For example, to use the host with identifier **456** to delete the storage connection with identifier **123** send a request like this:

```
DELETE /ovirt-engine/api/storageconnections/123?host=456
```

#### 6.219.3. update PUT

Updates the storage connection.

For example, to change the address of an NFS storage server, send a request like this:

```
PUT /ovirt-engine/api/storageconnections/123
```

With a request body like this:

```
<storage_connection>
  <address>mynewnfs.example.com</address>
</storage_connection>
```

To change the connection of an iSCSI storage server, send a request like this:

```
PUT /ovirt-engine/api/storageconnections/123
```

With a request body like this:

```
<storage_connection>
  <port>3260</port>
  <target>iqn.2017-01.com.myhost:444</target>
</storage_connection>
```

Table 6.669. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>connection</b>	StorageConnection	In/Out	
<b>force</b>	Boolean	In	Indicates if the operation should succeed regardless to the relevant storage domain's status (i.e. updating is also applicable when storage domain's status is not maintenance).

### 6.219.3.1. force

Indicates if the operation should succeed regardless to the relevant storage domain's status (i.e. updating is also applicable when storage domain's status is not maintenance).

This parameter is optional, and the default value is **false**.

## 6.220. STORAGESERVERCONNECTIONEXTENSION

Table 6.670. Methods summary

Name	Summary
<b>get</b>	
<b>remove</b>	
<b>update</b>	Update a storage server connection extension for the given host.

### 6.220.1. get GET

Table 6.671. Parameters summary

Name	Type	Direction	Summary
<b>extension</b>	<a href="#">StorageConnectionExtension</a>	Out	
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

### 6.220.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.220.2. remove DELETE

Table 6.672. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the remove should be performed asynchronously.

### 6.220.3. update PUT

Update a storage server connection extension for the given host.

To update the storage connection **456** of host **123** send a request like this:

```
PUT /ovirt-engine/api/hosts/123/storageconnectionextensions/456
```

With a request body like this:

```
<storage_connection_extension>
  <target>iqn.2016-01.com.example:mytarget</target>
  <username>myuser</username>
  <password>mypassword</password>
</storage_connection_extension>
```

Table 6.673. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the update should be performed asynchronously.
<b>extension</b>	<a href="#">StorageConnectionExtension</a>	In/Out	

## 6.221. STORAGESEVERCONNECTIONEXTENSIONS

Table 6.674. Methods summary

Name	Summary
<b>add</b>	Creates a new storage server connection extension for the given host.
<b>list</b>	Returns the list os storage connection extensions.

### 6.221.1. add POST

Creates a new storage server connection extension for the given host.

The extension lets the user define credentials for an iSCSI target for a specific host. For example to use **myuser** and **mypassword** as the credentials when connecting to the iSCSI target from host **123** send a request like this:

```
POST /ovirt-engine/api/hosts/123/storageconnectionextensions
```

With a request body like this:

```
<storage_connection_extension>
  <target>iqn.2016-01.com.example:mytarget</target>
  <username>myuser</username>
  <password>mypassword</password>
</storage_connection_extension>
```

Table 6.675. Parameters summary

Name	Type	Direction	Summary
<b>extension</b>	<a href="#">StorageConnectionExtension</a>	In/Out	

### 6.221.2. list GET

Returns the list os storage connection extensions.

The order of the returned list of storage connections isn't guaranteed.

Table 6.676. Parameters summary

Name	Type	Direction	Summary
<b>extensions</b>	<a href="#">StorageConnectionExtension[]</a>	Out	

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of extensions to return.

### 6.221.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.221.2.2. max

Sets the maximum number of extensions to return. If not specified all the extensions are returned.

## 6.222. STORAGESEVERCONNECTIONS

Table 6.677. Methods summary

Name	Summary
<b>add</b>	Creates a new storage connection.
<b>list</b>	Returns the list of storage connections.

### 6.222.1. add POST

Creates a new storage connection.

For example, to create a new storage connection for the NFS server **my nfs.example.com** and NFS share **/export/mydata** send a request like this:

```
POST /ovirt-engine/api/storageconnections
```

With a request body like this:

```
<storage_connection>
  <type>nfs</type>
  <address>my nfs.example.com</address>
  <path>/export/mydata</path>
  <host>
    <name>myhost</name>
  </host>
</storage_connection>
```

Table 6.678. Parameters summary

Name	Type	Direction	Summary
<b>connection</b>	<a href="#">StorageConnection</a>	In/Out	

### 6.222.2. list GET

Returns the list of storage connections.

The order of the returned list of connections isn't guaranteed.

Table 6.679. Parameters summary

Name	Type	Direction	Summary
<b>connections</b>	<a href="#">StorageConnection[]</a>	Out	
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of connections to return.

#### 6.222.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.222.2.2. max

Sets the maximum number of connections to return. If not specified all the connections are returned.

## 6.223. SYSTEM

Table 6.680. Methods summary

Name	Summary
<b>get</b>	Returns basic information describing the API, like the product name, the version number and a summary of the number of relevant objects.
<b>reloadconfigurations</b>	

### 6.223.1. get GET

Returns basic information describing the API, like the product name, the version number and a summary of the number of relevant objects.

## GET /ovirt-engine/api

We get following response:

```

<api>
  <link rel="capabilities" href="/api/capabilities"/>
  <link rel="clusters" href="/api/clusters"/>
  <link rel="clusters/search" href="/api/clusters?search={query}"/>
  <link rel="datacenters" href="/api/datacenters"/>
  <link rel="datacenters/search" href="/api/datacenters?search={query}"/>
  <link rel="events" href="/api/events"/>
  <link rel="events/search" href="/api/events?search={query}"/>
  <link rel="hosts" href="/api/hosts"/>
  <link rel="hosts/search" href="/api/hosts?search={query}"/>
  <link rel="networks" href="/api/networks"/>
  <link rel="roles" href="/api/roles"/>
  <link rel="storagedomains" href="/api/storagedomains"/>
  <link rel="storagedomains/search" href="/api/storagedomains?search={query}"/>
  <link rel="tags" href="/api/tags"/>
  <link rel="templates" href="/api/templates"/>
  <link rel="templates/search" href="/api/templates?search={query}"/>
  <link rel="users" href="/api/users"/>
  <link rel="groups" href="/api/groups"/>
  <link rel="domains" href="/api/domains"/>
  <link rel="vmpools" href="/api/vmpools"/>
  <link rel="vmpools/search" href="/api/vmpools?search={query}"/>
  <link rel="vms" href="/api/vms"/>
  <link rel="vms/search" href="/api/vms?search={query}"/>
  <product_info>
    <name>oVirt Engine</name>
    <vendor>ovirt.org</vendor>
    <version>
      <build>4</build>
      <full_version>4.0.4</full_version>
      <major>4</major>
      <minor>0</minor>
      <revision>0</revision>
    </version>
  </product_info>
  <special_objects>
    <blank_template href="/ovirt-engine/api/templates/00000000-0000-0000-0000-000000000000"
id="00000000-0000-0000-0000-000000000000"/>
    <root_tag href="/ovirt-engine/api/tags/00000000-0000-0000-0000-000000000000" id="00000000-
0000-0000-0000-000000000000"/>
  </special_objects>
  <summary>
    <hosts>
      <active>0</active>
      <total>0</total>
    </hosts>
    <storage_domains>
      <active>0</active>
      <total>1</total>
    </storage_domains>
    <users>

```

```

    <active>1</active>
    <total>1</total>
  </users>
  <vms>
    <active>0</active>
    <total>0</total>
  </vms>
</summary>
<time>2016-09-14T12:00:48.132+02:00</time>
</api>

```

The entry point provides a user with links to the collections in a virtualization environment. The **rel** attribute of each collection link provides a reference point for each link.

The entry point also contains other data such as **product\_info**, **special\_objects** and **summary**.

Table 6.681. Parameters summary

Name	Type	Direction	Summary
<b>api</b>	<a href="#">Api</a>	Out	
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

#### 6.223.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.223.2. reloadconfigurations POST

Table 6.682. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the reload should be performed asynchronously.

### 6.224. SYSTEMOPTION

A service that provides values of specific configuration option of the system.

Table 6.683. Methods summary

Name	Summary
<b>get</b>	Get the values of specific configuration option.

#### 6.224.1. get GET

Get the values of specific configuration option.

For example to retrieve the values of configuration option **MigrationPolicies** send a request like this:

```
GET /ovirt-engine/api/options/MigrationPolicies
```

The response to that request will be the following:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<system_option href="/ovirt-engine/api/options/MigrationPolicies" id="MigrationPolicies">
  <name>MigrationPolicies</name>
  <values>
    <system_option_value>
      <value>[{"id":{"uuid":"80554327-0569-496b-bdeb-fcbbf52b827b"},...}]</value>
      <version>4.2</version>
    </system_option_value>
    <system_option_value>
      <value>[{"id":{"uuid":"80554327-0569-496b-bdeb-fcbbf52b827b"},...}]</value>
      <version>4.3</version>
    </system_option_value>
    <system_option_value>
      <value>[{"id":{"uuid":"80554327-0569-496b-bdeb-fcbbf52b827b"},...}]</value>
      <version>4.4</version>
    </system_option_value>
    <system_option_value>
      <value>[{"id":{"uuid":"80554327-0569-496b-bdeb-fcbbf52b827b"},...}]</value>
      <version>4.5</version>
    </system_option_value>
    <system_option_value>
      <value>[{"id":{"uuid":"80554327-0569-496b-bdeb-fcbbf52b827b"},...}]</value>
      <version>4.6</version>
    </system_option_value>
    <system_option_value>
      <value>[{"id":{"uuid":"80554327-0569-496b-bdeb-fcbbf52b827b"},...}]</value>
      <version>4.7</version>
    </system_option_value>
  </values>
</system_option>
```



#### NOTE

The appropriate permissions are required to query configuration options. Some options can be queried only by users with administrator permissions.



#### IMPORTANT

There is NO backward compatibility and no guarantee about the names or values of the options. Options may be removed and their meaning can be changed at any point.

We strongly discourage the use of this service for applications other than the ones that are released simultaneously with the engine. Usage by other applications is not supported. Therefore there will be no documentation listing accessible configuration options.

Table 6.684. Parameters summary

Name	Type	Direction	Summary
<b>option</b>	SystemOption	Out	The returned configuration option of the system.
<b>version</b>	String	In	Optional version parameter that specifies that only particular version of the configuration option should be returned.

### 6.224.1.1. version

Optional version parameter that specifies that only particular version of the configuration option should be returned. If this parameter isn't used then all the versions will be returned.

For example, to get the value of the **MigrationPolicies** option but only for version **4.2** send a request like this:

```
GET /ovirt-engine/api/options/MigrationPolicies?version=4.2
```

The response to that request will be like this:

```
<system_option href="/ovirt-engine/api/options/MigrationPolicies" id="MigrationPolicies">
  <name>MigrationPolicies</name>
  <values>
    <system_option_value>
      <value>[{"id":{"uuid":"80554327-0569-496b-bdeb-fcbbf52b827b"},...}]</value>
      <version>4.2</version>
    </system_option_value>
  </values>
</system_option>
```

## 6.225. SYSTEMOPTIONS

Service that provides values of configuration options of the system.

## 6.226. SYSTEMPERMISSIONS

This service doesn't add any new methods, it is just a placeholder for the annotation that specifies the path of the resource that manages the permissions assigned to the system object.

Table 6.685. Methods summary

Name	Summary
<b>add</b>	Assign a new permission to a user or group for specific entity.
<b>list</b>	List all the permissions of the specific entity.

### 6.226.1. add POST

Assign a new permission to a user or group for specific entity.

For example, to assign the **UserVmManager** role to the virtual machine with id **123** to the user with id **456** send a request like this:

```
POST /ovirt-engine/api/vms/123/permissions
```

With a request body like this:

```
<permission>
  <role>
    <name>UserVmManager</name>
  </role>
  <user id="456"/>
</permission>
```

To assign the **SuperUser** role to the system to the user with id **456** send a request like this:

```
POST /ovirt-engine/api/permissions
```

With a request body like this:

```
<permission>
  <role>
    <name>SuperUser</name>
  </role>
  <user id="456"/>
</permission>
```

If you want to assign permission to the group instead of the user please replace the **user** element with the **group** element with proper **id** of the group. For example to assign the **UserRole** role to the cluster with id **123** to the group with id **789** send a request like this:

```
POST /ovirt-engine/api/clusters/123/permissions
```

With a request body like this:

```
<permission>
  <role>
    <name>UserRole</name>
  </role>
  <group id="789"/>
</permission>
```

Table 6.686. Parameters summary

Name	Type	Direction	Summary
<b>permission</b>	Permission	In/Out	The permission.

## 6.226.2. list GET

List all the permissions of the specific entity.

For example to list all the permissions of the cluster with id **123** send a request like this:

```
GET /ovirt-engine/api/clusters/123/permissions
```

```
<permissions>
  <permission id="456">
    <cluster id="123"/>
    <role id="789"/>
    <user id="451"/>
  </permission>
  <permission id="654">
    <cluster id="123"/>
    <role id="789"/>
    <group id="127"/>
  </permission>
</permissions>
```

The order of the returned permissions isn't guaranteed.

Table 6.687. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>permissions</b>	Permission[]	Out	The list of permissions.

### 6.226.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.227. TAG

A service to manage a specific tag in the system.

Table 6.688. Methods summary

Name	Summary
<b>get</b>	Gets the information about the tag.
<b>remove</b>	Removes the tag from the system.
<b>update</b>	Updates the tag entity.

### 6.227.1. get GET

Gets the information about the tag.

For example to retrieve the information about the tag with the id **123** send a request like this:

```
GET /ovirt-engine/api/tags/123
```

```
<tag href="/ovirt-engine/api/tags/123" id="123">
  <name>root</name>
  <description>root</description>
</tag>
```

Table 6.689. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>tag</b>	Tag	Out	The tag.

#### 6.227.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.227.2. remove DELETE

Removes the tag from the system.

For example to remove the tag with id **123** send a request like this:

```
DELETE /ovirt-engine/api/tags/123
```

Table 6.690. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

### 6.227.3. update PUT

Updates the tag entity.

For example to update parent tag to tag with id **456** of the tag with id **123** send a request like this:

```
PUT /ovirt-engine/api/tags/123
```

With request body like:

-

```
<tag>
  <parent id="456"/>
</tag>
```

You may also specify a tag name instead of id. For example to update parent tag to tag with name **mytag** of the tag with id **123** send a request like this:

```
<tag>
  <parent>
    <name>mytag</name>
  </parent>
</tag>
```

Table 6.691. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>tag</b>	Tag	In/Out	The updated tag.

## 6.228. TAGS

Represents a service to manage collection of the tags in the system.

Table 6.692. Methods summary

Name	Summary
<b>add</b>	Add a new tag to the system.
<b>list</b>	List the tags in the system.

### 6.228.1. add POST

Add a new tag to the system.

For example, to add new tag with name **mytag** to the system send a request like this:

```
POST /ovirt-engine/api/tags
```

With a request body like this:

```
<tag>
  <name>mytag</name>
</tag>
```

**NOTE**

The root tag is a special pseudo-tag assumed as the default parent tag if no parent tag is specified. The root tag cannot be deleted nor assigned a parent tag.

To create new tag with specific parent tag send a request body like this:

```
<tag>
  <name>mytag</name>
  <parent>
    <name>myparenttag</name>
  </parent>
</tag>
```

Table 6.693. Parameters summary

Name	Type	Direction	Summary
<b>tag</b>	Tag	In/Out	The added tag.

### 6.228.2. list GET

List the tags in the system.

For example to list the full hierarchy of the tags in the system send a request like this:

```
GET /ovirt-engine/api/tags
```

```
<tags>
  <tag href="/ovirt-engine/api/tags/222" id="222">
    <name>root2</name>
    <description>root2</description>
    <parent href="/ovirt-engine/api/tags/111" id="111"/>
  </tag>
  <tag href="/ovirt-engine/api/tags/333" id="333">
    <name>root3</name>
    <description>root3</description>
    <parent href="/ovirt-engine/api/tags/222" id="222"/>
  </tag>
  <tag href="/ovirt-engine/api/tags/111" id="111">
    <name>root</name>
    <description>root</description>
  </tag>
</tags>
```

In the previous XML output you can see the following hierarchy of the tags:

```
root:    (id: 111)
  - root2 (id: 222)
  - root3 (id: 333)
```

The order of the returned list of tags isn't guaranteed.

Table 6.694. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of tags to return.
<b>tags</b>	Tag[]	Out	List of all tags in the system.

### 6.228.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.228.2.2. max

Sets the maximum number of tags to return. If not specified all the tags are returned.

## 6.229. TEMPLATE

Manages the virtual machine template and template versions.

Table 6.695. Methods summary

Name	Summary
<b>export</b>	Exports a template to the data center export domain.
<b>get</b>	Returns the information about this template or template version.
<b>remove</b>	Removes a virtual machine template.
<b>update</b>	Updates the template.

### 6.229.1. export POST

Exports a template to the data center export domain.

For example, send the following request:

```
POST /ovirt-engine/api/templates/123/export
```

With a request body like this:

```
<action>
  <storage_domain id="456"/>
  <exclusive>true</exclusive>
</action>
```

Since version 4.2 of the engine it is also possible to export a template as a virtual appliance (OVA). For example, to export template **123** as an OVA file named **myvm.ova** that is placed in the directory **/home/ovirt/** on host **myhost**:

```
POST /ovirt-engine/api/templates/123/export
```

With a request body like this:

```
<action>
  <host>
    <name>myhost</name>
  </host>
  <directory>/home/ovirt</directory>
  <filename>myvm.ova</filename>
</action>
```

Table 6.696. Parameters summary

Name	Type	Direction	Summary
<b>exclusive</b>	Boolean	In	Indicates if the existing templates with the same name should be overwritten.
<b>storage_domain</b>	StorageDomain	In	Specifies the destination export storage domain.

### 6.229.1.1. exclusive

Indicates if the existing templates with the same name should be overwritten.

The export action reports a failed action if a template of the same name exists in the destination domain. Set this parameter to **true** to change this behavior and overwrite any existing template.

### 6.229.2. get GET

Returns the information about this template or template version.

Table 6.697. Parameters summary

Name	Type	Direction	Summary
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>template</b>	Template	Out	The information about the template or template version.

#### 6.229.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.229.3. remove DELETE

Removes a virtual machine template.

```
DELETE /ovirt-engine/api/templates/123
```

Table 6.698. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the removal should be performed asynchronously.

### 6.229.4. update PUT

Updates the template.

The **name**, **description**, **type**, **memory**, **cpu**, **topology**, **os**, **high\_availability**, **display**, **stateless**, **usb**, and **timezone** elements can be updated after a template has been created.

For example, to update a template so that it has 1 GiB of memory send a request like this:

```
PUT /ovirt-engine/api/templates/123
```

With the following request body:

```
<template>
  <memory>1073741824</memory>
</template>
```

The **version\_name** name attribute is the only one that can be updated within the **version** attribute used for template versions:

```
<template>
  <version>
    <version_name>mytemplate_2</version_name>
  </version>
</template>
```

Table 6.699. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>template</b>	Template	In/Out	

## 6.230. TEMPLATECDROM

A service managing a CD-ROM device on templates.

Table 6.700. Methods summary

Name	Summary
<b>get</b>	Returns the information about this CD-ROM device.

### 6.230.1. get GET

Returns the information about this CD-ROM device.

For example, to get information about the CD-ROM device of template **123** send a request like:

```
GET /ovirt-engine/api/templates/123/cdroms/
```

Table 6.701. Parameters summary

Name	Type	Direction	Summary
<b>cdrom</b>	<a href="#">Cdrom</a>	Out	The information about the CD-ROM device.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

#### 6.230.1.1. cdrom

The information about the CD-ROM device.

The information consists of **cdrom** attribute containing reference to the CD-ROM device, the template, and optionally the inserted disk.

If there is a disk inserted then the **file** attribute will contain a reference to the ISO image:

```
<cdrom href="..." id="00000000-0000-0000-0000-000000000000">
  <template href="/ovirt-engine/api/templates/123" id="123"/>
  <file id="mycd.iso"/>
</cdrom>
```

If there is no disk inserted then the **file** attribute won't be reported:

```
<cdrom href="..." id="00000000-0000-0000-0000-000000000000">
  <template href="/ovirt-engine/api/templates/123" id="123"/>
</cdrom>
```

#### 6.230.1.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.231. TEMPLATECDROMS

Lists the CD-ROM devices of a template.

Table 6.702. Methods summary

Name	Summary
<b>list</b>	Returns the list of CD-ROM devices of the template.

### 6.231.1. list GET

Returns the list of CD-ROM devices of the template.

The order of the returned list of CD-ROM devices isn't guaranteed.

Table 6.703. Parameters summary

Name	Type	Direction	Summary
<b>cdroms</b>	<a href="#">Cdrom[]</a>	Out	The list of CD-ROM devices of the template.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of CD-ROMs to return.

#### 6.231.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.231.1.2. max

Sets the maximum number of CD-ROMs to return. If not specified all the CD-ROMs are returned.

## 6.232. TEMPLATEDISK

Table 6.704. Methods summary

Name	Summary
<b>copy</b>	Copy the specified disk attached to the template to a specific storage domain.
<b>export</b>	
<b>get</b>	
<b>remove</b>	

### 6.232.1. copy POST

Copy the specified disk attached to the template to a specific storage domain.

Table 6.705. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the copy should be performed asynchronously.
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>storage_domain</b>	StorageDomain	In	

### 6.232.2. export POST

Table 6.706. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the export should be performed asynchronously.
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>storage_domain</b>	StorageDomain	In	

### 6.232.3. get GET

Table 6.707. Parameters summary

Name	Type	Direction	Summary
<b>disk</b>	Disk	Out	
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

#### 6.232.3.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.232.4. remove DELETE

Table 6.708. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

## 6.233. TEMPLATEDISKATTACHMENT

This service manages the attachment of a disk to a template.

Table 6.709. Methods summary

Name	Summary
<b>get</b>	Returns the details of the attachment.
<b>remove</b>	Removes the disk from the template.

### 6.233.1. get GET

Returns the details of the attachment.

Table 6.710. Parameters summary

Name	Type	Direction	Summary
<b>attachment</b>	DiskAttachment	Out	
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

#### 6.233.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.233.2. remove DELETE

Removes the disk from the template. The disk will only be removed if there are other existing copies of the disk on other storage domains.

A storage domain has to be specified to determine which of the copies should be removed (template disks can have copies on multiple storage domains).

```
DELETE /ovirt-engine/api/templates/{template:id}/diskattachments/{attachment:id}?
storage_domain=072fbaa1-08f3-4a40-9f34-a5ca22dd1d74
```

Table 6.711. Parameters summary

Name	Type	Direction	Summary
<b>force</b>	Boolean	In	
<b>storage_domain</b>	String	In	Specifies the identifier of the storage domain the image to be removed resides on.

## 6.234. TEMPLATEDISKATTACHMENTS

This service manages the set of disks attached to a template. Each attached disk is represented by a [DiskAttachment](#).

Table 6.712. Methods summary

Name	Summary
<b>list</b>	List the disks that are attached to the template.

### 6.234.1. list GET

List the disks that are attached to the template.

The order of the returned list of attachments isn't guaranteed.

Table 6.713. Parameters summary

Name	Type	Direction	Summary
<b>attachments</b>	DiskAttachment[]	Out	
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

#### 6.234.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.235. TEMPLATEDISKS

Table 6.714. Methods summary

Name	Summary
<b>list</b>	Returns the list of disks of the template.

### 6.235.1. list GET

Returns the list of disks of the template.

The order of the returned list of disks isn't guaranteed.

**Table 6.715. Parameters summary**

Name	Type	Direction	Summary
<b>disks</b>	<a href="#">Disk[]</a>	Out	
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of disks to return.

#### 6.235.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.235.1.2. max

Sets the maximum number of disks to return. If not specified all the disks are returned.

## 6.236. TEMPLATEGRAPHICSCONSOLE

**Table 6.716. Methods summary**

Name	Summary
<b>get</b>	Gets graphics console configuration of the template.
<b>remove</b>	Remove the graphics console from the template.

### 6.236.1. get GET

Gets graphics console configuration of the template.

**Table 6.717. Parameters summary**

Name	Type	Direction	Summary
<b>console</b>	<a href="#">GraphicsConsole</a>	Out	The information about the graphics console of the template.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

#### 6.236.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.236.2. remove DELETE

Remove the graphics console from the template.

Table 6.718. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

## 6.237. TEMPLATEGRAPHICSCONSOLES

Table 6.719. Methods summary

Name	Summary
<b>add</b>	Add new graphics console to the template.
<b>list</b>	Lists all the configured graphics consoles of the template.

### 6.237.1. add POST

Add new graphics console to the template.

Table 6.720. Parameters summary

Name	Type	Direction	Summary
<b>console</b>	GraphicsConsole	In/Out	

### 6.237.2. list GET

Lists all the configured graphics consoles of the template.

The order of the returned list of graphics consoles isn't guaranteed.

Table 6.721. Parameters summary

Name	Type	Direction	Summary
<b>consoles</b>	GraphicsConsole[]	Out	The list of graphics consoles of the template.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of consoles to return.

### 6.237.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.237.2.2. max

Sets the maximum number of consoles to return. If not specified all the consoles are returned.

## 6.238. TEMPLATEMEDIATEDDEVICE

Table 6.722. Methods summary

Name	Summary
<b>get</b>	Gets mediated device configuration of the template.
<b>remove</b>	Remove the mediated device from the template.
<b>update</b>	Updates the information about the mediated device.

### 6.238.1. get GET

Gets mediated device configuration of the template.

Table 6.723. Parameters summary

Name	Type	Direction	Summary
<b>device</b>	<a href="#">VmMediated Device</a>	Out	The information about the mediated device of the template.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

#### 6.238.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.238.2. remove DELETE

Remove the mediated device from the template.

Table 6.724. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

### 6.238.3. update PUT

Updates the information about the mediated device.

You can update the information using **specParams** element.

For example, to update a mediated device, send a request like this:

```
PUT /ovirt-engine/api/templates/123/mediateddevices/00000000-0000-0000-0000-000000000000
<vm_mediated_device>
  <spec_params>
    <property>
      <name>mdevType</name>
      <value>nvidia-11</value>
    </property>
  </spec_params>
</vm_mediated_device>
```

with response body:

```
<vm_mediated_device href="/ovirt-engine/api/templates/123/mediateddevices/00000000-0000-0000-0000-000000000000" id="00000000-0000-0000-0000-000000000000">
  <template href="/ovirt-engine/api/templates/123" id="123"/>
  <spec_params>
    <property>
      <name>mdevType</name>
      <value>nvidia-11</value>
    </property>
  </spec_params>
</vm_mediated_device>
```

Table 6.725. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>devices</b>	VmMediated Device	In/Out	The information about the mediated device.

#### 6.238.3.1. devices

The information about the mediated device.

The request data must contain **specParams** properties. The response data contains complete information about the updated mediated device.

## 6.239. TEMPLATEMEDIATEDDEVICES

A service that manages mediated devices of a template.

Table 6.726. Methods summary

Name	Summary
<b>add</b>	Add new mediated device to the template.
<b>list</b>	Lists all the configured mediated devices of the template.

### 6.239.1. add POST

Add new mediated device to the template.

Table 6.727. Parameters summary

Name	Type	Direction	Summary
<b>device</b>	<a href="#">VmMediated Device</a>	In/Out	

### 6.239.2. list GET

Lists all the configured mediated devices of the template.

The order of the returned list of mediated devices isn't guaranteed.

Table 6.728. Parameters summary

Name	Type	Direction	Summary
<b>devices</b>	<a href="#">VmMediated Device[]</a>	Out	The list of mediated devices of the template.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of mediated devices to return.

#### 6.239.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.239.2.2. max

Sets the maximum number of mediated devices to return. If not specified all the mediated devices are returned.

## 6.240. TEMPLATENIC

Table 6.729. Methods summary

Name	Summary
<b>get</b>	
<b>remove</b>	
<b>update</b>	Update the specified network interface card attached to the template.

### 6.240.1. get GET

Table 6.730. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>nic</b>	<a href="#">Nic</a>	Out	

#### 6.240.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.240.2. remove DELETE

Table 6.731. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the remove should be performed asynchronously.

### 6.240.3. update PUT

Update the specified network interface card attached to the template.

Table 6.732. Parameters summary

Name	Type	Direction	Summary
------	------	-----------	---------

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>nic</b>	Nic	In/Out	

## 6.241. TEMPLATENICS

Table 6.733. Methods summary

Name	Summary
<b>add</b>	Add a new network interface card to the template.
<b>list</b>	Returns the list of NICs of the template.

### 6.241.1. add POST

Add a new network interface card to the template.

Table 6.734. Parameters summary

Name	Type	Direction	Summary
<b>nic</b>	Nic	In/Out	

### 6.241.2. list GET

Returns the list of NICs of the template.

The order of the returned list of NICs isn't guaranteed.

Table 6.735. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of NICs to return.
<b>nics</b>	Nic[]	Out	

#### 6.241.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.241.2.2. max

Sets the maximum number of NICs to return. If not specified all the NICs are returned.

## 6.242. TEMPLATEWATCHDOG

Table 6.736. Methods summary

Name	Summary
<b>get</b>	
<b>remove</b>	
<b>update</b>	Update the watchdog for the template identified by the given id.

### 6.242.1. get GET

Table 6.737. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>watchdog</b>	<a href="#">Watchdog</a>	Out	

#### 6.242.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.242.2. remove DELETE

Table 6.738. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the remove should be performed asynchronously.

### 6.242.3. update PUT

Update the watchdog for the template identified by the given id.

Table 6.739. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>watchdog</b>	Watchdog	In/Out	

## 6.243. TEMPLATEWATCHDOGS

Table 6.740. Methods summary

Name	Summary
<b>add</b>	Add a watchdog to the template identified by the given id.
<b>list</b>	Returns the list of watchdogs.

### 6.243.1. add POST

Add a watchdog to the template identified by the given id.

Table 6.741. Parameters summary

Name	Type	Direction	Summary
<b>watchdog</b>	Watchdog	In/Out	

### 6.243.2. list GET

Returns the list of watchdogs.

The order of the returned list of watchdogs isn't guaranteed.

Table 6.742. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of watchdogs to return.
<b>watchdogs</b>	Watchdog[]	Out	

#### 6.243.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.243.2.2. max

Sets the maximum number of watchdogs to return. If not specified all the watchdogs are returned.

## 6.244. TEMPLATES

This service manages the virtual machine templates available in the system.

Table 6.743. Methods summary

Name	Summary
<b>add</b>	Creates a new template.
<b>list</b>	Returns the list of virtual machine templates.

### 6.244.1. add POST

Creates a new template.

This requires the **name** and **vm** elements. To identify the virtual machine use the **vm.id** or **vm.name** attributes. For example, to create a template from a virtual machine with the identifier **123** send a request like this:

```
POST /ovirt-engine/api/templates
```

With a request body like this:

```
<template>
  <name>mytemplate</name>
  <vm id="123"/>
</template>
```

Since version 4.3, in order to create virtual machine template from a snapshot send a request body like this:

```
<template>
  <name>mytemplate</name>
  <vm id="123">
    <snapshots>
      <snapshot id="456"/>
    </snapshots>
  </vm>
</template>
```

The disks of the template can be customized, making some of their characteristics different from the disks of the original virtual machine. To do so use the **vm.disk\_attachments** attribute, specifying the identifier of the disk of the original virtual machine and the characteristics that you want to change. For

example, if the original virtual machine has a disk with the identifier **456**, and, for that disk, you want to change the name to **mydisk** the format to *Copy On Write* and make it *sparse*, send a request body like this:

```
<template>
  <name>mytemplate</name>
  <vm id="123">
    <disk_attachments>
      <disk_attachment>
        <disk id="456">
          <name>mydisk</name>
          <format>cow</format>
          <sparse>>true</sparse>
        </disk>
      </disk_attachment>
    </disk_attachments>
  </vm>
</template>
```

The template can be created as a sub-version of an existing template. This requires the **name** and **vm** attributes for the new template, and the **base\_template** and **version\_name** attributes for the new template version. The **base\_template** and **version\_name** attributes must be specified within a **version** section enclosed in the **template** section. Identify the virtual machine with the **id** or **name** attributes.

```
<template>
  <name>mytemplate</name>
  <vm id="123"/>
  <version>
    <base_template id="456"/>
    <version_name>mytemplate_001</version_name>
  </version>
</template>
```

The destination storage domain of the template can be customized, in one of two ways:

1. Globally, at the request level. The request must list the desired disk attachments to be created on the storage domain. If the disk attachments are not listed, the global storage domain parameter will be ignored.

```
<template>
  <name>mytemplate</name>
  <storage_domain id="123"/>
  <vm id="456">
    <disk_attachments>
      <disk_attachment>
        <disk id="789">
          <format>cow</format>
          <sparse>>true</sparse>
        </disk>
      </disk_attachment>
    </disk_attachments>
  </vm>
</template>
```

- Per each disk attachment. Specify the desired storage domain for each disk attachment. Specifying the global storage definition will override the storage domain per disk attachment specification.

```

<template>
  <name>mytemplate</name>
  <vm id="123">
    <disk_attachments>
      <disk_attachment>
        <disk id="456">
          <format>cow</format>
          <sparse>>true</sparse>
          <storage_domains>
            <storage_domain id="789"/>
          </storage_domains>
        </disk>
      </disk_attachment>
    </disk_attachments>
  </vm>
</template>

```

Table 6.744. Parameters summary

Name	Type	Direction	Summary
<b>clone_permissions</b>	Boolean	In	Specifies if the permissions of the virtual machine should be copied to the template.
<b>seal</b>	Boolean	In	Seals the template.
<b>template</b>	Template	In/Out	The information about the template or template version.

### 6.244.1.1. clone\_permissions

Specifies if the permissions of the virtual machine should be copied to the template.

If this optional parameter is provided, and its value is **true**, then the permissions of the virtual machine (only the direct ones, not the inherited ones) will be copied to the created template. For example, to create a template from the **myvm** virtual machine copying its permissions, send a request like this:

```
POST /ovirt-engine/api/templates?clone_permissions=true
```

With a request body like this:

```

<template>
  <name>mytemplate</name>
  <vm>
    <name>myvm</name>
  </vm>
</template>

```

### 6.244.1.2. seal

Seals the template.

If this optional parameter is provided and its value is **true**, then the template is sealed after creation.

Sealing erases all host-specific configuration from the filesystem: SSH keys, UDEV rules, MAC addresses, system ID, hostname, and so on, thus making it easier to use the template to create multiple virtual machines without manual intervention.

Currently, sealing is supported only for Linux operating systems.

### 6.244.2. list GET

Returns the list of virtual machine templates.

For example:

```
GET /ovirt-engine/api/templates
```

Will return the list of virtual machines and virtual machine templates.

The order of the returned list of templates is not guaranteed.

**Table 6.745. Parameters summary**

Name	Type	Direction	Summary
<b>case_sensitive</b>	Boolean	In	Indicates if the search performed using the <b>search</b> parameter should be performed taking case into account.
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of templates to return.
<b>search</b>	String	In	A query string used to restrict the returned templates.
<b>templates</b>	Template[]	Out	The list of virtual machine templates.

#### 6.244.2.1. case\_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

#### 6.244.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.244.2.3. max

Sets the maximum number of templates to return. If not specified, all the templates are returned.

## 6.245. UNMANAGEDNETWORK

Table 6.746. Methods summary

Name	Summary
<b>get</b>	
<b>remove</b>	

### 6.245.1. get GET

Table 6.747. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>network</b>	<a href="#">Unmanaged Network</a>	Out	

#### 6.245.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.245.2. remove DELETE

Table 6.748. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the remove should be performed asynchronously.

## 6.246. UNMANAGEDNETWORKS

Table 6.749. Methods summary

Name	Summary
<b>list</b>	Returns the list of unmanaged networks of the host.

### 6.246.1. list GET

Returns the list of unmanaged networks of the host.

The order of the returned list of networks isn't guaranteed.

Table 6.750. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of networks to return.
<b>networks</b>	<a href="#">Unmanaged Network[]</a>	Out	

#### 6.246.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.246.1.2. max

Sets the maximum number of networks to return. If not specified all the networks are returned.

## 6.247. USER

A service to manage a user in the system. Use this service to either get users details or remove users. In order to add new users please use [users](#).

Table 6.751. Methods summary

Name	Summary
<b>get</b>	Gets the system user information.
<b>remove</b>	Removes the system user.
<b>update</b>	Updates information about the user.

### 6.247.1. get GET

Gets the system user information.

Usage:

```
GET /ovirt-engine/api/users/1234
```

Will return the user information:

```
<user href="/ovirt-engine/api/users/1234" id="1234">
  <name>admin</name>
  <link href="/ovirt-engine/api/users/1234/sshplickeys" rel="sshplickeys"/>
  <link href="/ovirt-engine/api/users/1234/roles" rel="roles"/>
  <link href="/ovirt-engine/api/users/1234/permissions" rel="permissions"/>
  <link href="/ovirt-engine/api/users/1234/tags" rel="tags"/>
  <department></department>
  <domain_entry_id>23456</domain_entry_id>
  <email>user1@domain.com</email>
  <last_name>Lastname</last_name>
  <namespace>*</namespace>
  <principal>user1</principal>
  <user_name>user1@domain-authz</user_name>
  <domain href="/ovirt-engine/api/domains/45678" id="45678">
    <name>domain-authz</name>
  </domain>
</user>
```

Table 6.752. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>user</b>	User	Out	The system user.

### 6.247.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.247.2. remove DELETE

Removes the system user.

Usage:

```
DELETE /ovirt-engine/api/users/1234
```

Table 6.753. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

### 6.247.3. update PUT

Updates information about the user.

Only the **user\_options** field can be updated.

For example, to update user options:

```
PUT /ovirt-engine/api/users/123
```

With a request body like this:

```
<user>
  <user_options>
    <property>
      <name>test</name>
      <value>["any","JSON"]</value>
    </property>
  </user_options>
</user>
```



#### IMPORTANT

Since version 4.4.5 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. Please use the [options](#) endpoint instead.

Table 6.754. Parameters summary

Name	Type	Direction	Summary
<b>user</b>	User	In/Out	

## 6.248. USEROPTION

Table 6.755. Methods summary

Name	Summary
<b>get</b>	Returns a user profile property of type JSON.
<b>remove</b>	Deletes an existing property of type JSON.

### 6.248.1. get GET

Returns a user profile property of type JSON.

Example request(for user with identifier **123** and option with identifier **456**):

```
GET /ovirt-engine/api/users/123/options/456
```

The result will be the following XML document:

```
<user_option href="/ovirt-engine/api/users/123/options/456" id="456">
  <name>SomeName</name>
  <content>["any", "JSON"]</content>
  <user href="/ovirt-engine/api/users/123" id="123"/>
</user_option>
```

Table 6.756. Parameters summary

Name	Type	Direction	Summary
<b>option</b>	UserOption	Out	

### 6.248.2. remove DELETE

Deletes an existing property of type JSON.

Example request(for user with identifier **123** and option with identifier **456**):

```
DELETE /ovirt-engine/api/users/123/options/456
```

## 6.249. USEROPTIONS

Table 6.757. Methods summary

Name	Summary
<b>add</b>	Adds a new user profile property of type JSON.
<b>list</b>	Returns a list of user profile properties of type JSON.

### 6.249.1. add POST

Adds a new user profile property of type JSON.

Example request(for user with identifier **123**):

```
POST /ovirt-engine/api/users/123/options
```

Payload:

```
<user_option>
  <name>SomeName</name>
  <content>["any", "JSON"]</content>
</user_option>
```

Table 6.758. Parameters summary

Name	Type	Direction	Summary
<b>option</b>	UserOption	In/Out	

### 6.249.2. list GET

Returns a list of user profile properties of type JSON.

Example request(for user with identifier **123**):

```
GET /ovirt-engine/api/users/123/options
```

The result will be the following XML document:

```
<user_options>
  <user_option href="/ovirt-engine/api/users/123/options/456" id="456">
    <name>SomeName</name>
    <content>["any", "JSON"]</content>
    <user href="/ovirt-engine/api/users/123" id="123"/>
  </user_option>
</user_options>
```

Table 6.759. Parameters summary

Name	Type	Direction	Summary
<b>options</b>	UserOption[ ]	Out	

## 6.250. USERS

A service to manage the users in the system.

Table 6.760. Methods summary

Name	Summary
<b>add</b>	Add user from a directory service.
<b>list</b>	List all the users in the system.

### 6.250.1. add POST

Add user from a directory service.

For example, to add the **myuser** user from the **myextension-authz** authorization provider send a request like this:

```
POST /ovirt-engine/api/users
```

With a request body like this:

```
<user>
  <user_name>myuser@myextension-authz</user_name>
  <domain>
    <name>myextension-authz</name>
  </domain>
</user>
```

In case you are working with Active Directory you have to pass user principal name (UPN) as **username**, followed by authorization provider name. Due to [bug 1147900](#) you need to provide also **principal** parameter set to UPN of the user.

For example, to add the user with UPN **myuser@mysubdomain.mydomain.com** from the **myextension-authz** authorization provider send a request body like this:

```
<user>
  <principal>myuser@mysubdomain.mydomain.com</principal>
  <user_name>myuser@mysubdomain.mydomain.com@myextension-authz</user_name>
  <domain>
    <name>myextension-authz</name>
  </domain>
</user>
```

Table 6.761. Parameters summary

Name	Type	Direction	Summary
<b>user</b>	User	In/Out	

### 6.250.2. list GET

List all the users in the system.

Usage:

```
GET /ovirt-engine/api/users
```

Will return the list of users:

```
<users>
  <user href="/ovirt-engine/api/users/1234" id="1234">
    <name>admin</name>
    <link href="/ovirt-engine/api/users/1234/sshpublickeys" rel="sshpublickeys"/>
    <link href="/ovirt-engine/api/users/1234/roles" rel="roles"/>
    <link href="/ovirt-engine/api/users/1234/permissions" rel="permissions"/>
    <link href="/ovirt-engine/api/users/1234/tags" rel="tags"/>
    <domain_entry_id>23456</domain_entry_id>
    <namespace>*</namespace>
    <principal>user1</principal>
    <user_name>user1@domain-authz</user_name>
    <domain href="/ovirt-engine/api/domains/45678" id="45678">
      <name>domain-authz</name>
```

```

</domain>
</user>
</users>

```

The order of the returned list of users isn't guaranteed.

**Table 6.762. Parameters summary**

Name	Type	Direction	Summary
<b>case_sensitive</b>	Boolean	In	Indicates if the search performed using the <b>search</b> parameter should be performed taking case into account.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of users to return.
<b>search</b>	String	In	A query string used to restrict the returned users.
<b>users</b>	User[]	Out	The list of users.

#### 6.250.2.1. case\_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

#### 6.250.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.250.2.3. max

Sets the maximum number of users to return. If not specified all the users are returned.

## 6.251. VIRTUALFUNCTIONALLOWEDNETWORK

**Table 6.763. Methods summary**

Name	Summary
<b>get</b>	
<b>remove</b>	

#### 6.251.1. get GET

**Table 6.764. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>network</b>	<a href="#">Network</a>	Out	

### 6.251.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.251.2. remove DELETE

Table 6.765. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the remove should be performed asynchronously.

## 6.252. VIRTUALFUNCTIONALLOWEDNETWORKS

Table 6.766. Methods summary

Name	Summary
<b>add</b>	
<b>list</b>	Returns the list of networks.

### 6.252.1. add POST

Table 6.767. Parameters summary

Name	Type	Direction	Summary
<b>network</b>	<a href="#">Network</a>	In/Out	

### 6.252.2. list GET

Returns the list of networks.

The order of the returned list of networks isn't guaranteed.

Table 6.768. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of networks to return.
<b>networks</b>	Network[]	Out	

### 6.252.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.252.2.2. max

Sets the maximum number of networks to return. If not specified all the networks are returned.

## 6.253. VM

Table 6.769. Methods summary

Name	Summary
<b>autopincpuand numanodes</b>	Apply an automatic CPU and NUMA configuration on the VM.
<b>cancelmigration</b>	This operation stops any migration of a virtual machine to another physical host.
<b>clone</b>	
<b>commitsnapsho t</b>	Permanently restores the virtual machine to the state of the previewed snapshot.
<b>detach</b>	Detaches a virtual machine from a pool.
<b>export</b>	Exports the virtual machine.
<b>freezefilesystem s</b>	Freezes virtual machine file systems.
<b>get</b>	Retrieves the description of the virtual machine.
<b>logon</b>	Initiates the automatic user logon to access a virtual machine from an external console.
<b>maintenance</b>	Sets the global maintenance mode on the hosted engine virtual machine.
<b>migrate</b>	Migrates a virtual machine to another physical host.

Name	Summary
<b>previewsnapshot</b>	Temporarily restores the virtual machine to the state of a snapshot.
<b>reboot</b>	Sends a reboot request to a virtual machine.
<b>remove</b>	Removes the virtual machine, including the virtual disks attached to it.
<b>reordermacaddresses</b>	
<b>reset</b>	Sends a reset request to a virtual machine.
<b>screenshot</b>	Captures screenshot of the current state of the VM.
<b>shutdown</b>	This operation sends a shutdown request to a virtual machine.
<b>start</b>	Starts the virtual machine.
<b>stop</b>	This operation forces a virtual machine to power-off.
<b>suspend</b>	This operation saves the virtual machine state to disk and stops it.
<b>thawfilesystems</b>	Thaws virtual machine file systems.
<b>ticket</b>	Generates a time-sensitive authentication token for accessing a virtual machine's display.
<b>undosnapshot</b>	Restores the virtual machine to the state it had before previewing the snapshot.
<b>update</b>	Update the virtual machine in the system for the given virtual machine id.

### 6.253.1. autopincpuandnumanodes POST

Apply an automatic CPU and NUMA configuration on the VM.



#### IMPORTANT

Since version 4.5 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. Instead please use PUT followed by [update operation](#).

An example for a request:

```
POST /ovirt-engine/api/vms/123/autopincpuandnumanodes
```

With a request body like this:

```
<action>
  <optimize_cpu_settings>true</optimize_cpu_settings>
</action>
```

Table 6.770. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the detach action should be performed asynchronously.
<b>optimize_cpu_settings</b>	Boolean	In	Specifies how the auto CPU and NUMA configuration is applied.

### 6.253.1.1. optimize\_cpu\_settings

Specifies how the auto CPU and NUMA configuration is applied. If set to true, will adjust the CPU topology to fit the VM pinned host hardware. Otherwise, it will use the VM CPU topology.

### 6.253.2. cancelmigration POST

This operation stops any migration of a virtual machine to another physical host.

```
POST /ovirt-engine/api/vms/123/cancelmigration
```

The cancel migration action does not take any action specific parameters; therefore, the request body should contain an empty **action**:

```
<action/>
```

Table 6.771. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the migration should cancelled asynchronously.

### 6.253.3. clone POST

Table 6.772. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the clone should be performed asynchronously.

Name	Type	Direction	Summary
<b>discard_snapshots</b>	Boolean	In	Use the <b>discard_snapshots</b> parameter when the virtual machine should be clone with its snapshots collapsed.
<b>storage_domain</b>	StorageDomain	In	The storage domain on which the virtual machines disks will be copied to.
<b>vm</b>	Vm	In	

### 6.253.3.1. discard\_snapshots

Use the **discard\_snapshots** parameter when the virtual machine should be clone with its snapshots collapsed. Default is true.

### 6.253.4. commitsnapshot POST

Permanently restores the virtual machine to the state of the previewed snapshot.

See the [preview\\_snapshot](#) operation for details.

Table 6.773. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the snapshots should be committed asynchronously.

### 6.253.5. detach POST

Detaches a virtual machine from a pool.

POST /ovirt-engine/api/vms/123/detach

The detach action does not take any action specific parameters; therefore, the request body should contain an empty **action**:

<action/>

Table 6.774. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the detach action should be performed asynchronously.

### 6.253.6. export POST

Exports the virtual machine.

A virtual machine can be exported to an export domain. For example, to export virtual machine **123** to the export domain **myexport**:

```
POST /ovirt-engine/api/vms/123/export
```

With a request body like this:

```
<action>
  <storage_domain>
    <name>myexport</name>
  </storage_domain>
  <exclusive>true</exclusive>
  <discard_snapshots>true</discard_snapshots>
</action>
```

Since version 4.2 of the engine it is also possible to export a virtual machine as a virtual appliance (OVA). For example, to export virtual machine **123** as an OVA file named **myvm.ova** that is placed in the directory **/home/ovirt/** on host **myhost**:

```
POST /ovirt-engine/api/vms/123/export
```

With a request body like this:

```
<action>
  <host>
    <name>myhost</name>
  </host>
  <directory>/home/ovirt</directory>
  <filename>myvm.ova</filename>
</action>
```



#### NOTE

Confirm that the export operation has completed before attempting any actions on the export domain.

Table 6.775. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the export should be performed asynchronously.
<b>discard_snapshots</b>	Boolean	In	Use the <b>discard_snapshots</b> parameter when the virtual machine should be exported with all of its snapshots collapsed.

Name	Type	Direction	Summary
<b>exclusive</b>	Boolean	In	Use the <b>exclusive</b> parameter when the virtual machine should be exported even if another copy of it already exists in the export domain (override).
<b>storage_domain</b>	StorageDomain	In	The (export) storage domain to export the virtual machine to.

### 6.253.7. freezefilesystems POST

Freezes virtual machine file systems.

This operation freezes a virtual machine's file systems using the QEMU guest agent when taking a live snapshot of a running virtual machine. Normally, this is done automatically by the manager, but this must be executed manually with the API for virtual machines using OpenStack Volume (Cinder) disks.

Example:

```
POST /ovirt-engine/api/vms/123/freezefilesystems
```

```
<action/>
```

Table 6.776. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the freeze should be performed asynchronously.

### 6.253.8. get GET

Retrieves the description of the virtual machine.

Table 6.777. Parameters summary

Name	Type	Direction	Summary
<b>all_content</b>	Boolean	In	Indicates if all of the attributes of the virtual machine should be included in the response.
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
<b>next_run</b>	Boolean	In	Indicates if the returned result describes the virtual machine as it is currently running or if describes the virtual machine with the modifications that have already been performed but that will only come into effect when the virtual machine is restarted.
<b>ovf_as_ova</b>	Boolean	In	Indicates if the results should expose the OVF as it appears in OVA files of that VM.
<b>vm</b>	Vm	Out	Description of the virtual machine.

### 6.253.8.1. all\_content

Indicates if all of the attributes of the virtual machine should be included in the response.

By default the following attributes are excluded:

- **console**
- **initialization.configuration.data** - The OVF document describing the virtual machine.
- **rng\_source**
- **soundcard**
- **virtio\_scsi**

For example, to retrieve the complete representation of the virtual machine '123':

```
GET /ovirt-engine/api/vms/123?all_content=true
```



#### NOTE

These attributes are not included by default as they reduce performance. These attributes are seldom used and require additional queries to the database. Only use this parameter when required as it will reduce performance.

### 6.253.8.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.253.8.3. next\_run

Indicates if the returned result describes the virtual machine as it is currently running or if describes the virtual machine with the modifications that have already been performed but that will only come into effect when the virtual machine is restarted. By default the value is **false**.

If the parameter is included in the request, but without a value, it is assumed that the value is **true**. The the following request:

```
GET /vms/{vm:id};next_run
```

Is equivalent to using the value **true**:

```
GET /vms/{vm:id};next_run=true
```

#### 6.253.8.4. ovf\_as\_ova

Indicates if the results should expose the OVF as it appears in OVA files of that VM. The OVF document describing the virtual machine. This parameter will work only when `all_content=True` is set. The OVF will be presented in **initialization.configuration.data**.

For example:

```
GET /vms/{vm:id}?all_content=true&ovf_as_ova=true
```

#### 6.253.9. logon POST

Initiates the automatic user logon to access a virtual machine from an external console.

This action requires the **ovirt-guest-agent-gdm-plugin** and the **ovirt-guest-agent-pam-module** packages to be installed and the **ovirt-guest-agent** service to be running on the virtual machine.

Users require the appropriate user permissions for the virtual machine in order to access the virtual machine from an external console.

For example:

```
POST /ovirt-engine/api/vms/123/logon
```

Request body:

```
<action/>
```

Table 6.778. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the logon should be performed asynchronously.

#### 6.253.10. maintenance POST

Sets the global maintenance mode on the hosted engine virtual machine.

This action has no effect on other virtual machines.

Example:

■

```
POST /ovirt-engine/api/vms/123/maintenance
```

```
<action>
  <maintenance_enabled>true</maintenance_enabled/>
</action>
```

Table 6.779. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the global maintenance action should be performed asynchronously.
<b>maintenance_enabled</b>	Boolean	In	Indicates if global maintenance should be enabled or disabled.

### 6.253.11. migrate POST

Migrates a virtual machine to another physical host.

Example:

```
POST /ovirt-engine/api/vms/123/migrate
```

To specify a specific host to migrate the virtual machine to:

```
<action>
  <host id="2ab5e1da-b726-4274-bbf7-0a42b16a0fc3"/>
</action>
```

Table 6.780. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the migration should be performed asynchronously.
<b>cluster</b>	Cluster	In	Specifies the cluster the virtual machine should migrate to.
<b>force</b>	Boolean	In	Specifies that the virtual machine should migrate even if the virtual machine is defined as non-migratable.
<b>host</b>	Host	In	Specifies a specific host that the virtual machine should migrate to.

Name	Type	Direction	Summary
<b>migrate_vms_in_affinity_closure</b>	Boolean	In	Migrate also all other virtual machines in positive enforcing affinity groups with this virtual machine, that are running on the same host.

### 6.253.11.1. cluster

Specifies the cluster the virtual machine should migrate to. This is an optional parameter. By default, the virtual machine is migrated to another host within the same cluster.



#### WARNING

Live migration to another cluster is not supported. Strongly consider the target cluster's hardware architecture and network architecture before attempting a migration.

### 6.253.11.2. force

Specifies that the virtual machine should migrate even if the virtual machine is defined as non-migratable. This is an optional parameter. By default, it is set to **false**.

### 6.253.11.3. host

Specifies a specific host that the virtual machine should migrate to. This is an optional parameter. By default, the Red Hat Virtualization Manager automatically selects a default host for migration within the same cluster. If an API user requires a specific host, the user can specify the host with either an **id** or **name** parameter.

### 6.253.11.4. migrate\_vms\_in\_affinity\_closure

Migrate also all other virtual machines in positive enforcing affinity groups with this virtual machine, that are running on the same host.

The default value is **false**.

## 6.253.12. previewsnapshot POST

Temporarily restores the virtual machine to the state of a snapshot.

The snapshot is indicated with the **snapshot.id** parameter. It is restored temporarily, so that the content can be inspected. Once that inspection is finished, the state of the virtual machine can be made permanent, using the [commit\\_snapshot](#) method, or discarded using the [undo\\_snapshot](#) method.

### Table 6.781. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the preview should be performed asynchronously.
<b>disks</b>	Disk[]	In	Specify the disks included in the snapshot's preview.
<b>lease</b>	StorageDomainLease	In	Specify the lease storage domain ID to use in the preview of the snapshot.
<b>restore_memory</b>	Boolean	In	
<b>snapshot</b>	Snapshot	In	
<b>vm</b>	Vm	In	

### 6.253.12.1. disks

Specify the disks included in the snapshot's preview.

For each disk parameter, it is also required to specify its **image\_id**.

For example, to preview a snapshot with identifier **456** which includes a disk with identifier **111** and its **image\_id** as **222**, send a request like this:

```
POST /ovirt-engine/api/vms/123/previewsnapshot
```

Request body:

```
<action>
  <disks>
    <disk id="111">
      <image_id>222</image_id>
    </disk>
  </disks>
  <snapshot id="456"/>
</action>
```

### 6.253.12.2. lease

Specify the lease storage domain ID to use in the preview of the snapshot. If lease parameter is not passed, then the previewed snapshot lease storage domain will be used. If lease parameter is passed with empty storage domain parameter, then no lease will be used for the snapshot preview. If lease parameter is passed with storage domain parameter then the storage domain ID can be only one of the leases domain IDs that belongs to one of the virtual machine snapshots. This is an optional parameter, set by default to **null**

### 6.253.13. reboot POST

Sends a reboot request to a virtual machine.

For example:

```
POST /ovirt-engine/api/vms/123/reboot
```

The reboot action does not take any action specific parameters; therefore, the request body should contain an empty **action**:

```
<action/>
```

To reboot the VM even if a backup is running for it, the action should include the 'force' element.

For example, to force reboot virtual machine **123**:

```
POST /ovirt-engine/api/vms/123/reboot
```

```
<action>
  <force>true</force>
</action>
```

Table 6.782. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the reboot should be performed asynchronously.
<b>force</b>	Boolean	In	Indicates if the VM should be forcibly rebooted even if a backup is running for it.

#### 6.253.14. remove DELETE

Removes the virtual machine, including the virtual disks attached to it.

For example, to remove the virtual machine with identifier **123**:

```
DELETE /ovirt-engine/api/vms/123
```

Table 6.783. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.
<b>detach_only</b>	Boolean	In	Indicates if the attached virtual disks should be detached first and preserved instead of being removed.
<b>force</b>	Boolean	In	Indicates if the virtual machine should be forcibly removed.

### 6.253.14.1. force

Indicates if the virtual machine should be forcibly removed.

Locked virtual machines and virtual machines with locked disk images cannot be removed without this flag set to true.

### 6.253.15. reordermacaddresses POST

Table 6.784. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the action should be performed asynchronously.

### 6.253.16. reset POST

Sends a reset request to a virtual machine.

For example:

```
POST /ovirt-engine/api/vms/123/reset
```

The reset action does not take any action specific parameters; therefore, the request body should contain an empty **action**:

```
<action/>
```

Table 6.785. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the reset should be performed asynchronously.

### 6.253.17. screenshot POST

Captures screenshot of the current state of the VM.

For example:

```
POST /ovirt-engine/api/vms/123/screenshot
```

The screenshot action does not take any action specific parameters; therefore, the request body should contain an empty **action**:

```
<action/>
```

### 6.253.18. shutdown POST

This operation sends a shutdown request to a virtual machine.

For example:

```
POST /ovirt-engine/api/vms/123/shutdown
```

The shutdown action does not take any action specific parameters; therefore, the request body should contain an empty **action**:

```
<action/>
```

To shutdown the VM even if a backup is running for it, the action should include the 'force' element.

For example, to force shutdown virtual machine **123**:

```
POST /ovirt-engine/api/vms/123/shutdown
```

```
<action>
  <force>true</force>
</action>
```

Table 6.786. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the shutdown should be performed asynchronously.
<b>force</b>	Boolean	In	Indicates if the VM should be forcibly shutdown even if a backup is running for it.
<b>reason</b>	String	In	The reason the virtual machine was stopped.

#### 6.253.18.1. reason

The reason the virtual machine was stopped. Optionally set by user when shutting down the virtual machine.

#### 6.253.19. start POST

Starts the virtual machine.

If the virtual environment is complete and the virtual machine contains all necessary components to function, it can be started.

This example starts the virtual machine:

```
POST /ovirt-engine/api/vms/123/start
```

With a request body:

`<action/>`

Table 6.787. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the start action should be performed asynchronously.
<b>authorized_key</b>	AuthorizedKey	In	
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>pause</b>	Boolean	In	If set to <b>true</b> , start the virtual machine in paused mode.
<b>use_cloud_init</b>	Boolean	In	If set to <b>true</b> , the initialization type is set to <i>cloud-init</i> .
<b>use_ignition</b>	Boolean	In	If set to <b>true</b> , the initialization type is set to <i>Ignition</i> .
<b>use_initialization</b>	Boolean	In	If set to <b>true</b> , the initialization type is set by the VM's OS.
<b>use_sysprep</b>	Boolean	In	If set to <b>true</b> , the initialization type is set to <i>Sysprep</i> .
<b>vm</b>	Vm	In	The definition of the virtual machine for this specific run.
<b>volatile</b>	Boolean	In	Indicates that this run configuration will be discarded even in the case of guest-initiated reboot.

### 6.253.19.1. pause

If set to **true**, start the virtual machine in paused mode. The default is **false**.

### 6.253.19.2. use\_cloud\_init

If set to **true**, the initialization type is set to *cloud-init*. The default value is **false**. See [cloud-init documentation](#) for details.

### 6.253.19.3. use\_ignition

If set to **true**, the initialization type is set to *Ignition*. The default value is **false**. See [Ignition documentation](#) for details.

#### 6.253.19.4. use\_initialization

If set to **true**, the initialization type is set by the VM's OS. Windows will set to *Sysprep*, Linux to *cloud-init* and RedHat CoreOS to *Ignition*. If any of the initialization-types are explicitly set (useCloudInit, useSysprep or useIgnition), they will be prioritized and this flag will be ignored. The default value is **false**.

#### 6.253.19.5. use\_sysprep

If set to **true**, the initialization type is set to *Sysprep*. The default value is **false**. See [Sysprep](#) for details.

#### 6.253.19.6. vm

The definition of the virtual machine for this specific run.

For example:

```
<action>
  <vm>
    <os>
      <boot>
        <devices>
          <device>cdrom</device>
        </devices>
      </boot>
    </os>
  </vm>
</action>
```

This will set the boot device to the CDRom only for this specific start. After the virtual machine is powered off, this definition will be reverted.

#### 6.253.19.7. volatile

Indicates that this run configuration will be discarded even in the case of guest-initiated reboot. The default value is **false**.

#### 6.253.20. stop POST

This operation forces a virtual machine to power-off.

For example:

```
POST /ovirt-engine/api/vms/123/stop
```

The stop action does not take any action specific parameters; therefore, the request body should contain an empty **action**:

```
<action/>
```

To stop the VM even if a backup is running for it, the action should include the 'force' element.

For example, to force stop virtual machine **123**:

```
POST /ovirt-engine/api/vms/123/stop
```

```

-
<action>
  <force>true</force>
</action>

```

Table 6.788. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the stop action should be performed asynchronously.
<b>force</b>	Boolean	In	Indicates if the VM should be forcibly stop even if a backup is running for it.
<b>reason</b>	String	In	The reason the virtual machine was stopped.

### 6.253.20.1. reason

The reason the virtual machine was stopped. Optionally set by user when shutting down the virtual machine.

### 6.253.21. suspend POST

This operation saves the virtual machine state to disk and stops it. Start a suspended virtual machine and restore the virtual machine state with the start action.

For example:

```
POST /ovirt-engine/api/vms/123/suspend
```

The suspend action does not take any action specific parameters; therefore, the request body should contain an empty **action**:

```
<action/>
```

Table 6.789. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the suspend action should be performed asynchronously.

### 6.253.22. thawfilesystems POST

Thaws virtual machine file systems.

This operation thaws a virtual machine's file systems using the QEMU guest agent when taking a live snapshot of a running virtual machine. Normally, this is done automatically by the manager, but this must be executed manually with the API for virtual machines using OpenStack Volume (Cinder) disks.

Example:

```
POST /api/vms/123/thawfilesystems
```

```
<action/>
```

Table 6.790. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the thaw file systems action should be performed asynchronously.

### 6.253.23. ticket POST

Generates a time-sensitive authentication token for accessing a virtual machine's display.

For example:

```
POST /ovirt-engine/api/vms/123/ticket
```

The client-provided action optionally includes a desired ticket value and/or an expiry time in seconds.

The response specifies the actual ticket value and expiry used.

```
<action>
  <ticket>
    <value>abcd12345</value>
    <expiry>120</expiry>
  </ticket>
</action>
```

#### IMPORTANT

If the virtual machine is configured to support only one graphics protocol then the generated authentication token will be valid for that protocol. But if the virtual machine is configured to support multiple protocols, VNC and SPICE, then the authentication token will only be valid for the SPICE protocol.

In order to obtain an authentication token for a specific protocol, for example for VNC, use the **ticket** method of the [service](#), which manages the graphics consoles of the virtual machine, by sending a request:

```
POST /ovirt-engine/api/vms/123/graphicsconsoles/456/ticket
```

Table 6.791. Parameters summary

Name	Type	Direction	Summary
------	------	-----------	---------

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the generation of the ticket should be performed asynchronously.
<b>ticket</b>	Ticket	In/Out	

### 6.253.24. undosnapshot POST

Restores the virtual machine to the state it had before previewing the snapshot.

See the [preview\\_snapshot](#) operation for details.

Table 6.792. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the undo snapshot action should be performed asynchronously.

### 6.253.25. update PUT

Update the virtual machine in the system for the given virtual machine id.

Table 6.793. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>next_run</b>	Boolean	In	Indicates if the update should be applied to the virtual machine immediately or if it should be applied only when the virtual machine is restarted.
<b>vm</b>	Vm	In/Out	

#### 6.253.25.1. next\_run

Indicates if the update should be applied to the virtual machine immediately or if it should be applied only when the virtual machine is restarted. The default value is **false**, so by default changes are applied immediately.

## 6.254. VMAPPLICATION

A service that provides information about an application installed in a virtual machine.

Table 6.794. Methods summary

Name	Summary
<b>get</b>	Returns the information about the application.

### 6.254.1. get GET

Returns the information about the application.

Table 6.795. Parameters summary

Name	Type	Direction	Summary
<b>application</b>	<a href="#">Application</a>	Out	The information about the application.
<b>filter</b>	<a href="#">Boolean</a>	In	Indicates if the results should be filtered according to the permissions of the user.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

#### 6.254.1.1. application

The information about the application.

The information consists of **name** attribute containing the name of the application (which is an arbitrary string that may also contain additional information such as version) and **vm** attribute identifying the virtual machine.

For example, a request like this:

```
GET /ovirt-engine/api/vms/123/applications/789
```

May return information like this:

```
<application href="/ovirt-engine/api/vms/123/applications/789" id="789">
  <name>ovirt-guest-agent-common-1.0.12-3.el7</name>
  <vm href="/ovirt-engine/api/vms/123" id="123"/>
</application>
```

#### 6.254.1.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.255. VMAPPLICATIONS

A service that provides information about applications installed in a virtual machine.

Table 6.796. Methods summary

Name	Summary
<b>list</b>	Returns a list of applications installed in the virtual machine.

### 6.255.1. list GET

Returns a list of applications installed in the virtual machine.

The order of the returned list of applications isn't guaranteed.

**Table 6.797. Parameters summary**

Name	Type	Direction	Summary
<b>applications</b>	<a href="#">Application[]</a>	Out	A list of applications installed in the virtual machine.
<b>filter</b>	<a href="#">Boolean</a>	In	Indicates if the results should be filtered according to the permissions of the user.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of applications to return.

#### 6.255.1.1. applications

A list of applications installed in the virtual machine.

For example, a request like this:

```
GET /ovirt-engine/api/vms/123/applications/
```

May return a list like this:

```
<applications>
  <application href="/ovirt-engine/api/vms/123/applications/456" id="456">
    <name>kernel-3.10.0-327.36.1.el7</name>
    <vm href="/ovirt-engine/api/vms/123" id="123"/>
  </application>
  <application href="/ovirt-engine/api/vms/123/applications/789" id="789">
    <name>ovirt-guest-agent-common-1.0.12-3.el7</name>
    <vm href="/ovirt-engine/api/vms/123" id="123"/>
  </application>
</applications>
```

#### 6.255.1.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.255.1.3. max

Sets the maximum number of applications to return. If not specified all the applications are returned.

## 6.256. VMBACKUP

A service managing a backup of a virtual machines.

Table 6.798. Methods summary

Name	Summary
<b>finalize</b>	Finalize the virtual machine backup entity.
<b>get</b>	Returns information about the virtual machine backup.

### 6.256.1. finalize POST

Finalize the virtual machine backup entity.

End backup, unlock resources, and perform cleanups. To finalize a virtual machine with an id '123' and a backup with an id '456' send a request as follows:

```
POST /ovirt-engine/api/vms/123/backups/456/finalize
```

With a request body as follows:

```
<action />
```

### 6.256.2. get GET

Returns information about the virtual machine backup.

Table 6.799. Parameters summary

Name	Type	Direction	Summary
<b>backup</b>	<a href="#">Backup</a>	Out	The information about the virtual machine backup entities.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

#### 6.256.2.1. backup

The information about the virtual machine backup entities.

```
<backups>
  <backup id="backup-uuid">
    <from_checkpoint_id>previous-checkpoint-uuid</from_checkpoint_id>
    <link href="/ovirt-engine/api/vms/vm-uuid/backups/backup-uuid/disks" rel="disks"/>
```

```

<status>initializing</status>
<creation_date>
</backup>
</backups>

```

### 6.256.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.257. VMBACKUPDISK

Table 6.800. Methods summary

Name	Summary
<b>get</b>	Retrieves the description of the disk.

### 6.257.1. get GET

Retrieves the description of the disk.

Table 6.801. Parameters summary

Name	Type	Direction	Summary
<b>disk</b>	<a href="#">Disk</a>	Out	The description of the disk.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

#### 6.257.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.258. VMBACKUPDISKS

Table 6.802. Methods summary

Name	Summary
<b>list</b>	Returns the list of disks in backup.

### 6.258.1. list GET

Returns the list of disks in backup.

Table 6.803. Parameters summary

Name	Type	Direction	Summary
<b>disks</b>	<a href="#">Disk[]</a>	Out	The list of retrieved disks.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of disks to return.

### 6.258.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.258.1.2. max

Sets the maximum number of disks to return. If not specified, all the disks are returned.

## 6.259. VMBACKUPS

Lists the backups of a virtual machine.

Table 6.804. Methods summary

Name	Summary
<b>add</b>	Adds a new backup entity to a virtual machine.
<b>list</b>	The list of virtual machine backups.

### 6.259.1. add POST

Adds a new backup entity to a virtual machine.

For example, to start a new incremental backup of a virtual machine since checkpoint id **previous-checkpoint-uuid**, send a request like this:

```
POST /ovirt-engine/api/vms/123/backups
```

With a request body like this:

```
<backup>
  <from_checkpoint_id>previous-checkpoint-uuid</from_checkpoint_id>
  <disks>
    <disk id="disk-uuid" />
    ...
  </disks>
</backup>
```

The response body:

```

<backup id="backup-uuid">
  <from_checkpoint_id>previous-checkpoint-uuid</from_checkpoint_id>
  <to_checkpoint_id>new-checkpoint-uuid</to_checkpoint_id>
  <disks>
    <disk id="disk-uuid" />
    ...
  </disks>
  <status>initializing</status>
  <creation_date>
</backup>

```

To provide the ID of the created backup, send a request like this:

```
POST /ovirt-engine/api/vms/123/backups
```

With a request body like this:

```

<backup id="backup-uuid">
  <from_checkpoint_id>previous-checkpoint-uuid</from_checkpoint_id>
  <disks>
    <disk id="disk-uuid" />
    ...
  </disks>
</backup>

```

Table 6.805. Parameters summary

Name	Type	Direction	Summary
<b>backup</b>	Backup	In/Out	The information about the virtual machine backup entity.
<b>require_consistency</b>	Boolean	In	Indicates if the backup will fail if VM failed to freeze or not.
<b>use_active</b>	Boolean	In	Indicate whether to use the active volume for performing the backup.

#### 6.259.1.1. require\_consistency

Indicates if the backup will fail if VM failed to freeze or not.

If requireConsistency=True VM backup will fail in case of a failure to freeze the VM.

The REST API call should look like this:

```
POST /ovirt-engine/api/vms/123/backups?require_consistency=true
```

The default value of the requireConsistency flag is **false**.

#### 6.259.1.2. use\_active

Indicate whether to use the active volume for performing the backup.

If `useActive=False` a snapshot will be created for the backup operation.

The REST API call should look like this:

```
POST /ovirt-engine/api/vms/123/backups?use_active=false
```

The default value of the `useActive` flag is **false**.

## 6.259.2. list GET

The list of virtual machine backups.

Table 6.806. Parameters summary

Name	Type	Direction	Summary
<b>backups</b>	<code>Backup[]</code>	Out	The information about the virtual machine backup entities.
<b>follow</b>	<code>String</code>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<code>Integer</code>	In	Sets the maximum number of virtual machine backups to return.

### 6.259.2.1. backups

The information about the virtual machine backup entities.

```
<backups>
  <backup id="backup-uuid">
    <from_checkpoint_id>previous-checkpoint-uuid</from_checkpoint_id>
    <disks>
      <disk id="disk-uuid" />
      ...
    </disks>
    <status>initializing</status>
    <creation_date>
  </backup>
</backups>
```

### 6.259.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.259.2.3. max

Sets the maximum number of virtual machine backups to return. If not specified, all the virtual machine backups are returned.

## 6.260. VMCDROM

Manages a CDROM device of a virtual machine.

Changing and ejecting the disk is done using always the **update** method, to change the value of the **file** attribute.

Table 6.807. Methods summary

Name	Summary
<b>get</b>	Returns the information about this CDROM device.
<b>update</b>	Updates the information about this CDROM device.

### 6.260.1. get GET

Returns the information about this CDROM device.

The information consists of **cdrom** attribute containing reference to the CDROM device, the virtual machine, and optionally the inserted disk.

If there is a disk inserted then the **file** attribute will contain a reference to the ISO image:

```
<cdrom href="..." id="00000000-0000-0000-0000-000000000000">
  <file id="mycd.iso"/>
  <vm href="/ovirt-engine/api/vms/123" id="123"/>
</cdrom>
```

If there is no disk inserted then the **file** attribute won't be reported:

```
<cdrom href="..." id="00000000-0000-0000-0000-000000000000">
  <vm href="/ovirt-engine/api/vms/123" id="123"/>
</cdrom>
```

Table 6.808. Parameters summary

Name	Type	Direction	Summary
<b>cdrom</b>	<a href="#">Cdrom</a>	Out	The information about the CDROM device.
<b>current</b>	<a href="#">Boolean</a>	In	Indicates if the operation should return the information for the currently running virtual machine.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

#### 6.260.1.1. current

Indicates if the operation should return the information for the currently running virtual machine. This parameter is optional, and the default value is **false**.

### 6.260.1.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.260.2. update PUT

Updates the information about this CDROM device.

It allows to change or eject the disk by changing the value of the **file** attribute. For example, to insert or change the disk send a request like this:

```
PUT /ovirt-engine/api/vms/123/cdroms/00000000-0000-0000-0000-000000000000
```

The body should contain the new value for the **file** attribute:

```
<cdrom>
  <file id="mycd.iso"/>
</cdrom>
```

The value of the **id** attribute, **mycd.iso** in this example, should correspond to a file available in an attached ISO storage domain.

To eject the disk use a **file** with an empty **id**:

```
<cdrom>
  <file id=""/>
</cdrom>
```

By default the above operations change permanently the disk that will be visible to the virtual machine after the next boot, but they do not have any effect on the currently running virtual machine. If you want to change the disk that is visible to the current running virtual machine, add the **current=true** parameter. For example, to eject the current disk send a request like this:

```
PUT /ovirt-engine/api/vms/123/cdroms/00000000-0000-0000-0000-000000000000?current=true
```

With a request body like this:

```
<cdrom>
  <file id=""/>
</cdrom>
```



#### IMPORTANT

The changes made with the **current=true** parameter are never persisted, so they won't have any effect after the virtual machine is rebooted.

Table 6.809. Parameters summary

Name	Type	Direction	Summary
<b>cdrom</b>	Cdrom	In/Out	The information about the CDROM device.

Name	Type	Direction	Summary
<b>current</b>	Boolean	In	Indicates if the update should apply to the currently running virtual machine, or to the virtual machine after the next boot.

### 6.260.2.1. current

Indicates if the update should apply to the currently running virtual machine, or to the virtual machine after the next boot. This parameter is optional, and the default value is **false**, which means that by default the update will have effect only after the next boot.

## 6.261. VMCDROMS

Manages the CDROM devices of a virtual machine.

Currently virtual machines have exactly one CDROM device. No new devices can be added, and the existing one can't be removed, thus there are no **add** or **remove** methods. Changing and ejecting CDROM disks is done with the [update](#) method of the [service](#) that manages the CDROM device.

**Table 6.810. Methods summary**

Name	Summary
<b>add</b>	Add a cdrom to a virtual machine identified by the given id.
<b>list</b>	Returns the list of CDROM devices of the virtual machine.

### 6.261.1. add POST

Add a cdrom to a virtual machine identified by the given id.

**Table 6.811. Parameters summary**

Name	Type	Direction	Summary
<b>cdrom</b>	Cdrom	In/Out	

### 6.261.2. list GET

Returns the list of CDROM devices of the virtual machine.

The order of the returned list of CD-ROM devices isn't guaranteed.

**Table 6.812. Parameters summary**

Name	Type	Direction	Summary
<b>cdroms</b>	Cdrom[]	Out	The list of CDROM devices of the virtual machine.

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of CDROMs to return.

### 6.261.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.261.2.2. max

Sets the maximum number of CDROMs to return. If not specified all the CDROMs are returned.

## 6.262. VMCHECKPOINT

A service managing a checkpoint of a virtual machines.

Table 6.813. Methods summary

Name	Summary
<b>get</b>	Returns information about the virtual machine checkpoint.
<b>remove</b>	Remove the virtual machine checkpoint entity.

### 6.262.1. get GET

Returns information about the virtual machine checkpoint.

Table 6.814. Parameters summary

Name	Type	Direction	Summary
<b>checkpoint</b>	Checkpoint	Out	The information about the virtual machine checkpoint entity.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

### 6.262.1.1. checkpoint

The information about the virtual machine checkpoint entity.

```
<checkpoint id="checkpoint-uuid">
  <link href="/ovirt-engine/api/vms/vm-uuid/checkpoints/checkpoint-uuid/disks" rel="disks"/>
  <parent_id>parent-checkpoint-uuid</parent_id>
```

```
<creation_date>xxx</creation_date>
<vm href="/ovirt-engine/api/vms/vm-uuid" id="vm-uuid"/>
</checkpoint>
```

### 6.262.1.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.262.2. remove DELETE

Remove the virtual machine checkpoint entity.

Remove the checkpoint from libvirt and the database.

Table 6.815. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

## 6.263. VMCHECKPOINTDISK

Table 6.816. Methods summary

Name	Summary
<b>get</b>	Retrieves the description of the disk.

### 6.263.1. get GET

Retrieves the description of the disk.

Table 6.817. Parameters summary

Name	Type	Direction	Summary
<b>disk</b>	Disk	Out	The description of the disk.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

#### 6.263.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.264. VMCHECKPOINTDISKS

Table 6.818. Methods summary

Name	Summary
<b>list</b>	Returns the list of disks in checkpoint.

### 6.264.1. list GET

Returns the list of disks in checkpoint.

Table 6.819. Parameters summary

Name	Type	Direction	Summary
<b>disks</b>	<code>Disk[]</code>	Out	The list of retrieved disks.
<b>follow</b>	<code>String</code>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<code>Integer</code>	In	Sets the maximum number of disks to return.

#### 6.264.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.264.1.2. max

Sets the maximum number of disks to return. If not specified, all the disks are returned.

## 6.265. VMCHECKPOINTS

Lists the checkpoints of a virtual machine.

Table 6.820. Methods summary

Name	Summary
<b>list</b>	The list of virtual machine checkpoints.

### 6.265.1. list GET

The list of virtual machine checkpoints.

To get a list of checkpoints for a virtual machine with an id '123', send a request as follows:

```
GET /ovirt-engine/api/vms/123/checkpoints
```

Table 6.821. Parameters summary

Name	Type	Direction	Summary
<b>checkpoints</b>	<a href="#">Checkpoint[]</a>	Out	The information about the virtual machine checkpoint entities.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of virtual machine checkpoints to return.

### 6.265.1.1. checkpoints

The information about the virtual machine checkpoint entities.

```
<checkpoints>
  <checkpoint id="checkpoint-uuid">
    <link href="/ovirt-engine/api/vms/vm-uuid/checkpoints/checkpoint-uuid/disks" rel="disks"/>
    <parent_id>parent-checkpoint-uuid</parent_id>
    <creation_date>xxx</creation_date>
    <vm href="/ovirt-engine/api/vm-uuid" id="vm-uuid"/>
  </checkpoint>
</checkpoints>
```

### 6.265.1.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.265.1.3. max

Sets the maximum number of virtual machine checkpoints to return. If not specified, all the virtual machine checkpoints are returned.

## 6.266. VMDISK

Table 6.822. Methods summary

Name	Summary
<b>activate</b>	
<b>deactivate</b>	
<b>export</b>	
<b>get</b>	
<b>move</b>	

Name	Summary
<b>reduce</b>	Reduces the size of the disk image.
<b>remove</b>	Detach the disk from the virtual machine.
<b>update</b>	

### 6.266.1. activate POST

Table 6.823. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the activation should be performed asynchronously.

### 6.266.2. deactivate POST

Table 6.824. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the deactivation should be performed asynchronously.

### 6.266.3. export POST

Table 6.825. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the export should be performed asynchronously.
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.

### 6.266.4. get GET

Table 6.826. Parameters summary

Name	Type	Direction	Summary
<b>disk</b>	Disk	Out	

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

#### 6.266.4.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.266.5. move POST

Table 6.827. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the move should be performed asynchronously.
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.

#### 6.266.6. reduce POST

Reduces the size of the disk image.

Invokes *reduce* on the logical volume (i.e. this is only applicable for block storage domains). This is applicable for floating disks and disks attached to non-running virtual machines. There is no need to specify the size as the optimal size is calculated automatically.

Table 6.828. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

#### 6.266.7. remove DELETE

Detach the disk from the virtual machine.



#### NOTE

In version 3 of the API this used to also remove the disk completely from the system, but starting with version 4 it doesn't. If you need to remove it completely use the [remove method of the top level disk service](#).

Table 6.829. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

### 6.266.8. update PUT

Table 6.830. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>disk</b>	Disk	In/Out	

## 6.267. VMDISKS

Table 6.831. Methods summary

Name	Summary
<b>add</b>	
<b>list</b>	Returns the list of disks of the virtual machine.

### 6.267.1. add POST

Table 6.832. Parameters summary

Name	Type	Direction	Summary
<b>disk</b>	Disk	In/Out	

### 6.267.2. list GET

Returns the list of disks of the virtual machine.

The order of the returned list of disks isn't guaranteed.

Table 6.833. Parameters summary

Name	Type	Direction	Summary
<b>disks</b>	Disk[]	Out	
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
<b>max</b>	Integer	In	Sets the maximum number of disks to return.

### 6.267.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.267.2.2. max

Sets the maximum number of disks to return. If not specified all the disks are returned.

## 6.268. VMGRAPHICSCONSOLE

Table 6.834. Methods summary

Name	Summary
<b>get</b>	Retrieves the graphics console configuration of the virtual machine.
<b>proxyticket</b>	
<b>remoteviewerconnectionfile</b>	Generates the file which is compatible with <b>remote-viewer</b> client.
<b>remove</b>	Remove the graphics console from the virtual machine.
<b>ticket</b>	Generates a time-sensitive authentication token for accessing this virtual machine's console.

### 6.268.1. get GET

Retrieves the graphics console configuration of the virtual machine.



#### IMPORTANT

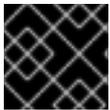
By default, when the **current** parameter is not specified, the data returned corresponds to the next execution of the virtual machine. In the current implementation of the system this means that the **address** and **port** attributes will not be populated because the system does not know what address and port will be used for the next execution. Since in most cases those attributes are needed, it is strongly advised to always explicitly include the **current** parameter with the value **true**.

Table 6.835. Parameters summary

Name	Type	Direction	Summary
<b>console</b>	GraphicsConsole	Out	The information about the graphics console of the virtual machine.
<b>current</b>	Boolean	In	Specifies if the data returned should correspond to the next execution of the virtual machine, or to the current execution.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

### 6.268.1.1. current

Specifies if the data returned should correspond to the next execution of the virtual machine, or to the current execution.



#### IMPORTANT

The **address** and **port** attributes will not be populated unless the value is **true**.

For example, to get data for the current execution of the virtual machine, including the **address** and **port** attributes, send a request like this:

```
GET /ovit-engine/api/vms/123/graphicsconsoles/456?current=true
```

The default value is **false**.

### 6.268.1.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.268.2. proxyticket POST

Table 6.836. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the generation of the ticket should be performed asynchronously.
<b>proxy_ticket</b>	ProxyTicket	Out	

### 6.268.3. remoteviewerconnectionfile POST

Generates the file which is compatible with **remote-viewer** client.

Use the following request to generate remote viewer connection file of the graphics console. Note that this action generates the file only if virtual machine is running.

## POST /ovirt-engine/api/vms/123/graphicsconsoles/456/remotewriterconnectionfile

The **remotewriterconnectionfile** action does not take any action specific parameters, so the request body should contain an empty **action**:

```
<action/>
```

The response contains the file, which can be used with **remote-viewer** client.

```
<action>
  <remote_viewer_connection_file>
    [virt-viewer]
    type=spice
    host=192.168.1.101
    port=-1
    password=123456789
    delete-this-file=1
    fullscreen=0
    toggle-fullscreen=shift+f11
    release-cursor=shift+f12
    secure-attention=ctrl+alt+end
    tls-port=5900
    enable-smartcard=0
    enable-usb-autoshare=0
    usb-filter=null
    tls-ciphers=DEFAULT
    host-subject=O=local,CN=example.com
    ca=...
  </remote_viewer_connection_file>
</action>
```

E.g., to fetch the content of remote viewer connection file and save it into temporary file, user can use oVirt Python SDK as follows:

```
# Find the virtual machine:
vm = vms_service.list(search='name=myvm')[0]

# Locate the service that manages the virtual machine, as that is where
# the locators are defined:
vm_service = vms_service.vm_service(vm.id)

# Find the graphic console of the virtual machine:
graphics_consoles_service = vm_service.graphics_consoles_service()
graphics_console = graphics_consoles_service.list()[0]

# Generate the remote viewer connection file:
console_service = graphics_consoles_service.console_service(graphics_console.id)
remote_viewer_connection_file = console_service.remote_viewer_connection_file()

# Write the content to file "/tmp/remote_viewer_connection_file.vv"
path = "/tmp/remote_viewer_connection_file.vv"
with open(path, "w") as f:
    f.write(remote_viewer_connection_file)
```

When you create the remote viewer connection file, then you can connect to virtual machine graphic console, as follows:

```
#!/bin/sh -ex

remote-viewer --ovirt-ca-file=/etc/pki/ovirt-engine/ca.pem /tmp/remote_viewer_connection_file.vv
```

Table 6.837. Parameters summary

Name	Type	Direction	Summary
<b>remote_viewer_connection_file</b>	String	Out	Contains the file which is compatible with <b>remote-viewer</b> client.

### 6.268.3.1. remote\_viewer\_connection\_file

Contains the file which is compatible with **remote-viewer** client.

User can use the content of this attribute to create a file, which can be passed to **remote-viewer** client to connect to virtual machine graphic console.

### 6.268.4. remove DELETE

Remove the graphics console from the virtual machine.

Table 6.838. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

### 6.268.5. ticket POST

Generates a time-sensitive authentication token for accessing this virtual machine's console.

```
POST /ovirt-engine/api/vms/123/graphicsconsoles/456/ticket
```

The client-provided action optionally includes a desired ticket value and/or an expiry time in seconds.

In any case, the response specifies the actual ticket value and expiry used.

```
<action>
  <ticket>
    <value>abcd12345</value>
    <expiry>120</expiry>
  </ticket>
</action>
```

Table 6.839. Parameters summary

Name	Type	Direction	Summary
<b>ticket</b>	<a href="#">Ticket</a>	In/Out	The generated ticket that can be used to access this console.

## 6.269. VMGRAPHICSCONSOLES

Table 6.840. Methods summary

Name	Summary
<b>add</b>	Add new graphics console to the virtual machine.
<b>list</b>	Lists all the configured graphics consoles of the virtual machine.

### 6.269.1. add POST

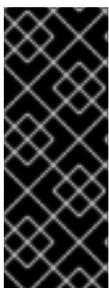
Add new graphics console to the virtual machine.

Table 6.841. Parameters summary

Name	Type	Direction	Summary
<b>console</b>	<a href="#">GraphicsConsole</a>	In/Out	

### 6.269.2. list GET

Lists all the configured graphics consoles of the virtual machine.



#### IMPORTANT

By default, when the **current** parameter is not specified, the data returned corresponds to the next execution of the virtual machine. In the current implementation of the system this means that the **address** and **port** attributes will not be populated because the system does not know what address and port will be used for the next execution. Since in most cases those attributes are needed, it is strongly advised to always explicitly include the **current** parameter with the value **true**.

The order of the returned list of graphics consoles is not guaranteed.

Table 6.842. Parameters summary

Name	Type	Direction	Summary
<b>consoles</b>	<a href="#">GraphicsConsole[]</a>	Out	The list of graphics consoles of the virtual machine.

Name	Type	Direction	Summary
<b>current</b>	Boolean	In	Specifies if the data returned should correspond to the next execution of the virtual machine, or to the current execution.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of consoles to return.

### 6.269.2.1. current

Specifies if the data returned should correspond to the next execution of the virtual machine, or to the current execution.



#### IMPORTANT

The **address** and **port** attributes will not be populated unless the value is **true**.

For example, to get data for the current execution of the virtual machine, including the **address** and **port** attributes, send a request like this:

```
GET /ovirt-engine/api/vms/123/graphicsconsoles?current=true
```

The default value is **false**.

### 6.269.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.269.2.3. max

Sets the maximum number of consoles to return. If not specified all the consoles are returned.

## 6.270. VMHOSTDEVICE

A service to manage individual host device attached to a virtual machine.

Table 6.843. Methods summary

Name	Summary
<b>get</b>	Retrieve information about particular host device attached to given virtual machine.
<b>remove</b>	Remove the attachment of this host device from given virtual machine.

## 6.270.1. get GET

Retrieve information about particular host device attached to given virtual machine.

Example:

```
GET /ovirt-engine/api/vms/123/hostdevices/456
```

```
<host_device href="/ovirt-engine/api/hosts/543/devices/456" id="456">
  <name>pci_0000_04_00_0</name>
  <capability>pci</capability>
  <iommu_group>30</iommu_group>
  <placeholder>true</placeholder>
  <product id="0x13ba">
    <name>GM107GL [Quadro K2200]</name>
  </product>
  <vendor id="0x10de">
    <name>NVIDIA Corporation</name>
  </vendor>
  <host href="/ovirt-engine/api/hosts/543" id="543"/>
  <parent_device href="/ovirt-engine/api/hosts/543/devices/456" id="456">
    <name>pci_0000_00_03_0</name>
  </parent_device>
  <vm href="/ovirt-engine/api/vms/123" id="123"/>
</host_device>
```

Table 6.844. Parameters summary

Name	Type	Direction	Summary
<b>device</b>	HostDevice	Out	Retrieved information about the host device attached to given virtual machine.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

### 6.270.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.270.2. remove DELETE

Remove the attachment of this host device from given virtual machine.



### NOTE

In case this device serves as an IOMMU placeholder, it cannot be removed (remove will result only in setting its **placeholder** flag to **true**). Note that all IOMMU placeholder devices will be removed automatically as soon as there will be no more non-placeholder devices (all devices from given IOMMU group are detached).

```
DELETE /ovirt-engine/api/vms/123/hostdevices/456
```

Table 6.845. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

## 6.271. VMHOSTDEVICES

A service to manage host devices attached to a virtual machine.

Table 6.846. Methods summary

Name	Summary
<b>add</b>	Attach target device to given virtual machine.
<b>list</b>	List the host devices assigned to given virtual machine.

### 6.271.1. add POST

Attach target device to given virtual machine.

Example:

```
POST /ovirt-engine/api/vms/123/hostdevices
```

With request body of type [HostDevice](#), for example

```
<host_device id="123" />
```



#### NOTE

A necessary precondition for a successful host device attachment is that the virtual machine must be pinned to **exactly** one host. The device ID is then taken relative to this host.



#### NOTE

Attachment of a PCI device that is part of a bigger IOMMU group will result in attachment of the remaining devices from that IOMMU group as "placeholders". These devices are then identified using the **placeholder** attribute of the [HostDevice](#) type set to **true**.

In case you want attach a device that already serves as an IOMMU placeholder, simply issue an explicit Add operation for it, and its **placeholder** flag will be cleared, and the device will be accessible to the virtual machine.

Table 6.847. Parameters summary

Name	Type	Direction	Summary
<b>device</b>	<a href="#">HostDevice</a>	In/Out	The host device to be attached to given virtual machine.

### 6.271.2. list GET

List the host devices assigned to given virtual machine.

The order of the returned list of devices isn't guaranteed.

Table 6.848. Parameters summary

Name	Type	Direction	Summary
<b>device</b>	<a href="#">HostDevice[ ]</a>	Out	Retrieved list of host devices attached to given virtual machine.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of devices to return.

#### 6.271.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.271.2.2. max

Sets the maximum number of devices to return. If not specified all the devices are returned.

## 6.272. VMMEDATEDDEVICE

Table 6.849. Methods summary

Name	Summary
<b>get</b>	Retrieves the configuration of mediated devices in the virtual machine.
<b>remove</b>	Remove the mediated device from the virtual machine.
<b>update</b>	Updates the information about the mediated device.

### 6.272.1. get GET

Retrieves the configuration of mediated devices in the virtual machine.

Table 6.850. Parameters summary

Name	Type	Direction	Summary
<b>device</b>	VmMediated Device	Out	The information about the mediated device of the virtual machine.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

### 6.272.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.272.2. remove DELETE

Remove the mediated device from the virtual machine.

Table 6.851. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

### 6.272.3. update PUT

Updates the information about the mediated device.

You can update the information using **specParams** element.

For example, to update a mediated device, send a request like this:

```
PUT /ovirt-engine/api/vms/123/mediateddevices/00000000-0000-0000-0000-000000000000
<vm_mediated_device>
  <spec_params>
    <property>
      <name>mdevType</name>
      <value>nvidia-11</value>
    </property>
  </spec_params>
</vm_mediated_device>
```

with response body:

```
<vm_mediated_device href="/ovirt-engine/api/vms/123/mediateddevices/00000000-0000-0000-0000-000000000000" id="00000000-0000-0000-0000-000000000000">
  <vm href="/ovirt-engine/api/vms/123" id="123"/>
  <spec_params>
    <property>
      <name>mdevType</name>
      <value>nvidia-11</value>
```

```

</property>
</spec_params>
</vm_mediated_device>

```

Table 6.852. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>device</b>	VmMediated Device	In/Out	The information about the mediated device.

### 6.272.3.1. device

The information about the mediated device.

The request data must contain **specParams** properties. The response data contains complete information about the updated mediated device.

## 6.273. VM-MEDIATED-DEVICES

A service that manages mediated devices of a VM.

Table 6.853. Methods summary

Name	Summary
<b>add</b>	Add a new mediated device to the virtual machine.
<b>list</b>	Lists all the configured mediated devices of the virtual machine.

### 6.273.1. add POST

Add a new mediated device to the virtual machine.

Table 6.854. Parameters summary

Name	Type	Direction	Summary
<b>device</b>	VmMediated Device	In/Out	

### 6.273.2. list GET

Lists all the configured mediated devices of the virtual machine.

The order of the returned list of mediated devices is not guaranteed.

Table 6.855. Parameters summary

Name	Type	Direction	Summary
<b>devices</b>	<a href="#">VmMediated Device[]</a>	Out	The list of mediated devices of the virtual machine.
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of mediated devices to return.

### 6.273.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.273.2.2. max

Sets the maximum number of mediated devices to return. If not specified all the mediated devices are returned.

## 6.274. VMNIC

Table 6.856. Methods summary

Name	Summary
<b>activate</b>	
<b>deactivate</b>	
<b>get</b>	
<b>remove</b>	Removes the NIC.
<b>update</b>	Updates the NIC.

### 6.274.1. activate POST

Table 6.857. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the activation should be performed asynchronously.

### 6.274.2. deactivate POST

Table 6.858. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the deactivation should be performed asynchronously.

### 6.274.3. get GET

Table 6.859. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>nic</b>	Nic	Out	

#### 6.274.3.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.274.4. remove DELETE

Removes the NIC.

For example, to remove the NIC with id **456** from the virtual machine with id **123** send a request like this:

```
DELETE /ovirt-engine/api/vms/123/nics/456
```



#### IMPORTANT

The hotplugging feature only supports virtual machine operating systems with hotplugging operations. Example operating systems include:

- Red Hat Enterprise Linux 6
- Red Hat Enterprise Linux 5
- Windows Server 2008 and
- Windows Server 2003

Table 6.860. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

## 6.274.5. update PUT

Updates the NIC.

For example, to update the NIC having with **456** belonging to virtual the machine with id **123** send a request like this:

```
PUT /ovirt-engine/api/vms/123/nics/456
```

With a request body like this:

```
<nic>
  <name>mynic</name>
  <interface>e1000</interface>
  <vnic_profile id='789' />
</nic>
```



### IMPORTANT

The hotplugging feature only supports virtual machine operating systems with hotplugging operations. Example operating systems include:

- Red Hat Enterprise Linux 6
- Red Hat Enterprise Linux 5
- Windows Server 2008 and
- Windows Server 2003

Table 6.861. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>nic</b>	Nic	In/Out	

## 6.275. VMNICS

Table 6.862. Methods summary

Name	Summary
<b>add</b>	Adds a NIC to the virtual machine.
<b>list</b>	Returns the list of NICs of the virtual machine.

### 6.275.1. add POST

Adds a NIC to the virtual machine.

The following example adds to the virtual machine **123** a network interface named **mynic** using **virtio** and the NIC profile **456**.

```
POST /ovirt-engine/api/vms/123/nics
```

```
<nic>
  <name>mynic</name>
  <interface>virtio</interface>
  <vnic_profile id="456"/>
</nic>
```

The following example sends that request using **curl**:

```
curl \
--request POST \
--header "Version: 4" \
--header "Content-Type: application/xml" \
--header "Accept: application/xml" \
--user "admin@internal:mypassword" \
--cacert /etc/pki/ovirt-engine/ca.pem \
--data '
<nic>
  <name>mynic</name>
  <interface>virtio</interface>
  <vnic_profile id="456"/>
</nic>
'\
https://myengine.example.com/ovirt-engine/api/vms/123/nics
```



### IMPORTANT

The hotplugging feature only supports virtual machine operating systems with hotplugging operations. Example operating systems include:

- Red Hat Enterprise Linux 6
- Red Hat Enterprise Linux 5
- Windows Server 2008 and
- Windows Server 2003

Table 6.863. Parameters summary

Name	Type	Direction	Summary
<b>nic</b>	Nic	In/Out	

### 6.275.2. list GET

Returns the list of NICs of the virtual machine.

The order of the returned list of NICs isn't guaranteed.

**Table 6.864. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of NICs to return.
<b>nic</b>	Nic[]	Out	

### 6.275.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.275.2.2. max

Sets the maximum number of NICs to return. If not specified all the NICs are returned.

## 6.276. VMNUMANODE

**Table 6.865. Methods summary**

Name	Summary
<b>get</b>	
<b>remove</b>	Removes a virtual NUMA node.
<b>update</b>	Updates a virtual NUMA node.

### 6.276.1. get GET

**Table 6.866. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>node</b>	VirtualNumaNode	Out	

#### 6.276.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.276.2. remove DELETE

Removes a virtual NUMA node.

An example of removing a virtual NUMA node:

```
DELETE /ovirt-engine/api/vms/123/numanodes/456
```



#### NOTE

It's required to remove the numa nodes from the highest index first.

Table 6.867. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

### 6.276.3. update PUT

Updates a virtual NUMA node.

An example of pinning a virtual NUMA node to a physical NUMA node on the host:

```
PUT /ovirt-engine/api/vms/123/numanodes/456
```

The request body should contain the following:

```
<vm_numa_node>
  <numa_node_pins>
    <numa_node_pin>
      <index>0</index>
    </numa_node_pin>
  </numa_node_pins>
</vm_numa_node>
```

Table 6.868. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>node</b>	VirtualNuma Node	In/Out	

## 6.277. VMNUMANODES

Table 6.869. Methods summary

Name	Summary
<b>add</b>	Creates a new virtual NUMA node for the virtual machine.
<b>list</b>	Lists virtual NUMA nodes of a virtual machine.

### 6.277.1. add POST

Creates a new virtual NUMA node for the virtual machine.

An example of creating a NUMA node:

```
POST /ovirt-engine/api/vms/c7ecd2dc/numanodes
```

```
Accept: application/xml
```

```
Content-type: application/xml
```

The request body can contain the following:

```
<vm_numa_node>
  <cpu>
    <cores>
      <core>
        <index>0</index>
      </core>
    </cores>
  </cpu>
  <index>0</index>
  <memory>1024</memory>
  <numa_tune_mode>strict</numa_tune_mode>
</vm_numa_node>
```

Table 6.870. Parameters summary

Name	Type	Direction	Summary
<b>node</b>	VirtualNuma Node	In/Out	

### 6.277.2. list GET

Lists virtual NUMA nodes of a virtual machine.

The order of the returned list of NUMA nodes isn't guaranteed.

Table 6.871. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of nodes to return.
<b>nodes</b>	VirtualNuma Node[]	Out	

### 6.277.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.277.2.2. max

Sets the maximum number of nodes to return. If not specified all the nodes are returned.

## 6.278. VMPOOL

A service to manage a virtual machines pool.

Table 6.872. Methods summary

Name	Summary
<b>allocatevm</b>	This operation allocates a virtual machine in the virtual machine pool.
<b>get</b>	Get the virtual machine pool.
<b>remove</b>	Removes a virtual machine pool.
<b>update</b>	Update the virtual machine pool.

### 6.278.1. allocatevm POST

This operation allocates a virtual machine in the virtual machine pool.

```
POST /ovirt-engine/api/vmpools/123/allocatevm
```

The allocate virtual machine action does not take any action specific parameters, so the request body should contain an empty **action**:

```
<action/>
```

Table 6.873. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the allocation should be performed asynchronously.

## 6.278.2. get GET

Get the virtual machine pool.

GET /ovirt-engine/api/vmpools/123

You will get a XML response like that one:

```
<vm_pool id="123">
  <actions>...</actions>
  <name>MyVmPool</name>
  <description>MyVmPool description</description>
  <link href="/ovirt-engine/api/vmpools/123/permissions" rel="permissions"/>
  <max_user_vms>1</max_user_vms>
  <prestarted_vms>0</prestarted_vms>
  <size>100</size>
  <stateful>>false</stateful>
  <type>automatic</type>
  <use_latest_template_version>>false</use_latest_template_version>
  <cluster id="123"/>
  <template id="123"/>
  <vm id="123">...</vm>
  ...
</vm_pool>
```

Table 6.874. Parameters summary

Name	Type	Direction	Summary
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>pool</b>	VmPool	Out	Retrieved virtual machines pool.

### 6.278.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.278.3. remove DELETE

Removes a virtual machine pool.

■

DELETE /ovirt-engine/api/vmpools/123

Table 6.875. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

#### 6.278.4. update PUT

Update the virtual machine pool.

PUT /ovirt-engine/api/vmpools/123

The **name**, **description**, **size**, **prestarted\_vms** and **max\_user\_vms** attributes can be updated after the virtual machine pool has been created.

```
<vmpool>
  <name>VM_Pool_B</name>
  <description>Virtual Machine Pool B</description>
  <size>3</size>
  <prestarted_vms>1</size>
  <max_user_vms>2</size>
</vmpool>
```

Table 6.876. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>pool</b>	VmPool	In/Out	The virtual machine pool that is being updated.
<b>seal</b>	Boolean	In	Specifies if virtual machines created for the pool should be sealed after creation.

##### 6.278.4.1. seal

Specifies if virtual machines created for the pool should be sealed after creation.

If this optional parameter is provided, and its value is **true**, virtual machines created for the pool will be sealed after creation. If the value is 'false', the virtual machines will not be sealed. If the parameter is not provided, the virtual machines will be sealed, only if they are created from a sealed template and their guest OS is not set to Windows. This parameter affects only the virtual machines created when the pool is updated.

For example, to update a virtual machine pool and to seal the additional virtual machines that are created, send a request like this:

```
PUT /ovirt-engine/api/vmpools/123?seal=true
```

With the following body:

```
<vmpool>
  <name>VM_Pool_B</name>
  <description>Virtual Machine Pool B</description>
  <size>7</size>
</vmpool>
```

## 6.279. VMPOOLS

Provides read-write access to virtual machines pools.

Table 6.877. Methods summary

Name	Summary
<b>add</b>	Creates a new virtual machine pool.
<b>list</b>	Get a list of available virtual machines pools.

### 6.279.1. add POST

Creates a new virtual machine pool.

A new pool requires the **name**, **cluster** and **template** attributes. Identify the cluster and template with the **id** or **name** nested attributes:

```
POST /ovirt-engine/api/vmpools
```

With the following body:

```
<vmpool>
  <name>mypool</name>
  <cluster id="123"/>
  <template id="456"/>
</vmpool>
```

Table 6.878. Parameters summary

Name	Type	Direction	Summary
<b>pool</b>	VmPool	In/Out	Pool to add.
<b>seal</b>	Boolean	In	Specifies if virtual machines created for the pool should be sealed after creation.

#### 6.279.1.1. seal

Specifies if virtual machines created for the pool should be sealed after creation.

If this optional parameter is provided, and its value is **true**, virtual machines created for the pool will be sealed after creation. If the value is 'false', the virtual machines will not be sealed. If the parameter is not provided, the virtual machines will be sealed, only if they are created from a sealed template and their guest OS is not set to Windows. This parameter affects only the virtual machines created when the pool is created.

For example, to create a virtual machine pool with 5 virtual machines and to seal them, send a request like this:

```
POST /ovirt-engine/api/vmpools?seal=true
```

With the following body:

```
<vmpool>
  <name>mypool</name>
  <cluster id="123"/>
  <template id="456"/>
  <size>5</size>
</vmpool>
```

## 6.279.2. list GET

Get a list of available virtual machines pools.

```
GET /ovirt-engine/api/vmpools
```

You will receive the following response:

```
<vm_pools>
  <vm_pool id="123">
    ...
  </vm_pool>
  ...
</vm_pools>
```

The order of the returned list of pools is guaranteed only if the **sortby** clause is included in the **search** parameter.

**Table 6.879. Parameters summary**

Name	Type	Direction	Summary
<b>case_sensitive</b>	Boolean	In	Indicates if the search performed using the <b>search</b> parameter should be performed taking case into account.
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of pools to return.
<b>pools</b>	<a href="#">VmPool[]</a>	Out	Retrieved pools.
<b>search</b>	<a href="#">String</a>	In	A query string used to restrict the returned pools.

### 6.279.2.1. case\_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

### 6.279.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.279.2.3. max

Sets the maximum number of pools to return. If this value is not specified, all of the pools are returned.

## 6.280. VMREPORTEDDEVICE

Table 6.880. Methods summary

Name	Summary
<b>get</b>	

### 6.280.1. get GET

Table 6.881. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>reported_device</b>	<a href="#">ReportedDevice</a>	Out	

#### 6.280.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.281. VMREPORTEDDEVICES

Table 6.882. Methods summary

Name	Summary
<b>list</b>	Returns the list of reported devices of the virtual machine.

### 6.281.1. list GET

Returns the list of reported devices of the virtual machine.

The order of the returned list of devices isn't guaranteed.

Table 6.883. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of devices to return.
<b>reported_device</b>	<a href="#">ReportedDevice[]</a>	Out	

#### 6.281.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.281.1.2. max

Sets the maximum number of devices to return. If not specified all the devices are returned.

## 6.282. VMSESSION

Table 6.884. Methods summary

Name	Summary
<b>get</b>	

### 6.282.1. get GET

Table 6.885. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>session</b>	<a href="#">Session</a>	Out	

### 6.282.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

## 6.283. VMSESSIONS

Provides information about virtual machine user sessions.

Table 6.886. Methods summary

Name	Summary
<b>list</b>	Lists all user sessions for this virtual machine.

### 6.283.1. list GET

Lists all user sessions for this virtual machine.

For example, to retrieve the session information for virtual machine **123** send a request like this:

```
GET /ovirt-engine/api/vms/123/sessions
```

The response body will contain something like this:

```
<sessions>
  <session href="/ovirt-engine/api/vms/123/sessions/456" id="456">
    <console_user>true</console_user>
    <ip>
      <address>192.168.122.1</address>
    </ip>
    <user href="/ovirt-engine/api/users/789" id="789"/>
    <vm href="/ovirt-engine/api/vms/123" id="123"/>
  </session>
  ...
</sessions>
```

The order of the returned list of sessions isn't guaranteed.

Table 6.887. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
<b>max</b>	<a href="#">Integer</a>	In	Sets the maximum number of sessions to return.
<b>sessions</b>	<a href="#">Session[]</a>	Out	

#### 6.283.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.283.1.2. max

Sets the maximum number of sessions to return. If not specified all the sessions are returned.

## 6.284. VMWATCHDOG

A service managing a watchdog on virtual machines.

Table 6.888. Methods summary

Name	Summary
<b>get</b>	Returns the information about the watchdog.
<b>remove</b>	Removes the watchdog from the virtual machine.
<b>update</b>	Updates the information about the watchdog.

#### 6.284.1. get GET

Returns the information about the watchdog.

Table 6.889. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>watchdog</b>	<a href="#">Watchdog</a>	Out	The information about the watchdog.

#### 6.284.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.284.1.2. watchdog

The information about the watchdog.

The information consists of **model** element, **action** element and the reference to the virtual machine. It may look like this:

```
<watchdogs>
  <watchdog href="/ovirt-engine/api/vms/123/watchdogs/00000000-0000-0000-0000-000000000000"
id="00000000-0000-0000-0000-000000000000">
  <vm href="/ovirt-engine/api/vms/123" id="123"/>
  <action>poweroff</action>
  <model>i6300esb</model>
</watchdog>
</watchdogs>
```

### 6.284.2. remove DELETE

Removes the watchdog from the virtual machine.

For example, to remove a watchdog from a virtual machine, send a request like this:

```
DELETE /ovirt-engine/api/vms/123/watchdogs/00000000-0000-0000-0000-000000000000
```

Table 6.890. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

### 6.284.3. update PUT

Updates the information about the watchdog.

You can update the information using **action** and **model** elements.

For example, to update a watchdog, send a request like this:

```
PUT /ovirt-engine/api/vms/123/watchdogs
<watchdog>
  <action>reset</action>
</watchdog>
```

with response body:

```
<watchdog href="/ovirt-engine/api/vms/123/watchdogs/00000000-0000-0000-0000-000000000000"
id="00000000-0000-0000-0000-000000000000">
  <vm href="/ovirt-engine/api/vms/123" id="123"/>
  <action>reset</action>
  <model>i6300esb</model>
</watchdog>
```

Table 6.891. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>watchdog</b>	Watchdog	In/Out	The information about the watchdog.

### 6.284.3.1. watchdog

The information about the watchdog.

The request data must contain at least one of **model** and **action** elements. The response data contains complete information about the updated watchdog.

## 6.285. VMWATCHDOGS

Lists the watchdogs of a virtual machine.

Table 6.892. Methods summary

Name	Summary
<b>add</b>	Adds new watchdog to the virtual machine.
<b>list</b>	The list of watchdogs of the virtual machine.

### 6.285.1. add POST

Adds new watchdog to the virtual machine.

For example, to add a watchdog to a virtual machine, send a request like this:

```
POST /ovirt-engine/api/vms/123/watchdogs
<watchdog>
  <action>poweroff</action>
  <model>i6300esb</model>
</watchdog>
```

with response body:

```
<watchdog href="/ovirt-engine/api/vms/123/watchdogs/00000000-0000-0000-0000-000000000000"
id="00000000-0000-0000-0000-000000000000">
  <vm href="/ovirt-engine/api/vms/123" id="123"/>
  <action>poweroff</action>
  <model>i6300esb</model>
</watchdog>
```

Table 6.893. Parameters summary

Name	Type	Direction	Summary
<b>watchdog</b>	Watchdog	In/Out	The information about the watchdog.

### 6.285.1.1. watchdog

The information about the watchdog.

The request data must contain **model** element (such as **i6300esb**) and **action** element (one of **none**, **reset**, **poweroff**, **dump**, **pause**). The response data additionally contains references to the added watchdog and to the virtual machine.

### 6.285.2. list GET

The list of watchdogs of the virtual machine.

The order of the returned list of watchdogs isn't guaranteed.

Table 6.894. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of watchdogs to return.
<b>watchdogs</b>	Watchdog[]	Out	The information about the watchdog.

#### 6.285.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.285.2.2. max

Sets the maximum number of watchdogs to return. If not specified all the watchdogs are returned.

#### 6.285.2.3. watchdogs

The information about the watchdog.

The information consists of **model** element, **action** element and the reference to the virtual machine. It may look like this:

```
<watchdogs>
  <watchdog href="/ovirt-engine/api/vms/123/watchdogs/00000000-0000-0000-0000-000000000000"
id="00000000-0000-0000-0000-000000000000">
    <vm href="/ovirt-engine/api/vms/123" id="123"/>
    <action>poweroff</action>
```

```
<model>i6300esb</model>
</watchdog>
</watchdogs>
```

## 6.286. VMS

Table 6.895. Methods summary

Name	Summary
<b>add</b>	Creates a new virtual machine.
<b>list</b>	Returns the list of virtual machines of the system.

### 6.286.1. add POST

Creates a new virtual machine.

The virtual machine can be created in different ways:

- From a template. In this case the identifier or name of the template must be provided. For example, using a plain shell script and XML:

```
#!/bin/sh -ex

url="https://engine.example.com/ovirt-engine/api"
user="admin@internal"
password="..."
curl \
--verbose \
--cacert /etc/pki/ovirt-engine/ca.pem \
--user "${user}:${password}" \
--request POST \
--header "Version: 4" \
--header "Content-Type: application/xml" \
--header "Accept: application/xml" \
--data '
<vm>
  <name>myvm</name>
  <template>
    <name>Blank</name>
  </template>
  <cluster>
    <name>mycluster</name>
  </cluster>
</vm>
'\
"${url}/vms"
```

- From a snapshot. In this case the identifier of the snapshot has to be provided. For example, using a plain shell script and XML:

```
#!/bin/sh -ex
```

```

url="https://engine.example.com/ovirt-engine/api"
user="admin@internal"
password="..."
curl \
--verbose \
--cacert /etc/pki/ovirt-engine/ca.pem \
--user "${user}:${password}" \
--request POST \
--header "Content-Type: application/xml" \
--header "Accept: application/xml" \
--data '
<vm>
  <name>myvm</name>
  <snapshots>
    <snapshot id="266742a5-6a65-483c-816d-d2ce49746680"/>
  </snapshots>
  <cluster>
    <name>mycluster</name>
  </cluster>
</vm>
'\
"${url}/vms"

```

When creating a virtual machine from a template or from a snapshot it is usually useful to explicitly indicate in what storage domain to create the disks for the virtual machine. If the virtual machine is created from a template then this is achieved passing a set of **disk\_attachment** elements that indicate the mapping:

```

<vm>
...
<disk_attachments>
  <disk_attachment>
    <disk id="8d4bd566-6c86-4592-a4a7-912dbf93c298">
      <storage_domains>
        <storage_domain id="9cb6cb0a-cf1d-41c2-92ca-5a6d665649c9"/>
      </storage_domains>
    </disk>
  <disk_attachment>
</disk_attachments>
</vm>

```

When the virtual machine is created from a snapshot this set of disks is slightly different, it uses the **image\_id** attribute instead of **id**.

```

<vm>
...
<disk_attachments>
  <disk_attachment>
    <disk>
      <image_id>8d4bd566-6c86-4592-a4a7-912dbf93c298</image_id>
      <storage_domains>
        <storage_domain id="9cb6cb0a-cf1d-41c2-92ca-5a6d665649c9"/>
      </storage_domains>
    </disk>

```

```

    <disk_attachment>
  </disk_attachments>
</vm>

```

It is possible to specify additional virtual machine parameters in the XML description, e.g. a virtual machine of **desktop** type, with 2 GiB of RAM and additional description can be added sending a request body like the following:

```

<vm>
  <name>myvm</name>
  <description>My Desktop Virtual Machine</description>
  <type>desktop</type>
  <memory>2147483648</memory>
  ...
</vm>

```

A bootable CDROM device can be set like this:

```

<vm>
  ...
  <os>
    <boot dev="cdrom"/>
  </os>
</vm>

```

In order to boot from CDROM, you first need to insert a disk, as described in the [CDROM service](#). Then booting from that CDROM can be specified using the **os.boot.devices** attribute:

```

<vm>
  ...
  <os>
    <boot>
      <devices>
        <device>cdrom</device>
      </devices>
    </boot>
  </os>
</vm>

```

In all cases the name or identifier of the cluster where the virtual machine will be created is mandatory.

**Table 6.896. Parameters summary**

Name	Type	Direction	Summary
<b>auto_pinning_policy</b>	<a href="#">AutoPinning Policy</a>	In	Specifies if and how the auto CPU and NUMA configuration is applied.
<b>clone</b>	<a href="#">Boolean</a>	In	Specifies if the virtual machine should be independent of the template.
<b>clone_permissions</b>	<a href="#">Boolean</a>	In	Specifies if the permissions of the template should be copied to the virtual machine.

Name	Type	Direction	Summary
<b>filter</b>	Boolean	In	Relevant for admin users only.
<b>seal</b>	Boolean	In	Specifies if the virtual machine should be sealed after creation.
<b>vm</b>	Vm	In/Out	

### 6.286.1.1. auto\_pinning\_policy

Specifies if and how the auto CPU and NUMA configuration is applied.



#### IMPORTANT

Since version 4.5 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. Instead please use POST followed by [add operation](#).

An example for a request:

```
POST /ovirt-engine/api/vms?auto_pinning_policy=existing/adjust
```

With a request body like this:

```
<vm>
  <name>myvm</name>
  <template>
    <name>mytemplate</name>
  </template>
  <cluster>
    <name>mycluster</name>
  </cluster>
  <placement_policy>
    <hosts>
      <host>
        <name>myhost</name>
      </host>
    </hosts>
  </placement_policy>
</vm>
```

### 6.286.1.2. clone

Specifies if the virtual machine should be independent of the template.

When a virtual machine is created from a template by default the disks of the virtual machine depend on the disks of the template, they are using the *copy on write* mechanism so that only the differences from the template take up real storage space. If this parameter is specified and the value is **true** then the disks of the created virtual machine will be *cloned*, and independent of the template. For example, to create an independent virtual machine, send a request like this:

POST /ovirt-engine/vms?clone=true

With a request body like this:

```
<vm>
  <name>myvm<name>
  <template>
    <name>mytemplate<name>
  </template>
  <cluster>
    <name>mycluster<name>
  </cluster>
</vm>
```



#### NOTE

When this parameter is **true** the permissions of the template will also be copied, as when using **clone\_permissions=true**.

### 6.286.1.3. clone\_permissions

Specifies if the permissions of the template should be copied to the virtual machine.

If this optional parameter is provided, and its value is **true** then the permissions of the template (only the direct ones, not the inherited ones) will be copied to the created virtual machine. For example, to create a virtual machine from the **mytemplate** template copying its permissions, send a request like this:

POST /ovirt-engine/api/vms?clone\_permissions=true

With a request body like this:

```
<vm>
  <name>myvm<name>
  <template>
    <name>mytemplate<name>
  </template>
  <cluster>
    <name>mycluster<name>
  </cluster>
</vm>
```

### 6.286.1.4. filter

Relevant for admin users only. Indicates whether to assign UserVmManager role on the created Virtual Machine for this user. This will enable the user to later access the Virtual Machine as though he were a non-admin user, foregoing his admin permissions (by providing filter=true).



#### NOTE

admin-as-user (meaning providing filter=true) POST requests on an existing Virtual Machine will fail unless the Virtual Machine has been previously created by the admin as a user (meaning with filter=true).

### 6.286.1.5. seal

Specifies if the virtual machine should be sealed after creation.

If this optional parameter is provided, and its value is **true**, the virtual machine will be sealed after creation. If the value is 'false', the virtual machine will not be sealed. If the parameter is not provided, the virtual machine will be sealed, only if it is created from a sealed template and its guest OS is not set to Windows.

For example, to create a virtual machine from the **mytemplate** template and to seal it, send a request like this:

```
POST /ovirt-engine/api/vms?seal=true
```

With a request body like this:

```
<vm>
  <name>myvm</name>
  <template>
    <name>mytemplate</name>
  </template>
  <cluster>
    <name>mycluster</name>
  </cluster>
</vm>
```

### 6.286.2. list GET

Returns the list of virtual machines of the system.

The order of the returned list of virtual machines is guaranteed only if the **sortby** clause is included in the **search** parameter.

Table 6.897. Parameters summary

Name	Type	Direction	Summary
<b>all_content</b>	Boolean	In	Indicates if all the attributes of the virtual machines should be included in the response.
<b>case_sensitive</b>	Boolean	In	Indicates if the search performed using the <b>search</b> parameter should be performed taking case into account.
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	The maximum number of results to return.

Name	Type	Direction	Summary
<b>ovf_as_ova</b>	Boolean	In	Indicates if the results should expose the OVF as it appears in OVA files of that VM.
<b>search</b>	String	In	A query string used to restrict the returned virtual machines.
<b>vms</b>	Vm[]	Out	

### 6.286.2.1. all\_content

Indicates if all the attributes of the virtual machines should be included in the response.

By default the following attributes are excluded:

- **console**
- **initialization.configuration.data** - The OVF document describing the virtual machine.
- **rng\_source**
- **soundcard**
- **virtio\_scsi**

For example, to retrieve the complete representation of the virtual machines send a request like this:

```
GET /ovirt-engine/api/vms?all_content=true
```



#### NOTE

The reason for not including these attributes is performance: they are seldom used and they require additional queries to the database. So try to use the this parameter only when it is really needed.

### 6.286.2.2. case\_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

### 6.286.2.3. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.286.2.4. ovf\_as\_ova

Indicates if the results should expose the OVF as it appears in OVA files of that VM. The OVF document describing the virtual machine. This parameter will work only when `all_content=True` is set. The OVF will be presented in **initialization.configuration.data**.

For example:

```
GET /vms?all_content=true&ovf_as_ova=true
```

## 6.287. VNICPROFILE

This service manages a vNIC profile.

**Table 6.898. Methods summary**

Name	Summary
<b>get</b>	Retrieves details about a vNIC profile.
<b>remove</b>	Removes the vNIC profile.
<b>update</b>	Updates details of a vNIC profile.

### 6.287.1. get GET

Retrieves details about a vNIC profile.

**Table 6.899. Parameters summary**

Name	Type	Direction	Summary
<b>follow</b>	<a href="#">String</a>	In	Indicates which inner links should be <i>followed</i> .
<b>profile</b>	<a href="#">VnicProfile</a>	Out	

#### 6.287.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.287.2. remove DELETE

Removes the vNIC profile.

**Table 6.900. Parameters summary**

Name	Type	Direction	Summary
<b>async</b>	<a href="#">Boolean</a>	In	Indicates if the remove should be performed asynchronously.

### 6.287.3. update PUT

Updates details of a vNIC profile.

Table 6.901. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the update should be performed asynchronously.
<b>profile</b>	VnicProfile	In/Out	The vNIC profile that is being updated.

## 6.288. VNICPROFILES

This service manages the collection of all vNIC profiles.

Table 6.902. Methods summary

Name	Summary
<b>add</b>	Add a vNIC profile.
<b>list</b>	List all vNIC profiles.

### 6.288.1. add POST

Add a vNIC profile.

For example to add vNIC profile **123** to network **456** send a request to:

```
POST /ovirt-engine/api/networks/456/vnicprofiles
```

With the following body:

```
<vnic_profile id="123">
  <name>new_vNIC_name</name>
  <pass_through>
    <mode>disabled</mode>
  </pass_through>
  <port_mirroring>false</port_mirroring>
</vnic_profile>
```

Please note that there is a default network filter to each vNIC profile. For more details of how the default network filter is calculated please refer to the documentation in [NetworkFilters](#).



#### NOTE

The automatically created vNIC profile for the external network will be without network filter.

The output of creating a new vNIC profile depends in the body arguments that were given. In case no network filter was given, the default network filter will be configured. For example:

```
<vnic_profile href="/ovirt-engine/api/vnicprofiles/123" id="123">
  <name>new_vNIC_name</name>
  <link href="/ovirt-engine/api/vnicprofiles/123/permissions" rel="permissions"/>
  <pass_through>
    <mode>disabled</mode>
  </pass_through>
  <port_mirroring>false</port_mirroring>
  <network href="/ovirt-engine/api/networks/456" id="456"/>
  <network_filter href="/ovirt-engine/api/networkfilters/789" id="789"/>
</vnic_profile>
```

In case an empty network filter was given, no network filter will be configured for the specific vNIC profile regardless of the vNIC profile's default network filter. For example:

```
<vnic_profile>
  <name>no_network_filter</name>
  <network_filter/>
</vnic_profile>
```

In case that a specific valid network filter id was given, the vNIC profile will be configured with the given network filter regardless of the vNIC profiles's default network filter. For example:

```
<vnic_profile>
  <name>user_choice_network_filter</name>
  <network_filter id= "0000001b-001b-001b-001b-0000000001d5"/>
</vnic_profile>
```

Table 6.903. Parameters summary

Name	Type	Direction	Summary
<b>profile</b>	VnicProfile	In/Out	The vNIC profile that is being added.

## 6.288.2. list GET

List all vNIC profiles.

The order of the returned list of vNIC profiles isn't guaranteed.

Table 6.904. Parameters summary

Name	Type	Direction	Summary
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of profiles to return.
<b>profiles</b>	VnicProfile[]	Out	The list of all vNIC profiles.

### 6.288.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.288.2.2. max

Sets the maximum number of profiles to return. If not specified all the profiles are returned.

## 6.289. WEIGHT

Table 6.905. Methods summary

Name	Summary
<b>get</b>	
<b>remove</b>	

### 6.289.1. get GET

Table 6.906. Parameters summary

Name	Type	Direction	Summary
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>weight</b>	Weight	Out	

#### 6.289.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

### 6.289.2. remove DELETE

Table 6.907. Parameters summary

Name	Type	Direction	Summary
<b>async</b>	Boolean	In	Indicates if the remove should be performed asynchronously.

## 6.290. WEIGHTS

Table 6.908. Methods summary

Name	Summary
<b>add</b>	Add a weight to a specified user defined scheduling policy.
<b>list</b>	Returns the list of weights.

### 6.290.1. add POST

Add a weight to a specified user defined scheduling policy.

Table 6.909. Parameters summary

Name	Type	Direction	Summary
<b>weight</b>	Weight	In/Out	

### 6.290.2. list GET

Returns the list of weights.

The order of the returned list of weights isn't guaranteed.

Table 6.910. Parameters summary

Name	Type	Direction	Summary
<b>filter</b>	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
<b>follow</b>	String	In	Indicates which inner links should be <i>followed</i> .
<b>max</b>	Integer	In	Sets the maximum number of weights to return.
<b>weights</b>	Weight[]	Out	

#### 6.290.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

#### 6.290.2.2. max

Sets the maximum number of weights to return. If not specified all the weights are returned.

## CHAPTER 7. TYPES

This section enumerates all the data types that are available in the API.

### 7.1. ACCESSPROTOCOL ENUM

Represents the access protocols supported by Gluster volumes. **gluster** and **nfs** are enabled by default.

Table 7.1. Values summary

Name	Summary
<b>cifs</b>	CIFS access protocol.
<b>gluster</b>	Gluster access protocol.
<b>nfs</b>	NFS access protocol.

### 7.2. ACTION STRUCT

Table 7.2. Attributes summary

Name	Type	Summary
<b>activate</b>	<a href="#">Boolean</a>	
<b>allow_partial_import</b>	<a href="#">Boolean</a>	
<b>async</b>	<a href="#">Boolean</a>	
<b>attachment</b>	<a href="#">DiskAttachment</a>	
<b>authorized_key</b>	<a href="#">AuthorizedKey</a>	
<b>auto_pinning_policy</b>	<a href="#">AutoPinningPolicy</a>	
<b>bricks</b>	<a href="#">GlusterBrick[]</a>	
<b>certificates</b>	<a href="#">Certificate[]</a>	
<b>check_connectivity</b>	<a href="#">Boolean</a>	
<b>clone</b>	<a href="#">Boolean</a>	

Name	Type	Summary
<b>clone_permissions</b>	Boolean	
<b>cluster</b>	Cluster	
<b>collapse_snapshots</b>	Boolean	
<b>comment</b>	String	Free text containing comments about this object.
<b>commit_on_success</b>	Boolean	
<b>connection</b>	StorageConnection	
<b>connectivity_timeout</b>	Integer	
<b>correlation_id</b>	String	
<b>data_center</b>	DataCenter	
<b>deploy_hosted_engine</b>	Boolean	
<b>description</b>	String	A human-readable description in plain text.
<b>details</b>	GlusterVolumeProfileDetails	
<b>directory</b>	String	
<b>discard_snapshots</b>	Boolean	
<b>discovered_targets</b>	IscsiDetails[]	
<b>disk</b>	Disk	
<b>disk_profile</b>	DiskProfile	
<b>disks</b>	Disk[]	
<b>exclusive</b>	Boolean	

Name	Type	Summary
<b>fault</b>	Fault	
<b>fence_type</b>	String	
<b>filename</b>	String	
<b>filter</b>	Boolean	
<b>fix_layout</b>	Boolean	
<b>follow</b>	String	
<b>force</b>	Boolean	
<b>grace_period</b>	GracePeriod	
<b>host</b>	Host	
<b>id</b>	String	A unique identifier.
<b>image</b>	String	
<b>image_transfer</b>	ImageTransfer	
<b>import_as_template</b>	Boolean	
<b>is_attached</b>	Boolean	
<b>iscsi</b>	IscsiDetails	
<b>iscsi_targets</b>	String[]	
<b>job</b>	Job	
<b>lease</b>	StorageDomainLease	
<b>logical_units</b>	LogicalUnit[]	
<b>maintenance_after_restart</b>	Boolean	
<b>maintenance_enabled</b>	Boolean	

Name	Type	Summary
<b>migrate_vms_in_affinity_closure</b>	Boolean	
<b>modified_bonds</b>	HostNic[]	
<b>modified_labels</b>	NetworkLabel[]	
<b>modified_network_attachments</b>	NetworkAttachment[]	
<b>name</b>	String	A human-readable name in plain text.
<b>optimize_cpu_settings</b>	Boolean	
<b>option</b>	Option	
<b>pause</b>	Boolean	
<b>permission</b>	Permission	
<b>power_management</b>	PowerManagement	
<b>proxy_ticket</b>	ProxyTicket	
<b>quota</b>	Quota	
<b>reason</b>	String	
<b>reassign_bad_macs</b>	Boolean	
<b>reboot</b>	Boolean	
<b>registration_configuration</b>	RegistrationConfiguration	
<b>remote_viewer_connection_file</b>	String	
<b>removed_bonds</b>	HostNic[]	
<b>removed_labels</b>	NetworkLabel[]	

Name	Type	Summary
<b>removed_network_attachments</b>	NetworkAttachment[]	
<b>resolution_type</b>	String	
<b>restore_memory</b>	Boolean	
<b>root_password</b>	String	
<b>seal</b>	Boolean	
<b>snapshot</b>	Snapshot	
<b>source_host</b>	Host	
<b>ssh</b>	Ssh	
<b>status</b>	String	
<b>stop_gluster_service</b>	Boolean	
<b>storage_domain</b>	StorageDomain	
<b>storage_domains</b>	StorageDomain[]	
<b>succeeded</b>	Boolean	
<b>synchronized_network_attachments</b>	NetworkAttachment[]	
<b>template</b>	Template	
<b>ticket</b>	Ticket	
<b>timeout</b>	Integer	
<b>undeploy_hosted_engine</b>	Boolean	
<b>upgrade_action</b>	ClusterUpgradeAction	

Name	Type	Summary
<b>upgrade_percent_complete</b>	Integer	
<b>use_cloud_init</b>	Boolean	
<b>use_ignition</b>	Boolean	
<b>use_initialization</b>	Boolean	
<b>use_sysprep</b>	Boolean	
<b>virtual_functions_configuration</b>	HostNicVirtualFunctionsConfiguration	
<b>vm</b>	Vm	
<b>vnic_profile_mappings</b>	VnicProfileMapping[]	
<b>volatile</b>	Boolean	

### 7.3. AFFINITYGROUP STRUCT

An affinity group represents a group of virtual machines with a defined relationship.

Table 7.3. Attributes summary

Name	Type	Summary
<b>broken</b>	Boolean	Specifies if the affinity group is broken.
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>enforcing</b>	Boolean	Specifies whether the affinity group uses hard or soft enforcement of the affinity applied to virtual machines that are members of that affinity group.
<b>hosts_rule</b>	AffinityRule	Specifies the affinity rule applied between virtual machines and hosts that are members of this affinity group.

Name	Type	Summary
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.
<b>positive</b>	Boolean	Specifies whether the affinity group applies positive affinity or negative affinity to virtual machines that are members of that affinity group.
<b>priority</b>	Decimal	Priority of the affinity group.
<b>vms_rule</b>	AffinityRule	Specifies the affinity rule applied to virtual machines that are members of this affinity group.

### 7.3.1. broken

Specifies if the affinity group is broken. Affinity group is considered broken when any of its rules are not satisfied. Broken field is a computed field in the engine. Because of that, this field is only usable in GET requests.

### 7.3.2. enforcing

Specifies whether the affinity group uses hard or soft enforcement of the affinity applied to virtual machines that are members of that affinity group.



#### WARNING

Please note that this attribute has been deprecated since version 4.1 of the engine, and will be removed in the future. Use the **vms\_rule** attribute from now on.

### 7.3.3. positive

Specifies whether the affinity group applies positive affinity or negative affinity to virtual machines that are members of that affinity group.



#### WARNING

Please note that this attribute has been deprecated since version 4.1 of the engine, and will be removed in the future. Use the **vms\_rule** attribute from now on.

Table 7.4. Links summary

Name	Type	Summary
<b>cluster</b>	<a href="#">Cluster</a>	A reference to the cluster to which the affinity group applies.
<b>host_labels</b>	<a href="#">AffinityLabel[]</a>	A list of all host labels assigned to this affinity group.
<b>hosts</b>	<a href="#">Host[]</a>	A list of all hosts assigned to this affinity group.
<b>vm_labels</b>	<a href="#">AffinityLabel[]</a>	A list of all virtual machine labels assigned to this affinity group.
<b>vms</b>	<a href="#">Vm[]</a>	A list of all virtual machines assigned to this affinity group.

## 7.4. AFFINITYLABEL STRUCT

The affinity label can influence virtual machine scheduling. It is most frequently used to create a sub-cluster from the available hosts.

Table 7.5. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>has_implicit_affinity_group</b>	<a href="#">Boolean</a>	This property enables the legacy behavior for labels.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>read_only</b>	<a href="#">Boolean</a>	The <b>read_only</b> property marks a label that can not be modified.

### 7.4.1. has\_implicit\_affinity\_group

This property enables the legacy behavior for labels. If **true**, the label acts also as a positive enforcing VM-to-host affinity group.

This parameter is only used for clusters with compatibility version 4.3 or lower.

### 7.4.2. read\_only

The **read\_only** property marks a label that can not be modified. This is usually the case when listing internally-generated labels.

Table 7.6. Links summary

Name	Type	Summary
<b>hosts</b>	Host[]	A list of hosts that were labeled using this scheduling label.
<b>vms</b>	Vm[]	A list of virtual machines that were labeled using this scheduling label.

## 7.5. AFFINITYRULE STRUCT

Generic rule definition for affinity group. Each supported resource type (virtual machine, host) is controlled by a separate rule. This allows expressing of rules like: no affinity between defined virtual machines, but hard affinity between defined virtual machines and virtual hosts.

Table 7.7. Attributes summary

Name	Type	Summary
<b>enabled</b>	Boolean	Specifies whether the affinity group uses this rule or not.
<b>enforcing</b>	Boolean	Specifies whether the affinity group uses hard or soft enforcement of the affinity applied to the resources that are controlled by this rule.
<b>positive</b>	Boolean	Specifies whether the affinity group applies positive affinity or negative affinity to the resources that are controlled by this rule.

### 7.5.1. enabled

Specifies whether the affinity group uses this rule or not. This attribute is optional during creation and is considered to be **true** when it is not provided. In case this attribute is not provided to the update operation, it is considered to be **true** if AffinityGroup **positive** attribute is set as well. The backend **enabled** value will be preserved when both **enabled** and **positive** attributes are missing.

### 7.5.2. enforcing

Specifies whether the affinity group uses hard or soft enforcement of the affinity applied to the resources that are controlled by this rule. This argument is mandatory if the rule is enabled and is ignored when the rule is disabled.

### 7.5.3. positive

Specifies whether the affinity group applies positive affinity or negative affinity to the resources that are controlled by this rule. This argument is mandatory if the rule is enabled and is ignored when the rule is disabled.

## 7.6. AGENT STRUCT

Type representing a fence agent.

Table 7.8. Attributes summary

Name	Type	Summary
<b>address</b>	String	Fence agent address.
<b>comment</b>	String	Free text containing comments about this object.
<b>concurrent</b>	Boolean	Specifies whether the agent should be used concurrently or sequentially.
<b>description</b>	String	A human-readable description in plain text.
<b>encrypt_options</b>	Boolean	Specifies whether the options should be encrypted.
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.
<b>options</b>	Option[]	Fence agent options (comma-delimited list of key-value pairs).
<b>order</b>	Integer	The order of this agent if used with other agents.
<b>password</b>	String	Fence agent password.
<b>port</b>	Integer	Fence agent port.
<b>type</b>	String	Fence agent type.
<b>username</b>	String	Fence agent user name.

Table 7.9. Links summary

Name	Type	Summary
<b>host</b>	Host	Reference to the host service.

### 7.6.1. host

Reference to the host service. Each fence agent belongs to a single host.

## 7.7. AGENTCONFIGURATION STRUCT

Deprecated Agent configuration settings.

Ignored, because the deployment of OpenStack Neutron agent is dropped since Red Hat Virtualization 4.4.0. The deployment of OpenStack hosts can be done by Red Hat OpenStack Platform Director or TripleO.

Table 7.10. Attributes summary

Name	Type	Summary
<b>address</b>	String	
<b>broker_type</b>	MessageBrokerType	
<b>network_mappings</b>	String	Not recommended to use, because the Open vSwitch interface mappings are managed by VDSM since Red Hat Virtualization 4.
<b>password</b>	String	
<b>port</b>	Integer	
<b>username</b>	String	

### 7.7.1. network\_mappings

Not recommended to use, because the Open vSwitch interface mappings are managed by VDSM since Red Hat Virtualization 4.2.0.

## 7.8. API STRUCT

This type contains the information returned by the root service of the API.

To get that information send a request like this:

```
GET /ovirt-engine/api
```

The result will be like this:

```
<api>
  <link rel="hosts" href="/ovirt-engine/api/hosts"/>
  <link rel="vms" href="/ovirt-engine/api/vms"/>
  ...
  <product_info>
    <name>oVirt Engine</name>
    <vendor>ovirt.org</vendor>
    <version>
      <build>0</build>
      <full_version>4.1.0_master</full_version>
      <major>4</major>
      <minor>1</minor>
      <revision>0</revision>
    </version>
  </product_info>
  <special_objects>
    <link rel="templates/blank" href="..."/>
    <link rel="tags/root" href="..."/>
  </special_objects>
  <summary>
```

```

<vms>
  <total>10</total>
  <active>3</active>
</vms>
<hosts>
  <total>2</total>
  <active>2</active>
</hosts>
<users>
  <total>8</total>
  <active>2</active>
</users>
<storage_domains>
  <total>2</total>
  <active>2</active>
</storage_domains>
</summary>
<time>2016-12-12T12:22:25.866+01:00</time>
</api>

```

Table 7.11. Attributes summary

Name	Type	Summary
<b>product_info</b>	<a href="#">ProductInfo</a>	Information about the product, such as its name, the name of the vendor, and the version.
<b>special_objects</b>	<a href="#">SpecialObjects</a>	References to special objects, such as the blank template and the root of the hierarchy of tags.
<b>summary</b>	<a href="#">ApiSummary</a>	A summary containing the total number of relevant objects, such as virtual machines, hosts, and storage domains.
<b>time</b>	<a href="#">Date</a>	The date and time when this information was generated.

Table 7.12. Links summary

Name	Type	Summary
<b>authenticated_user</b>	<a href="#">User</a>	Reference to the authenticated user.
<b>effective_user</b>	<a href="#">User</a>	Reference to the effective user.

### 7.8.1. authenticated\_user

Reference to the authenticated user.

The authenticated user is the user whose credentials were verified in order to accept the current request. In the current version of the system the authenticated user and the effective user are always the same. In the future, when support for user impersonation is introduced, they will be potentially

different.

### 7.8.2. effective\_user

Reference to the effective user.

The effective user is the user whose permissions apply during the current request. In the current version of the system the authenticated user and the effective user are always the same. In the future, when support for user impersonation is introduced, they will be potentially different.

## 7.9. APISUMMARY STRUCT

A summary containing the total number of relevant objects, such as virtual machines, hosts, and storage domains.

Table 7.13. Attributes summary

Name	Type	Summary
<b>hosts</b>	<a href="#">ApiSummaryItem</a>	The summary of hosts.
<b>storage_domains</b>	<a href="#">ApiSummaryItem</a>	The summary of storage domains.
<b>users</b>	<a href="#">ApiSummaryItem</a>	The summary of users.
<b>vms</b>	<a href="#">ApiSummaryItem</a>	The summary of virtual machines.

## 7.10. APISUMMARYITEM STRUCT

This type contains an item of the API summary. Each item contains the total and active number of some kind of object.

Table 7.14. Attributes summary

Name	Type	Summary
<b>active</b>	<a href="#">Integer</a>	The total number of active objects.
<b>total</b>	<a href="#">Integer</a>	The total number of objects.

## 7.11. APPLICATION STRUCT

Represents an application installed on a virtual machine. Applications are reported by the guest agent, if you deploy one on the virtual machine operating system.

To get that information send a request like this:

```
GET /ovirt-engine/api/vms/123/applications/456
```

The result will be like this:

```
<application href="/ovirt-engine/api/vms/123/applications/456" id="456">
  <name>application-test-1.0.0-0.el7</name>
  <vm href="/ovirt-engine/api/vms/123" id="123"/>
</application>
```

Table 7.15. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.

Table 7.16. Links summary

Name	Type	Summary
<b>vm</b>	Vm	A reference to the virtual machine the application is installed on.

## 7.12. ARCHITECTURE ENUM

Table 7.17. Values summary

Name	Summary
<b>aarch64</b>	AARCH64 CPU architecture.
<b>ppc64</b>	
<b>s390x</b>	IBM S390X CPU architecture.
<b>undefined</b>	
<b>x86_64</b>	

### 7.12.1. s390x

IBM S390X CPU architecture.

Needs to be specified for virtual machines and clusters running on the S390X architecture.

Note that S390 is often used in an ambiguous way to describe either the general machine architecture as such or its 31-bit variant. S390X is used specifically for the 64-bit architecture, which is in line with the other architectures, like X86\_64 or PPC64.

## 7.13. AUTHORIZEDKEY STRUCT

Table 7.18. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>key</b>	String	
<b>name</b>	String	A human-readable name in plain text.

Table 7.19. Links summary

Name	Type	Summary
<b>user</b>	User	

## 7.14. AUTONUMASTATUS ENUM

Table 7.20. Values summary

Name	Summary
<b>disable</b>	
<b>enable</b>	
<b>unknown</b>	

## 7.15. AUTOPINNINGPOLICY ENUM

Type representing what the CPU and NUMA pinning policy is.



### IMPORTANT

Since version 4.5 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. Instead please use `CpuPinningPolicy`.

Table 7.21. Values summary

Name	Summary
<b>adjust</b>	The CPU and NUMA pinning will be configured by the dedicated host.
<b>disabled</b>	The CPU and NUMA pinning won't be calculated.
<b>existing</b>	The CPU and NUMA pinning will be configured by the virtual machine current state.

### 7.15.1. adjust

The CPU and NUMA pinning will be configured by the dedicated host.

Currently, its implication is that the CPU and NUMA pinning will use the dedicated host CPU topology. The virtual machine configuration will automatically be set to fit the host to get the highest possible performance.

### 7.15.2. disabled

The CPU and NUMA pinning won't be calculated.

Currently, its implication is that the CPU and NUMA pinning won't be calculated to the current virtual machine configuration. By default the VM topology set with 1 Socket, 1 Core and 1 Thread.

### 7.15.3. existing

The CPU and NUMA pinning will be configured by the virtual machine current state.

Currently, its implication is that the CPU and NUMA pinning will use the provided virtual machine CPU topology. Without given CPU topology it will use the engine defaults (the VM topology set with 1 Socket, 1 Core and 1 Thread).

## 7.16. BACKUP STRUCT

Table 7.22. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>creation_date</b>	Date	The backup creation date.
<b>description</b>	String	A human-readable description in plain text.
<b>from_checkpoint_id</b>	String	The checkpoint id at which to start the incremental backup.
<b>id</b>	String	A unique identifier.

Name	Type	Summary
<b>modification_date</b>	<a href="#">Date</a>	The backup modification date.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>phase</b>	<a href="#">BackupPhase</a>	The phase of the backup operation.
<b>to_checkpoint_id</b>	<a href="#">String</a>	The checkpoint id created by this backup operation.

### 7.16.1. to\_checkpoint\_id

The checkpoint id created by this backup operation. This id can be used as the **fromCheckpointId** in the next incremental backup.

Table 7.23. Links summary

Name	Type	Summary
<b>disks</b>	<a href="#">Disk[]</a>	A list of disks contained in the virtual machine backup.
<b>host</b>	<a href="#">Host</a>	The host that was used to start the backup.
<b>snapshot</b>	<a href="#">Snapshot</a>	A reference to the snapshot created if the backup is using a snapshot.
<b>vm</b>	<a href="#">Vm</a>	A reference to the virtual machine associated with the backup.

## 7.17. BACKUPPHASE ENUM

Table 7.24. Values summary

Name	Summary
<b>failed</b>	The final phase, indicates that the backup has failed.
<b>finalizing</b>	In this phase, the backup is invoking 'stop_backup' operation in order to complete the backup and unlock the relevant disk.
<b>initializing</b>	The initial phase of the backup.
<b>ready</b>	The phase means that the relevant disks' backup URLs are ready to be used and downloaded using image transfer.

Name	Summary
<b>starting</b>	The phase is set before invoking 'start_backup' operation in vdsm/libvirt (which means that 'stop_backup' should be invoked to complete the flow).
<b>succeeded</b>	The final phase, indicates that the backup has finished successfully.

### 7.17.1. initializing

The initial phase of the backup. It is set on entity creation.

## 7.18. BALANCE STRUCT

Table 7.25. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.

Table 7.26. Links summary

Name	Type	Summary
<b>scheduling_policy</b>	<a href="#">SchedulingPolicy</a>	
<b>scheduling_policy_unit</b>	<a href="#">SchedulingPolicyUnit</a>	

## 7.19. BIOS STRUCT

Table 7.27. Attributes summary

Name	Type	Summary
<b>boot_menu</b>	<a href="#">BootMenu</a>	
<b>type</b>	<a href="#">BiosType</a>	Chipset and BIOS type combination.

## 7.20. BIOSTYPE ENUM

Type representing a chipset and a BIOS type combination.

Table 7.28. Values summary

Name	Summary
<b>cluster_default</b>	Use the cluster-wide default.
<b>i440fx_sea_bios</b>	i440fx chipset with SeaBIOS.
<b>q35_ovmf</b>	q35 chipset with OVMF (UEFI) BIOS.
<b>q35_sea_bios</b>	q35 chipset with SeaBIOS.
<b>q35_secure_boot</b>	q35 chipset with OVMF (UEFI) BIOS with SecureBoot enabled.

### 7.20.1. cluster\_default

Use the cluster-wide default.

This value cannot be used for cluster.

### 7.20.2. i440fx\_sea\_bios

i440fx chipset with SeaBIOS.

For non-x86 architectures this is the only non-default value allowed.

## 7.21. BLOCKSTATISTIC STRUCT

Table 7.29. Attributes summary

Name	Type	Summary
<b>statistics</b>	<a href="#">Statistic[]</a>	

## 7.22. BONDING STRUCT

Represents a network interfaces bond.

Table 7.30. Attributes summary

Name	Type	Summary
<b>ad_partner_mac</b>	<a href="#">Mac</a>	The <b>ad_partner_mac</b> property of the partner bond in mode 4.

Name	Type	Summary
<b>options</b>	<a href="#">Option[]</a>	A list of option elements for a bonded interface.
<b>slaves</b>	<a href="#">HostNic[]</a>	A list of slave NICs for a bonded interface.

### 7.22.1. ad\_partner\_mac

The **ad\_partner\_mac** property of the partner bond in mode 4. Bond mode 4 is the 802.3ad standard, which is also called dynamic link aggregation. See [Wikipedia](#) and [Presentation](#) for more information. **ad\_partner\_mac** is the MAC address of the system (switch) at the other end of a bond. This parameter is read-only. Setting it will have no effect on the bond. It is retrieved from `/sys/class/net/bondX/bonding/ad_partner_mac` file on the system where the bond is located.

### 7.22.2. options

A list of option elements for a bonded interface. Each option contains property name and value attributes. Only required when adding bonded interfaces.

### 7.22.3. slaves

A list of slave NICs for a bonded interface. Only required when adding bonded interfaces.

Table 7.31. Links summary

Name	Type	Summary
<b>active_slave</b>	<a href="#">HostNic</a>	The <b>active_slave</b> property of the bond in modes that support it (active-backup, balance-alb and balance-tlb).

### 7.22.4. active\_slave

The **active\_slave** property of the bond in modes that support it (active-backup, balance-alb and balance-tlb). See [Linux documentation](#) for further details. This parameter is read-only. Setting it will have no effect on the bond. It is retrieved from `/sys/class/net/bondX/bonding/active_slave` file on the system where the bond is located.

For example:

```
GET /ovirt-engine/api/hosts/123/nics/321
```

Will respond:

```
<host_nic href="/ovirt-engine/api/hosts/123/nics/321" id="321">
...
<bonding>
  <slaves>
    <host_nic href="/ovirt-engine/api/hosts/123/nics/456" id="456" />
    ...
  </slaves>
  <active_slave href="/ovirt-engine/api/hosts/123/nics/456" id="456" />
```

```

</bonding>
...
</host_nic>

```

## 7.23. BOOKMARK STRUCT

Represents a bookmark in the system.

Table 7.32. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.
<b>value</b>	String	The bookmark value, representing a search in the engine.

## 7.24. BOOT STRUCT

Configuration of the boot sequence of a virtual machine.

Table 7.33. Attributes summary

Name	Type	Summary
<b>devices</b>	BootDevice[]	Ordered list of boot devices.

### 7.24.1. devices

Ordered list of boot devices. The virtual machine will try to boot from the given boot devices, in the given order.

## 7.25. BOOTDEVICE ENUM

Represents the kinds of devices that a virtual machine can boot from.

Table 7.34. Values summary

Name	Summary
<b>cdrom</b>	Boot from CD-ROM.
<b>hd</b>	Boot from the hard drive.

Name	Summary
<b>network</b>	Boot from the network, using PXE.

### 7.25.1. cdrom

Boot from CD-ROM. The CD-ROM can be chosen from the list of ISO files available in an ISO domain attached to the ata center that the virtual machine belongs to.

### 7.25.2. network

Boot from the network, using PXE. It is necessary to have [PXE](#) configured on the network that the virtual machine is connected to.

## 7.26. BOOTMENU STRUCT

Represents boot menu configuration for virtual machines and templates.

Table 7.35. Attributes summary

Name	Type	Summary
<b>enabled</b>	<a href="#">Boolean</a>	Whether the boot menu is enabled for this virtual machine (or template), or not.

## 7.27. BOOTPROTOCOL ENUM

Defines the options of the IP address assignment method to a NIC.

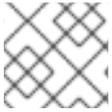
Table 7.36. Values summary

Name	Summary
<b>autoconf</b>	Stateless address auto-configuration.
<b>dhcp</b>	Dynamic host configuration protocol.
<b>none</b>	No address configuration.
<b>poly_dhcp_autoconf</b>	DHCP alongside Stateless address auto-configuration (SLAAC).
<b>static</b>	Statically-defined address, mask and gateway.

### 7.27.1. autoconf

Stateless address auto-configuration.

The mechanism is defined by [RFC 4862](#). Please refer to [this wikipedia article](#) for more information.



#### NOTE

The value is valid for IPv6 addresses only.

### 7.27.2. dhcp

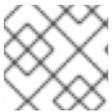
Dynamic host configuration protocol.

Please refer to [this wikipedia article](#) for more information.

### 7.27.3. poly\_dhcp\_autoconf

DHCP alongside Stateless address auto-configuration (SLAAC).

The SLAAC mechanism is defined by [RFC 4862](#). Please refer to the [Stateless address auto-configuration](#) article and the [DHCP](#) article for more information.



#### NOTE

The value is valid for IPv6 addresses only.

## 7.28. BRICKPROFILEDETAIL STRUCT

Table 7.37. Attributes summary

Name	Type	Summary
<b>profile_details</b>	<a href="#">ProfileDetail[]</a>	

Table 7.38. Links summary

Name	Type	Summary
<b>brick</b>	<a href="#">GlusterBrick</a>	

## 7.29. CDROM STRUCT

Table 7.39. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>file</b>	<a href="#">File</a>	

Name	Type	Summary
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.

Table 7.40. Links summary

Name	Type	Summary
<b>instance_type</b>	<a href="#">InstanceType</a>	Optionally references to an instance type the device is used by.
<b>template</b>	<a href="#">Template</a>	Optionally references to a template the device is used by.
<b>vm</b>	<a href="#">Vm</a>	Do not use this element, use <b>vms</b> instead.
<b>vms</b>	<a href="#">Vm[]</a>	References to the virtual machines that are using this device.

### 7.29.1. vms

References to the virtual machines that are using this device. A device may be used by several virtual machines; for example, a shared disk may be used simultaneously by two or more virtual machines.

## 7.30. CERTIFICATE STRUCT

Table 7.41. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>content</b>	<a href="#">String</a>	
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>organization</b>	<a href="#">String</a>	
<b>subject</b>	<a href="#">String</a>	

## 7.31. CHECKPOINT STRUCT

Table 7.42. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>creation_date</b>	Date	The checkpoint creation date.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.
<b>parent_id</b>	String	The parent checkpoint id.
<b>state</b>	CheckpointState	The state of the checkpoint.

Table 7.43. Links summary

Name	Type	Summary
<b>disks</b>	Disk[]	A list of disks contained in the backup checkpoint.
<b>vm</b>	Vm	A reference to the virtual machine associated with the checkpoint.

## 7.32. CHECKPOINTSTATE ENUM

Table 7.44. Values summary

Name	Summary
<b>created</b>	The initial state of the checkpoint.
<b>invalid</b>	The INVALID state set when a checkpoint cannot be used anymore for incremental backup and should be removed (For example, after committing to an older VM snapshot).

### 7.32.1. created

The initial state of the checkpoint. It is set on entity creation.

## 7.33. CLOUDINIT STRUCT

Deprecated type to specify *cloud-init* configuration.

This type has been deprecated and replaced by alternative attributes inside the [Initialization](#) type. See the [cloud\\_init](#) attribute documentation for details.

Table 7.45. Attributes summary

Name	Type	Summary
<b>authorized_keys</b>	<a href="#">AuthorizedKey[]</a>	
<b>files</b>	<a href="#">File[]</a>	
<b>host</b>	<a href="#">Host</a>	
<b>network_configuration</b>	<a href="#">NetworkConfiguration</a>	
<b>regenerate_ssh_keys</b>	<a href="#">Boolean</a>	
<b>timezone</b>	<a href="#">String</a>	
<b>users</b>	<a href="#">User[]</a>	

## 7.34. CLOUDINITNETWORKPROTOCOL ENUM

Defines the values for the cloud-init protocol. This protocol decides how the cloud-init network parameters are formatted before being passed to the virtual machine in order to be processed by cloud-init.

Protocols supported are cloud-init version dependent. For more information, see [Network Configuration Sources](#)

Table 7.46. Values summary

Name	Summary
<b>eni</b>	Legacy protocol.
<b>openstack_metadata</b>	Successor of the ENI protocol, with support for IPv6 and more.

### 7.34.1. eni

Legacy protocol. Does not support IPv6. For more information, see [Network Configuration ENI \(Legacy\)](#)

### 7.34.2. openstack\_metadata

Successor of the ENI protocol, with support for IPv6 and more. This is the default value. For more information, see [API: Proxy neutron configuration to guest instance](#)

## 7.35. CLUSTER STRUCT

Type representation of a cluster.

A JSON representation of a cluster:

```
{
  "cluster": [ {
    "ballooning_enabled": "false",
    "cpu": {
      "architecture": "x86_64",
      "type": "Intel SandyBridge Family"
    },
    "custom_scheduling_policy_properties": {
      "property": [ {
        "name": "HighUtilization",
        "value": "80"
      }, {
        "name": "CpuOverCommitDurationMinutes",
        "value": "2"
      } ]
    },
    "error_handling": {
      "on_error": "migrate"
    },
    "fencing_policy": {
      "enabled": "true",
      "skip_if_connectivity_broken": {
        "enabled": "false",
        "threshold": "50"
      },
      "skip_if_gluster_bricks_up": "false",
      "skip_if_gluster_quorum_not_met": "false",
      "skip_if_sd_active": {
        "enabled": "false"
      }
    },
    "gluster_service": "false",
    "firewall_type": "iptables",
    "ha_reservation": "false",
    "ksm": {
      "enabled": "true",
      "merge_across_nodes": "true"
    },
    "memory_policy": {
      "over_commit": {
        "percent": "100"
      },
      "transparent_hugepages": {
        "enabled": "true"
      }
    },
    "migration": {
```

```

"auto_converge" : "inherit",
"bandwidth" : {
  "assignment_method" : "auto"
},
"compressed" : "inherit",
"policy" : {
  "id" : "00000000-0000-0000-0000-000000000000"
}
},
"required_rng_sources" : {
  "required_rng_source" : [ "random" ]
},
"switch_type" : "legacy",
"threads_as_cores" : "false",
"trusted_service" : "false",
"tunnel_migration" : "false",
"version" : {
  "major" : "4",
  "minor" : "1"
},
"virt_service" : "true",
"data_center" : {
  "href" : "/ovirt-engine/api/datacenters/123",
  "id" : "123"
},
"mac_pool" : {
  "href" : "/ovirt-engine/api/macpools/456",
  "id" : "456"
},
"scheduling_policy" : {
  "href" : "/ovirt-engine/api/schedulingpolicies/789",
  "id" : "789"
},
"actions" : {
  "link" : [ {
    "href" : "/ovirt-engine/api/clusters/234/resetemulatedmachine",
    "rel" : "resetemulatedmachine"
  } ]
},
"name" : "Default",
"description" : "The default server cluster",
"href" : "/ovirt-engine/api/clusters/234",
"id" : "234",
"link" : [ {
  "href" : "/ovirt-engine/api/clusters/234/permissions",
  "rel" : "permissions"
}, {
  "href" : "/ovirt-engine/api/clusters/234/cpuprofiles",
  "rel" : "cpuprofiles"
}, {
  "href" : "/ovirt-engine/api/clusters/234/networkfilters",
  "rel" : "networkfilters"
}, {
  "href" : "/ovirt-engine/api/clusters/234/networks",
  "rel" : "networks"
}, {

```

```

    "href" : "/ovirt-engine/api/clusters/234/affinitygroups",
    "rel" : "affinitygroups"
  }, {
    "href" : "/ovirt-engine/api/clusters/234/glusterhooks",
    "rel" : "glusterhooks"
  }, {
    "href" : "/ovirt-engine/api/clusters/234/glustervolumes",
    "rel" : "glustervolumes"
  }, {
    "href" : "/ovirt-engine/api/clusters/234/enabledfeatures",
    "rel" : "enabledfeatures"
  }, {
    "href" : "/ovirt-engine/api/clusters/234/externalnetworkproviders",
    "rel" : "externalnetworkproviders"
  }
}
}
}
}
}

```

Table 7.47. Attributes summary

Name	Type	Summary
<b>ballooning_enabled</b>	Boolean	
<b>bios_type</b>	BiosType	Chipset and BIOS type combination.
<b>comment</b>	String	Free text containing comments about this object.
<b>cpu</b>	Cpu	
<b>custom_scheduling_policy_properties</b>	Property[]	Custom scheduling policy properties of the cluster.
<b>description</b>	String	A human-readable description in plain text.
<b>display</b>	Display	
<b>error_handling</b>	ErrorHandling	
<b>fencing_policy</b>	FencingPolicy	A custom fencing policy can be defined for a cluster.
<b>fips_mode</b>	FipsMode	FIPS mode of the cluster.
<b>firewall_type</b>	FirewallType	The type of firewall to be used on hosts in this cluster.
<b>gluster_service</b>	Boolean	
<b>gluster_tuned_profile</b>	String	The name of the tuned profile.

Name	Type	Summary
<b>ha_reservation</b>	Boolean	
<b>id</b>	String	A unique identifier.
<b>ksm</b>	Ksm	
<b>log_max_memory_used_threshold</b>	Integer	The memory consumption threshold for logging audit log events.
<b>log_max_memory_used_threshold_type</b>	LogMaxMemoryUsedThresholdType	The memory consumption threshold type for logging audit log events.
<b>maintenance_reason_required</b>	Boolean	This property has no longer any relevance and has been deprecated.
<b>memory_policy</b>	MemoryPolicy	
<b>migration</b>	MigrationOptions	Reference to cluster-wide configuration of migration of a running virtual machine to another host.
<b>name</b>	String	A human-readable name in plain text.
<b>optional_reason</b>	Boolean	This property has no longer any relevance and has been deprecated.
<b>required_rng_sources</b>	RngSource[]	Set of random number generator (RNG) sources required from each host in the cluster.
<b>serial_number</b>	SerialNumber	
<b>supported_versions</b>	Version[]	
<b>switch_type</b>	SwitchType	The type of switch to be used by all networks in given cluster.
<b>threads_as_cores</b>	Boolean	
<b>trusted_service</b>	Boolean	

Name	Type	Summary
<b>tunnel_migration</b>	Boolean	
<b>upgrade_correlation_id</b>	String	The upgrade correlation identifier.
<b>upgrade_in_progress</b>	Boolean	Indicates if an upgrade has been started for the cluster.
<b>upgrade_percent_complete</b>	Integer	If an upgrade is in progress, the upgrade's reported percent complete.
<b>version</b>	Version	The compatibility version of the cluster.
<b>virt_service</b>	Boolean	
<b>vnc_encryption</b>	Boolean	Enable VNC encryption.

### 7.35.1. bios\_type

Chipset and BIOS type combination.

This value is used as default for all virtual machines in the cluster having **biosType** set to **CLUSTER\_DEFAULT**.

### 7.35.2. custom\_scheduling\_policy\_properties

Custom scheduling policy properties of the cluster. These optional properties override the properties of the scheduling policy specified by the **scheduling\_policy** link, and apply only for this specific cluster.

For example, to update the custom properties of the cluster, send a request:

```
PUT /ovirt-engine/api/clusters/123
```

With a request body:

```
<cluster>
  <custom_scheduling_policy_properties>
    <property>
      <name>HighUtilization</name>
      <value>70</value>
    </property>
  </custom_scheduling_policy_properties>
</cluster>
```

Update operations using the **custom\_scheduling\_policy\_properties** attribute will not update the the properties of the scheduling policy specified by the **scheduling\_policy** link, they will only be reflected on this specific cluster.

### 7.35.3. fencing\_policy

A custom fencing policy can be defined for a cluster.

For example:

```
PUT /ovirt-engine/api/cluster/123
```

With request body like this:

```
<cluster>
  <fencing_policy>
    <enabled>true</enabled>
    <skip_if_sd_active>
      <enabled>>false</enabled>
    </skip_if_sd_active>
    <skip_if_connectivity_broken>
      <enabled>>false</enabled>
      <threshold>50</threshold>
    </skip_if_connectivity_broken>
  </fencing_policy>
</cluster>
```

### 7.35.4. fips\_mode

FIPS mode of the cluster.

**FIPS** mode represents the cluster's policy towards hosts. Hosts added to the cluster will be checked to fulfill the cluster's FIPS mode, making them non-operational if they do not. Unless a value is explicitly provided, new clusters are initialized by default to **UNDEFINED**. This value changes automatically to the FIPS mode of the first host added to the cluster.

### 7.35.5. gluster\_tuned\_profile

The name of the tuned profile.

**Tuned** profile to set on all the hosts in the cluster. This is not mandatory and relevant only for clusters with Gluster service.

### 7.35.6. log\_max\_memory\_used\_threshold

The memory consumption threshold for logging audit log events.

For percentage, an audit log event is logged if the used memory is more than the value specified. For absolute value, an audit log event is logged when the free memory falls below the value specified in MB.

### 7.35.7. log\_max\_memory\_used\_threshold\_type

The memory consumption threshold type for logging audit log events.

You can choose between 'percentage' and 'absolute\_value\_in\_mb'.

### 7.35.8. maintenance\_reason\_required

This property has no longer any relevance and has been deprecated. Its default value is true,

### 7.35.9. migration

Reference to cluster-wide configuration of migration of a running virtual machine to another host.



#### NOTE

API for querying migration policy by ID returned by this method is not implemented yet. Use `/ovirt-engine/api/options/MigrationPolicies` to get a list of all migration policies with their IDs.

### 7.35.10. optional\_reason

This property has no longer any relevance and has been deprecated. Its default value is true.

### 7.35.11. required\_rng\_sources

Set of random number generator (RNG) sources required from each host in the cluster.

When read, it returns the implicit **urandom** (for cluster version 4.1 and higher) or **random** (for cluster version 4.0 and lower) plus additional selected RNG sources. When written, the implicit **urandom** and **random** RNG sources cannot be removed.



#### IMPORTANT

Before version 4.1 of the engine, the set of required random number generators was completely controllable by the administrator; any source could be added or removed, including the **random** source. But starting with version 4.1, the **urandom** and **random** sources will always be part of the set, and can't be removed.



#### IMPORTANT

Engine version 4.1 introduces a new RNG source **urandom** that replaces **random** RNG source in clusters with compatibility version 4.1 or higher.

### 7.35.12. upgrade\_correlation\_id

The upgrade correlation identifier. Use to correlate events detailing the cluster upgrade to the upgrade itself.

### 7.35.13. version

The compatibility version of the cluster.

All hosts in this cluster must support at least this compatibility version.

For example:

```
GET /ovirt-engine/api/clusters/123
```

Will respond with:

```
<cluster>
...
<version>
  <major>4</major>
  <minor>0</minor>
</version>
...
</cluster>
```

To update the compatibility version, use:

```
PUT /ovirt-engine/api/clusters/123
```

With a request body like this:

```
<cluster>
  <version>
    <major>4</major>
    <minor>1</minor>
  </version>
</cluster>
```

In order to update the cluster compatibility version, all hosts in the cluster must support the new compatibility version.

### 7.35.14. vnc\_encryption

Enable VNC encryption. Default value for this property is false.

Table 7.48. Links summary

Name	Type	Summary
<b>affinity_groups</b>	<a href="#">AffinityGroup[]</a>	
<b>cpu_profiles</b>	<a href="#">CpuProfile[]</a>	
<b>data_center</b>	<a href="#">DataCenter</a>	
<b>enabled_features</b>	<a href="#">ClusterFeature[]</a>	Custom features that are enabled for the cluster.
<b>external_network_providers</b>	<a href="#">ExternalProvider[]</a>	A reference to the external network provider available in the cluster.
<b>gluster_hooks</b>	<a href="#">GlusterHook[]</a>	

Name	Type	Summary
<b>gluster_volumes</b>	<a href="#">GlusterVolume[]</a>	
<b>mac_pool</b>	<a href="#">MacPool</a>	A reference to the MAC pool used by this cluster.
<b>management_network</b>	<a href="#">Network</a>	
<b>network_filters</b>	<a href="#">NetworkFilter[]</a>	
<b>networks</b>	<a href="#">Network[]</a>	
<b>permissions</b>	<a href="#">Permission[]</a>	
<b>scheduling_policy</b>	<a href="#">SchedulingPolicy</a>	Reference to the default scheduling policy used by this cluster.

### 7.35.15. external\_network\_providers

A reference to the external network provider available in the cluster.

If the automatic deployment of the external network provider is supported, the networks of the referenced network provider are available on every host in the cluster. External network providers of a cluster can only be set during [adding the cluster](#). This value may be overwritten for individual hosts during [adding the host](#).

### 7.35.16. scheduling\_policy

Reference to the default scheduling policy used by this cluster.



#### NOTE

The scheduling policy properties are taken by default from the referenced scheduling policy, but they are overridden by the properties specified in the **custom\_scheduling\_policy\_properties** attribute for this cluster.

## 7.36. CLUSTERFEATURE STRUCT

Type represents an additional feature that is available at a cluster level.

Table 7.49. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.

Name	Type	Summary
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.

Table 7.50. Links summary

Name	Type	Summary
<b>cluster_level</b>	<a href="#">ClusterLevel</a>	Reference to the cluster level.

## 7.37. CLUSTERLEVEL STRUCT

Describes the capabilities supported by a specific cluster level.

Table 7.51. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>cpu_types</b>	<a href="#">CpuType[]</a>	The CPU types supported by this cluster level.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>permits</b>	<a href="#">Permit[]</a>	The permits supported by this cluster level.

Table 7.52. Links summary

Name	Type	Summary
<b>cluster_features</b>	<a href="#">ClusterFeature[]</a>	The additional features supported by this cluster level.

## 7.38. CLUSTERUPGRADEACTION ENUM

The action type for cluster upgrade action.

Table 7.53. Values summary

Name	Summary
<b>finish</b>	The upgrade action to be passed to finish the cluster upgrade process by marking the cluster's <code>upgrade_running</code> flag to false.
<b>start</b>	The upgrade action to be passed to start the cluster upgrade process by marking the cluster's <code>upgrade_running</code> flag to true.
<b>update_progresses</b>	The upgrade action to be passed to update the cluster upgrade progress.

### 7.38.1. finish

The upgrade action to be passed to finish the cluster upgrade process by marking the cluster's `upgrade_running` flag to false. This should be used at the end of the cluster upgrade process.

### 7.38.2. start

The upgrade action to be passed to start the cluster upgrade process by marking the cluster's `upgrade_running` flag to true. This should be used at the beginning of the cluster upgrade process.

### 7.38.3. update\_progress

The upgrade action to be passed to update the cluster upgrade progress. This should be used as the upgrade progresses.

## 7.39. CONFIGURATION STRUCT

Table 7.54. Attributes summary

Name	Type	Summary
<b>data</b>	<a href="#">String</a>	The document describing the virtual machine.
<b>type</b>	<a href="#">ConfigurationType</a>	

### 7.39.1. data

The document describing the virtual machine.

Example of the OVF document:

```
<?xml version='1.0' encoding='UTF-8'?>
<ovf:Envelope xmlns:ovf="http://schemas.dmtf.org/ovf/envelope/1/"
  xmlns:rasd="http://schemas.dmtf.org/wbem/wscim/1/cim-
  schema/2/CIM_ResourceAllocationSettingData"
  xmlns:vssd="http://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/CIM_VirtualSystemSettingData"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  ovf:version="3.5.0.0">
  <References/>
```

```

<Section xsi:type="ovf:NetworkSection_Type">
  <Info>List of networks</Info>
  <Network ovf:name="Network 1"/>
</Section>
<Section xsi:type="ovf:DiskSection_Type">
  <Info>List of Virtual Disks</Info>
</Section>
<Content ovf:id="out" xsi:type="ovf:VirtualSystem_Type">
  <CreationDate>2014/12/03 04:25:45</CreationDate>
  <ExportDate>2015/02/09 14:12:24</ExportDate>
  <DeleteProtected>>false</DeleteProtected>
  <SsoMethod>guest_agent</SsoMethod>
  <IsSmartcardEnabled>>false</IsSmartcardEnabled>
  <TimeZone>Etc/GMT</TimeZone>
  <default_boot_sequence>0</default_boot_sequence>
  <Generation>1</Generation>
  <VmType>1</VmType>
  <MinAllocatedMem>1024</MinAllocatedMem>
  <IsStateless>>false</IsStateless>
  <IsRunAndPause>>false</IsRunAndPause>
  <AutoStartup>>false</AutoStartup>
  <Priority>1</Priority>
  <CreatedByUserId>fdfc627c-d875-11e0-90f0-83df133b58cc</CreatedByUserId>
  <IsBootMenuEnabled>>false</IsBootMenuEnabled>
  <IsSpiceFileTransferEnabled>>true</IsSpiceFileTransferEnabled>
  <IsSpiceCopyPasteEnabled>>true</IsSpiceCopyPasteEnabled>
  <Name>VM_export</Name>
  <TemplateId>00000000-0000-0000-0000-000000000000</TemplateId>
  <TemplateName>Blank</TemplateName>
  <IsInitalized>>false</IsInitalized>
  <Origin>3</Origin>
  <DefaultDisplayType>1</DefaultDisplayType>
  <TrustedService>>false</TrustedService>
  <OriginalTemplateId>00000000-0000-0000-0000-000000000000</OriginalTemplateId>
  <OriginalTemplateName>Blank</OriginalTemplateName>
  <UseLatestVersion>>false</UseLatestVersion>
  <Section ovf:id="70b4d9a7-4f73-4def-89ca-24fc5f60e01a"
    ovf:required="false"
    xsi:type="ovf:OperatingSystemSection_Type">
    <Info>Guest Operating System</Info>
    <Description>other</Description>
  </Section>
  <Section xsi:type="ovf:VirtualHardwareSection_Type">
    <Info>1 CPU, 1024 Memory</Info>
    <System>
      <vssd:VirtualSystemType>ENGINE 3.5.0.0</vssd:VirtualSystemType>
    </System>
    <Item>
      <rasd:Caption>1 virtual cpu</rasd:Caption>
      <rasd:Description>Number of virtual CPU</rasd:Description>
      <rasd:InstancelId>1</rasd:InstancelId>
      <rasd:ResourceType>3</rasd:ResourceType>
      <rasd:num_of_sockets>1</rasd:num_of_sockets>
      <rasd:cpu_per_socket>1</rasd:cpu_per_socket>
    </Item>
  </Section>

```

```

<rasd:Caption>1024 MB of memory</rasd:Caption>
<rasd:Description>Memory Size</rasd:Description>
<rasd:Instanceld>2</rasd:Instanceld>
<rasd:ResourceType>4</rasd:ResourceType>
<rasd:AllocationUnits>MegaBytes</rasd:AllocationUnits>
<rasd:VirtualQuantity>1024</rasd:VirtualQuantity>
</Item>
<Item>
<rasd:Caption>USB Controller</rasd:Caption>
<rasd:Instanceld>3</rasd:Instanceld>
<rasd:ResourceType>23</rasd:ResourceType>
<rasd:UsbPolicy>DISABLED</rasd:UsbPolicy>
</Item>
</Section>
</Content>
</ovf:Envelope>

```

## 7.40. CONFIGURATIONTYPE ENUM

Configuration format types.

Table 7.55. Values summary

Name	Summary
<b>ova</b>	ConfigurationType of type standard OVF.
<b>ovf</b>	ConfigurationType of type oVirt-compatible OVF.

### 7.40.1. ova

ConfigurationType of type standard OVF.

The provided virtual machine configuration conforms with the Open Virtualization Format (OVF) standard. This value should be used for an OVF configuration that is extracted from an Open Virtual Appliance (OVA) that was generated by oVirt or by other vendors. See the [OVF specification](#).

### 7.40.2. ovf

ConfigurationType of type oVirt-compatible OVF.

The provided virtual machine configuration conforms with the oVirt-compatible form of the Open Virtualization Format (OVF). Note that the oVirt-compatible form of the OVF may differ from the OVF standard that is used by other vendors. This value should be used for an OVF configuration that is taken from a storage domain.

## 7.41. CONSOLE STRUCT

Representation for serial console device.

Table 7.56. Attributes summary

Name	Type	Summary
<b>enabled</b>	Boolean	Enable/disable the serial console device.

## 7.42. CORE STRUCT

Table 7.57. Attributes summary

Name	Type	Summary
<b>index</b>	Integer	
<b>socket</b>	Integer	

## 7.43. CPU STRUCT

Table 7.58. Attributes summary

Name	Type	Summary
<b>architecture</b>	Architecture	
<b>cores</b>	Core[]	
<b>cpu_tune</b>	CpuTune	
<b>level</b>	Integer	
<b>mode</b>	CpuMode	
<b>name</b>	String	
<b>speed</b>	Decimal	
<b>topology</b>	CpuTopology	
<b>type</b>	String	

## 7.44. CPUMODE ENUM

Table 7.59. Values summary

Name	Summary
<b>custom</b>	

Name	Summary
<b>host_model</b>	
<b>host_passthrough</b>	

## 7.45. CPUPINNINGPOLICY ENUM

Type representing the CPU and NUMA pinning policy.

Table 7.60. Values summary

Name	Summary
<b>dedicated</b>	The CPU pinning will be automatically calculated by the engine when a vm starts and it will be dropped when the vm stops.
<b>isolate_threads</b>	The CPU pinning will be automatically calculated by the engine when a vm starts, and it will be dropped when the vm stops.
<b>manual</b>	The CPU pinning will be manually configured.
<b>none</b>	The CPU pinning won't be configured.
<b>resize_and_pin_numa</b>	The CPU and NUMA pinning will be configured by the dedicated host.

### 7.45.1. dedicated

The CPU pinning will be automatically calculated by the engine when a vm starts and it will be dropped when the vm stops.

The pinning is exclusive, that means that no other VM can use the pinned physical CPU.

### 7.45.2. isolate\_threads

The CPU pinning will be automatically calculated by the engine when a vm starts, and it will be dropped when the vm stops.

The pinning is exclusive, each virtual thread will get an exclusive physical core. That means that no other VM can use the pinned physical CPU.

### 7.45.3. manual

The CPU pinning will be manually configured.

Currently, this means that the CPU pinning will be manually configured to the current virtual machine configuration. The VM needs to be pinned to at least one host. The Pinning is provided within the CPU configuration, using CpuTune.

#### 7.45.4. none

The CPU pinning won't be configured.

Currently, this means that the CPU pinning won't be configured to the current virtual machine configuration. By default, the VM topology is set with 1 Socket, 1 Core and 1 Thread.

#### 7.45.5. resize\_and\_pin\_numa

The CPU and NUMA pinning will be configured by the dedicated host.

The CPU and NUMA pinning will use the dedicated host CPU topology. The virtual machine configuration will automatically be set to fit the host to get the highest possible performance.

## 7.46. CPUPROFILE STRUCT

Table 7.61. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.

Table 7.62. Links summary

Name	Type	Summary
<b>cluster</b>	Cluster	
<b>permissions</b>	Permission[]	
<b>qos</b>	Qos	

## 7.47. CPUTOPOLOGY STRUCT

Table 7.63. Attributes summary

Name	Type	Summary
<b>cores</b>	Integer	

Name	Type	Summary
<b>sockets</b>	<a href="#">Integer</a>	
<b>threads</b>	<a href="#">Integer</a>	

## 7.48. CPUTUNE STRUCT

Table 7.64. Attributes summary

Name	Type	Summary
<b>vcpu_pins</b>	<a href="#">VcpuPin[]</a>	

## 7.49. CPUTYPE STRUCT

Describes a supported CPU type.

Table 7.65. Attributes summary

Name	Type	Summary
<b>architecture</b>	<a href="#">Architecture</a>	The architecture of the CPU.
<b>level</b>	<a href="#">Integer</a>	The level of the CPU type.
<b>name</b>	<a href="#">String</a>	The name of the CPU type, for example <b>Intel Nehalem Family</b> .

## 7.50. CREATIONSTATUS ENUM

Table 7.66. Values summary

Name	Summary
<b>complete</b>	
<b>failed</b>	
<b>in_progress</b>	
<b>pending</b>	

## 7.51. CUSTOMPROPERTY STRUCT

Custom property representation.

Table 7.67. Attributes summary

Name	Type	Summary
<b>name</b>	String	Property name.
<b>regexp</b>	String	A regular expression defining the available values a custom property can get.
<b>value</b>	String	Property value.

## 7.52. DATACENTER STRUCT

Table 7.68. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>local</b>	Boolean	
<b>name</b>	String	A human-readable name in plain text.
<b>quota_mode</b>	QuotaModeType	
<b>status</b>	DataCenterStatus	
<b>storage_format</b>	StorageFormat	
<b>supported_versions</b>	Version[]	
<b>version</b>	Version	The compatibility version of the data center.

### 7.52.1. version

The compatibility version of the data center.

All clusters in this data center must already be set to at least this compatibility version.

For example:

```
GET /ovirt-engine/api/datacenters/123
```

Will respond:

```
<data_center>
...
<version>
  <major>4</major>
  <minor>0</minor>
</version>
...
</data_center>
```

To update the compatibility version, use:

```
PUT /ovirt-engine/api/datacenters/123
```

With a request body:

```
<data_center>
<version>
  <major>4</major>
  <minor>1</minor>
</version>
</data_center>
```

Table 7.69. Links summary

Name	Type	Summary
<b>clusters</b>	<a href="#">Cluster[]</a>	Reference to clusters inside this data center.
<b>iscsi_bonds</b>	<a href="#">IscsiBond[]</a>	Reference to iSCSI bonds used by this data center.
<b>mac_pool</b>	<a href="#">MacPool</a>	Reference to the MAC pool used by this data center.
<b>networks</b>	<a href="#">Network[]</a>	Reference to networks attached to this data center.
<b>permissions</b>	<a href="#">Permission[]</a>	Reference to permissions assigned to this data center.
<b>qoss</b>	<a href="#">Qos[]</a>	Reference to quality of service used by this data center.
<b>quotas</b>	<a href="#">Quota[]</a>	Reference to quotas assigned to this data center.
<b>storage_domains</b>	<a href="#">StorageDomain[]</a>	Reference to storage domains attached to this data center.

## 7.53. DATACENTERSTATUS ENUM

Table 7.70. Values summary

Name	Summary
<b>contend</b>	
<b>maintenance</b>	
<b>not_operational</b>	
<b>problematic</b>	
<b>uninitialized</b>	
<b>up</b>	

## 7.54. DEVICE STRUCT

A device wraps links to potential parents of a device.

Table 7.71. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.

Table 7.72. Links summary

Name	Type	Summary
<b>instance_type</b>	<a href="#">InstanceType</a>	Optionally references to an instance type the device is used by.
<b>template</b>	<a href="#">Template</a>	Optionally references to a template the device is used by.
<b>vm</b>	<a href="#">Vm</a>	Do not use this element, use <b>vms</b> instead.
<b>vms</b>	<a href="#">Vm[]</a>	References to the virtual machines that are using this device.

### 7.54.1. vms

References to the virtual machines that are using this device. A device may be used by several virtual machines; for example, a shared disk may be used simultaneously by two or more virtual machines.

## 7.55. DISK STRUCT

Represents a virtual disk device.

Table 7.73. Attributes summary

Name	Type	Summary
<b>active</b>	Boolean	Indicates if the disk is visible to the virtual machine.
<b>actual_size</b>	Integer	The actual size of the disk, in bytes.
<b>alias</b>	String	
<b>backup</b>	DiskBackup	The backup behavior supported by the disk.
<b>backup_mode</b>	DiskBackupMode	The type of the disk backup (full/incremental), visible only when the disk backup is in progress.
<b>bootable</b>	Boolean	Indicates if the disk is marked as bootable.
<b>comment</b>	String	Free text containing comments about this object.
<b>content_type</b>	DiskContentType	Indicates the actual content residing on the disk.
<b>description</b>	String	A human-readable description in plain text.
<b>external_disk</b>	String	Use external disk.
<b>format</b>	DiskFormat	The underlying storage format.
<b>id</b>	String	A unique identifier.
<b>image_id</b>	String	
<b>initial_size</b>	Integer	The initial size of a sparse image disk created on block storage, in bytes.
<b>interface</b>	DiskInterface	The type of interface driver used to connect the disk device to the virtual machine.
<b>logical_name</b>	String	
<b>lun_storage</b>	HostStorage	
<b>name</b>	String	A human-readable name in plain text.

Name	Type	Summary
<b>propagate_errors</b>	Boolean	Indicates if disk errors should cause virtual machine to be paused or if disk errors should be propagated to the the guest operating system instead.
<b>provisioned_size</b>	Integer	The virtual size of the disk, in bytes.
<b>qcow_version</b>	QcowVersion	The underlying QCOW version of a QCOW volume.
<b>read_only</b>	Boolean	Indicates if the disk is in read-only mode.
<b>sgio</b>	ScsiGenericIO	Indicates whether SCSI passthrough is enable and its policy.
<b>shareable</b>	Boolean	Indicates if the disk can be attached to multiple virtual machines.
<b>sparse</b>	Boolean	Indicates if the physical storage for the disk should not be preallocated.
<b>status</b>	DiskStatus	The status of the disk device.
<b>storage_type</b>	DiskStorageType	
<b>total_size</b>	Integer	The total size of the disk including all of its snapshots, in bytes.
<b>uses_scsi_reservation</b>	Boolean	
<b>wipe_after_delete</b>	Boolean	Indicates if the disk's blocks will be read back as zeros after it is deleted:  - On block storage, the disk will be zeroed and only then deleted.

### 7.55.1. active

Indicates if the disk is visible to the virtual machine.



#### IMPORTANT

When adding a disk attachment to a virtual machine, if the server accepts requests that do not contain this attribute the result is undefined. In some cases the disk will be automatically activated and in other cases it will not. To avoid issues it is strongly recommended to always include the this attribute with the desired value.

### 7.55.2. actual\_size

The actual size of the disk, in bytes.

The actual size is the number of bytes actually used by the disk. It will be smaller than the provisioned size for disks that use the **cow** format.

### 7.55.3. bootable

Indicates if the disk is marked as bootable.



#### IMPORTANT

This attribute only makes sense for disks that are actually connected to virtual machines, and in version 4 of the API it has been moved to the [DiskAttachment](#) type. It is preserved here only for backwards compatibility, and it will be removed in the future.

### 7.55.4. external\_disk

Use external disk.

An external disk can be a path to a local file or a block device, or a URL supported by QEMU such as:

- `nbd:<host>:<port>[:exportname=<export>]`
- `nbd:unix:</path>[:exportname=<export>]`
- `http://[<username>[:<password>]@]<host>/<path>`
- `https://[<username>[:<password>]@]<host>/<path>`
- `ftp://[<username>[:<password>]@]<host>/<path>`
- `ftps://[<username>[:<password>]@]<host>/<path>`

See the QEMU manual for additional supported protocols and more info.

### 7.55.5. initial\_size

The initial size of a sparse image disk created on block storage, in bytes.

The initial size is the number of bytes a sparse disk is initially allocated with when created on block storage. The initial size will be smaller than the provisioned size. If not specified the default initial size used by the system will be allocated.

### 7.55.6. interface

The type of interface driver used to connect the disk device to the virtual machine.



#### IMPORTANT

This attribute only makes sense for disks that are actually connected to virtual machines, and in version 4 of the API it has been moved to the [DiskAttachment](#) type. It is preserved here only for backwards compatibility, and it will be removed in the future.

### 7.55.7. provisioned\_size

The virtual size of the disk, in bytes.

This attribute is mandatory when creating a new disk.

### 7.55.8. qcow\_version

The underlying QCOW version of a QCOW volume. The QCOW version specifies to the qemu which qemu version the volume supports. This field can be updated using the update API and will be reported only for QCOW volumes. It is determined by the version of the storage domain that the disk is created on. Storage domains with a version lower than V4 support QCOW2 volumes. V4 storage domains also support QCOW2v3. For more information about features of the different QCOW versions, see [QCOW3](#).

### 7.55.9. read\_only

Indicates if the disk is in read-only mode.

Since version 4.0 this attribute is not shown in the API and was moved to [DiskAttachment](#).

Since version 4.1.2 of Red Hat Virtualization Manager this attribute is deprecated, and it will be removed in the future. In order to attach a disk in read only mode use the **read\_only** attribute of the [DiskAttachment](#) type. For example:

```
POST /ovirt-engine/api/vms/123/diskattachments
```

```
<disk_attachment>
  <read_only>true</read_only>
  ...
</disk_attachment>
```

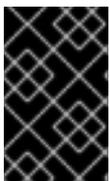
### 7.55.10. sgio

Indicates whether SCSI passthrough is enable and its policy.

Setting a value of **filtered/unfiltered** will enable SCSI passthrough for a LUN disk with unprivileged/privileged SCSI I/O. To disable SCSI passthrough the value should be set to **disabled**

### 7.55.11. shareable

Indicates if the disk can be attached to multiple virtual machines.



#### IMPORTANT

When a disk is attached to multiple virtual machines it is the responsibility of the guest operating systems of those virtual machines to coordinate access to it, to avoid corruption of the data, for example using a shared file system like [GlusterFS](#) or [GFS](#).

### 7.55.12. total\_size

The total size of the disk including all of its snapshots, in bytes.

The total size is the number of bytes actually used by the disk plus the size of its snapshots. It won't be populated for direct LUN and Cinder disks. For disks without snapshots the total size is equal to the actual size.

### 7.55.13. wipe\_after\_delete

Indicates if the disk's blocks will be read back as zeros after it is deleted:

- On block storage, the disk will be zeroed and only then deleted.
- On file storage, since the file system already guarantees that previously removed blocks are read back as zeros, the disk will be deleted immediately.

Table 7.74. Links summary

Name	Type	Summary
<b>disk_profile</b>	<a href="#">DiskProfile</a>	
<b>disk_snapshots</b>	<a href="#">DiskSnapshot[]</a>	
<b>instance_type</b>	<a href="#">InstanceType</a>	Optionally references to an instance type the device is used by.
<b>openstack_volume_type</b>	<a href="#">OpenStackVolumeType</a>	
<b>permissions</b>	<a href="#">Permission[]</a>	
<b>quota</b>	<a href="#">Quota</a>	
<b>snapshot</b>	<a href="#">Snapshot</a>	
<b>statistics</b>	<a href="#">Statistic[]</a>	Statistics exposed by the disk.
<b>storage_domain</b>	<a href="#">StorageDomain</a>	
<b>storage_domains</b>	<a href="#">StorageDomain[]</a>	The storage domains associated with this disk.
<b>template</b>	<a href="#">Template</a>	Optionally references to a template the device is used by.
<b>vm</b>	<a href="#">Vm</a>	Do not use this element, use <b>vms</b> instead.
<b>vms</b>	<a href="#">Vm[]</a>	References to the virtual machines that are using this device.

### 7.55.14. statistics

Statistics exposed by the disk. For example:

```
<statistics>
  <statistic href="/ovirt-engine/api/disks/123/statistics/456" id="456">
    <name>data.current.read</name>
    <description>Read data rate</description>
    <kind>gauge</kind>
```

```

<type>decimal</type>
<unit>bytes_per_second</unit>
<values>
  <value>
    <datum>1052</datum>
  </value>
</values>
<disk href="/ovirt-engine/api/disks/123" id="123"/>
</statistic>
...
</statistics>

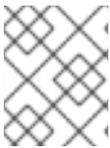
```

These statistics are not directly included when the disk is retrieved, only a link. To obtain the statistics follow the included link:

```
GET /ovirt-engine/api/disks/123/statistics
```

### 7.55.15. storage\_domains

The storage domains associated with this disk.



#### NOTE

Only required when the first disk is being added to a virtual machine that was not itself created from a template.

### 7.55.16. vms

References to the virtual machines that are using this device. A device may be used by several virtual machines; for example, a shared disk may be used simultaneously by two or more virtual machines.

## 7.56. DISKATTACHMENT STRUCT

Describes how a disk is attached to a virtual machine.

Table 7.75. Attributes summary

Name	Type	Summary
<b>active</b>	Boolean	Defines whether the disk is active in the virtual machine it's attached to.
<b>bootable</b>	Boolean	Defines whether the disk is bootable.
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.

Name	Type	Summary
<b>interface</b>	<a href="#">DiskInterface</a>	The type of interface driver used to connect the disk device to the virtual machine.
<b>logical_name</b>	<a href="#">String</a>	The logical name of the virtual machine's disk, as seen from inside the virtual machine.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>pass_discard</b>	<a href="#">Boolean</a>	Defines whether the virtual machine passes discard commands to the storage.
<b>read_only</b>	<a href="#">Boolean</a>	Indicates whether the disk is connected to the virtual machine as read only.
<b>uses_scsi_reservation</b>	<a href="#">Boolean</a>	Defines whether SCSI reservation is enabled for this disk.

### 7.56.1. active

Defines whether the disk is active in the virtual machine it's attached to.

A disk attached to a virtual machine in an active status is connected to the virtual machine at run time and can be used.

### 7.56.2. logical\_name

The logical name of the virtual machine's disk, as seen from inside the virtual machine.

The logical name of a disk is reported only when the guest agent is installed and running inside the virtual machine.

For example, if the guest operating system is Linux and the disk is connected via a VirtIO interface, the logical name will be reported as **/dev/vda**:

```
<disk_attachment>
...
<logical_name>/dev/vda</logical_name>
</disk_attachment>
```

If the guest operating system is Windows, the logical name will be reported as **\\.\PHYSICALDRIVE0**.

### 7.56.3. read\_only

Indicates whether the disk is connected to the virtual machine as read only.

When adding a new disk attachment the default value is **false**.

```
<disk_attachment>
...
```

```
<read_only>true</read_only>
</disk_attachment>
```

#### 7.56.4. uses\_scsi\_reservation

Defines whether SCSI reservation is enabled for this disk.

Virtual machines with VIRTIO-SCSI passthrough enabled can set persistent SCSI reservations on disks. If they set persistent SCSI reservations, those virtual machines cannot be migrated to a different host because they would lose access to the disk, because SCSI reservations are specific to SCSI initiators, and therefore hosts. This scenario cannot be automatically detected. To avoid migrating these virtual machines, the user can set this attribute to **true**, to indicate the virtual machine is using SCSI reservations.

Table 7.76. Links summary

Name	Type	Summary
<b>disk</b>	Disk	The reference to the disk.
<b>template</b>	Template	The reference to the template.
<b>vm</b>	Vm	The reference to the virtual machine.

#### 7.57. DISKBACKUP ENUM

Represents an enumeration of the backup mechanism that is enabled on the disk.

Table 7.77. Values summary

Name	Summary
<b>incremental</b>	Incremental backup support.
<b>none</b>	No backup support.

#### 7.58. DISKBACKUPMODE ENUM

Represents an enumeration of backup modes

Table 7.78. Values summary

Name	Summary
<b>full</b>	This disk supports full backup.
<b>incremental</b>	This disk supports incremental backup.

##### 7.58.1. full

This disk supports full backup. You can query zero extents and download all disk data.

### 7.58.2. incremental

This disk supports incremental backup. You can query dirty extents and download changed blocks.

## 7.59. DISKCONTENTTYPE ENUM

The actual content residing on the disk.

Table 7.79. Values summary

Name	Summary
<b>backup_scratch</b>	The disk contains protected VM backup data.
<b>data</b>	The disk contains data.
<b>hosted_engine</b>	The disk contains the Hosted Engine VM disk.
<b>hosted_engine_configuration</b>	The disk contains the Hosted Engine configuration disk.
<b>hosted_engine_metadata</b>	The disk contains the Hosted Engine metadata disk.
<b>hosted_engine_sanlock</b>	The disk contains the Hosted Engine Sanlock disk.
<b>iso</b>	The disk contains an ISO image to be used a CDROM device.
<b>memory_dump_volume</b>	The disk contains a memory dump from a live snapshot.
<b>memory_metadata_volume</b>	The disk contains memory metadata from a live snapshot.
<b>ovf_store</b>	The disk is an OVF store.

## 7.60. DISKFORMAT ENUM

The underlying storage format of disks.

Table 7.80. Values summary

Name	Summary
<b>cow</b>	The <i>Copy On Write</i> format allows snapshots, with a small performance overhead.

Name	Summary
<b>raw</b>	The raw format does not allow snapshots, but offers improved performance.

## 7.61. DISKINTERFACE ENUM

The underlying storage interface of disks communication with controller.

Table 7.81. Values summary

Name	Summary
<b>ide</b>	Legacy controller device.
<b>sata</b>	SATA controller device.
<b>spapr_vscsi</b>	Para-virtualized device supported by the IBM pSeries family of machines, using the SCSI protocol.
<b>virtio</b>	Virtualization interface where just the guest's device driver knows it is running in a virtual environment.
<b>virtio_scsi</b>	Para-virtualized SCSI controller device.

### 7.61.1. ide

Legacy controller device. Works with almost all guest operating systems, so it is good for compatibility. Performance is lower than with the other alternatives.

### 7.61.2. virtio

Virtualization interface where just the guest's device driver knows it is running in a virtual environment. Enables guests to get high performance disk operations.

### 7.61.3. virtio\_scsi

Para-virtualized SCSI controller device. Fast interface with the guest via direct physical storage device address, using the SCSI protocol.

## 7.62. DISKPROFILE STRUCT

Table 7.82. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.

Name	Type	Summary
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.

Table 7.83. Links summary

Name	Type	Summary
<b>permissions</b>	Permission[]	
<b>qos</b>	Qos	
<b>storage_domain</b>	StorageDomain	

## 7.63. DISKSNAPSHOT STRUCT

Table 7.84. Attributes summary

Name	Type	Summary
<b>active</b>	Boolean	Indicates if the disk is visible to the virtual machine.
<b>actual_size</b>	Integer	The actual size of the disk, in bytes.
<b>alias</b>	String	
<b>backup</b>	DiskBackup	The backup behavior supported by the disk.
<b>backup_mode</b>	DiskBackupMode	The type of the disk backup (full/incremental), visible only when the disk backup is in progress.
<b>bootable</b>	Boolean	Indicates if the disk is marked as bootable.
<b>comment</b>	String	Free text containing comments about this object.
<b>content_type</b>	DiskContentType	Indicates the actual content residing on the disk.
<b>description</b>	String	A human-readable description in plain text.
<b>external_disk</b>	String	Use external disk.
<b>format</b>	DiskFormat	The underlying storage format.
<b>id</b>	String	A unique identifier.

Name	Type	Summary
<b>image_id</b>	String	
<b>initial_size</b>	Integer	The initial size of a sparse image disk created on block storage, in bytes.
<b>interface</b>	DiskInterface	The type of interface driver used to connect the disk device to the virtual machine.
<b>logical_name</b>	String	
<b>lun_storage</b>	HostStorage	
<b>name</b>	String	A human-readable name in plain text.
<b>propagate_errors</b>	Boolean	Indicates if disk errors should cause virtual machine to be paused or if disk errors should be propagated to the the guest operating system instead.
<b>provisioned_size</b>	Integer	The virtual size of the disk, in bytes.
<b>qcow_version</b>	QcowVersion	The underlying QCOW version of a QCOW volume.
<b>read_only</b>	Boolean	Indicates if the disk is in read-only mode.
<b>sgio</b>	ScsiGenericIO	Indicates whether SCSI passthrough is enable and its policy.
<b>shareable</b>	Boolean	Indicates if the disk can be attached to multiple virtual machines.
<b>sparse</b>	Boolean	Indicates if the physical storage for the disk should not be preallocated.
<b>status</b>	DiskStatus	The status of the disk device.
<b>storage_type</b>	DiskStorageType	
<b>total_size</b>	Integer	The total size of the disk including all of its snapshots, in bytes.
<b>uses_scsi_reservation</b>	Boolean	
<b>wipe_after_delete</b>	Boolean	Indicates if the disk's blocks will be read back as zeros after it is deleted:  - On block storage, the disk will be zeroed and only then deleted.

### 7.63.1. active

Indicates if the disk is visible to the virtual machine.



#### IMPORTANT

When adding a disk attachment to a virtual machine, if the server accepts requests that do not contain this attribute the result is undefined. In some cases the disk will be automatically activated and in other cases it will not. To avoid issues it is strongly recommended to always include the this attribute with the desired value.

### 7.63.2. actual\_size

The actual size of the disk, in bytes.

The actual size is the number of bytes actually used by the disk. It will be smaller than the provisioned size for disks that use the **cow** format.

### 7.63.3. bootable

Indicates if the disk is marked as bootable.



#### IMPORTANT

This attribute only makes sense for disks that are actually connected to virtual machines, and in version 4 of the API it has been moved to the [DiskAttachment](#) type. It is preserved here only for backwards compatibility, and it will be removed in the future.

### 7.63.4. external\_disk

Use external disk.

An external disk can be a path to a local file or a block device, or a URL supported by QEMU such as:

- `nbd:<host>:<port>[:exportname=<export>]`
- `nbd:unix:</path>[:exportname=<export>]`
- `http://[<username>[:<password>]@]<host>/<path>`
- `https://[<username>[:<password>]@]<host>/<path>`
- `ftp://[<username>[:<password>]@]<host>/<path>`
- `ftps://[<username>[:<password>]@]<host>/<path>`

See the QEMU manual for additional supported protocols and more info.

### 7.63.5. initial\_size

The initial size of a sparse image disk created on block storage, in bytes.

The initial size is the number of bytes a sparse disk is initially allocated with when created on block storage. The initial size will be smaller than the provisioned size. If not specified the default initial size used by the system will be allocated.

### 7.63.6. interface

The type of interface driver used to connect the disk device to the virtual machine.



#### IMPORTANT

This attribute only makes sense for disks that are actually connected to virtual machines, and in version 4 of the API it has been moved to the [DiskAttachment](#) type. It is preserved here only for backwards compatibility, and it will be removed in the future.

### 7.63.7. provisioned\_size

The virtual size of the disk, in bytes.

This attribute is mandatory when creating a new disk.

### 7.63.8. qcow\_version

The underlying QCOW version of a QCOW volume. The QCOW version specifies to the qemu which qemu version the volume supports. This field can be updated using the update API and will be reported only for QCOW volumes. It is determined by the version of the storage domain that the disk is created on. Storage domains with a version lower than V4 support QCOW2 volumes. V4 storage domains also support QCOW2v3. For more information about features of the different QCOW versions, see [QCOW3](#).

### 7.63.9. read\_only

Indicates if the disk is in read-only mode.

Since version 4.0 this attribute is not shown in the API and was moved to [DiskAttachment](#).

Since version 4.1.2 of Red Hat Virtualization Manager this attribute is deprecated, and it will be removed in the future. In order to attach a disk in read only mode use the **read\_only** attribute of the [DiskAttachment](#) type. For example:

```
POST /ovirt-engine/api/vms/123/diskattachments
```

```
<disk_attachment>
  <read_only>true</read_only>
  ...
</disk_attachment>
```

### 7.63.10. sgio

Indicates whether SCSI passthrough is enable and its policy.

Setting a value of **filtered/unfiltered** will enable SCSI passthrough for a LUN disk with unprivileged/privileged SCSI I/O. To disable SCSI passthrough the value should be set to **disabled**

### 7.63.11. shareable

Indicates if the disk can be attached to multiple virtual machines.



## IMPORTANT

When a disk is attached to multiple virtual machines it is the responsibility of the guest operating systems of those virtual machines to coordinate access to it, to avoid corruption of the data, for example using a shared file system like [GlusterFS](#) or [GFS](#).

### 7.63.12. total\_size

The total size of the disk including all of its snapshots, in bytes.

The total size is the number of bytes actually used by the disk plus the size of its snapshots. It won't be populated for direct LUN and Cinder disks. For disks without snapshots the total size is equal to the actual size.

### 7.63.13. wipe\_after\_delete

Indicates if the disk's blocks will be read back as zeros after it is deleted:

- On block storage, the disk will be zeroed and only then deleted.
- On file storage, since the file system already guarantees that previously removed blocks are read back as zeros, the disk will be deleted immediately.

Table 7.85. Links summary

Name	Type	Summary
<b>disk</b>	<a href="#">Disk</a>	
<b>disk_profile</b>	<a href="#">DiskProfile</a>	
<b>disk_snapshots</b>	<a href="#">DiskSnapshot[]</a>	
<b>instance_type</b>	<a href="#">InstanceType</a>	Optionally references to an instance type the device is used by.
<b>openstack_volume_type</b>	<a href="#">OpenStackVolumeType</a>	
<b>parent</b>	<a href="#">DiskSnapshot</a>	Parent disk snapshot.
<b>permissions</b>	<a href="#">Permission[]</a>	
<b>quota</b>	<a href="#">Quota</a>	
<b>snapshot</b>	<a href="#">Snapshot</a>	
<b>statistics</b>	<a href="#">Statistic[]</a>	Statistics exposed by the disk.
<b>storage_domain</b>	<a href="#">StorageDomain</a>	

Name	Type	Summary
<b>storage_domains</b>	<a href="#">StorageDomain[]</a>	The storage domains associated with this disk.
<b>template</b>	<a href="#">Template</a>	Optionally references to a template the device is used by.
<b>vm</b>	<a href="#">Vm</a>	Do not use this element, use <b>vms</b> instead.
<b>vms</b>	<a href="#">Vm[]</a>	References to the virtual machines that are using this device.

### 7.63.14. statistics

Statistics exposed by the disk. For example:

```
<statistics>
  <statistic href="/ovirt-engine/api/disks/123/statistics/456" id="456">
    <name>data.current.read</name>
    <description>Read data rate</description>
    <kind>gauge</kind>
    <type>decimal</type>
    <unit>bytes_per_second</unit>
    <values>
      <value>
        <datum>1052</datum>
      </value>
    </values>
    <disk href="/ovirt-engine/api/disks/123" id="123"/>
  </statistic>
  ...
</statistics>
```

These statistics are not directly included when the disk is retrieved, only a link. To obtain the statistics follow the included link:

```
GET /ovirt-engine/api/disks/123/statistics
```

### 7.63.15. storage\_domains

The storage domains associated with this disk.



#### NOTE

Only required when the first disk is being added to a virtual machine that was not itself created from a template.

### 7.63.16. vms

References to the virtual machines that are using this device. A device may be used by several virtual machines; for example, a shared disk may be used simultaneously by two or more virtual machines.

## 7.64. DISKSTATUS ENUM

Current status representation for disk.

Table 7.86. Values summary

Name	Summary
<b>illegal</b>	Disk cannot be accessed by the virtual machine, and the user needs to take action to resolve the issue.
<b>locked</b>	The disk is being used by the system, therefore it cannot be accessed by virtual machines at this point.
<b>ok</b>	The disk status is normal and can be accessed by the virtual machine.

### 7.64.1. locked

The disk is being used by the system, therefore it cannot be accessed by virtual machines at this point. This is usually a temporary status, until the disk is freed.

## 7.65. DISKSTORAGETYPE ENUM

Table 7.87. Values summary

Name	Summary
<b>cinder</b>	
<b>image</b>	
<b>lun</b>	
<b>managed_block_storage</b>	A storage type, used for a storage domain that was created using a cinderlib driver.

## 7.66. DISKTYPE ENUM

Table 7.88. Values summary

Name	Summary
<b>data</b>	
<b>system</b>	

## 7.67. DISPLAY STRUCT

Represents a graphic console configuration.

**Table 7.89. Attributes summary**

Name	Type	Summary
<b>address</b>	String	The IP address of the guest to connect the graphic console client to.
<b>allow_override</b>	Boolean	Indicates if to override the display address per host.
<b>certificate</b>	Certificate	The TLS certificate in case of a TLS connection.
<b>copy_paste_enabled</b>	Boolean	Indicates whether a user is able to copy and paste content from an external host into the graphic console.
<b>disconnect_action</b>	String	Returns the action that will take place when the graphic console is disconnected.
<b>disconnect_action_delay</b>	Integer	Delay (in minutes) before the graphic console disconnect action is carried out.
<b>file_transfer_enabled</b>	Boolean	Indicates if a user is able to drag and drop files from an external host into the graphic console.
<b>keyboard_layout</b>	String	The keyboard layout to use with this graphic console.
<b>monitors</b>	Integer	The number of monitors opened for this graphic console.
<b>port</b>	Integer	The port address on the guest to connect the graphic console client to.
<b>proxy</b>	String	The proxy IP which will be used by the graphic console client to connect to the guest.
<b>secure_port</b>	Integer	The secured port address on the guest, in case of using TLS, to connect the graphic console client to.
<b>single_qxl_pci</b>	Boolean	The engine now sets it automatically according to the operating system.
<b>smartcard_enabled</b>	Boolean	Indicates if to use smart card authentication.
<b>type</b>	DisplayType	The graphic console protocol type.

### 7.67.1. allow\_override

Indicates if to override the display address per host. Relevant only for the **Host.display** attribute. If set, the graphical console address of a virtual machine will be overridden by the host specified display address. If not set, the graphical console address of a virtual machine will not be overridden.

### 7.67.2. certificate

The TLS certificate in case of a TLS connection. If TLS isn't enabled then it won't be reported.

### 7.67.3. copy\_paste\_enabled

Indicates whether a user is able to copy and paste content from an external host into the graphic console. This option is only available for the SPICE console type.

### 7.67.4. disconnect\_action

Returns the action that will take place when the graphic console is disconnected. The options are:

#### **none**

No action is taken.

#### **lock\_screen**

Locks the currently active user session.

#### **logout**

Logs out the currently active user session.

#### **reboot**

Initiates a graceful virtual machine reboot.

#### **shutdown**

Initiates a graceful virtual machine shutdown.

This option is only available for the SPICE console type.

### 7.67.5. disconnect\_action\_delay

Delay (in minutes) before the graphic console disconnect action is carried out. This option is only available for Shutdown disconnect action.

### 7.67.6. file\_transfer\_enabled

Indicates if a user is able to drag and drop files from an external host into the graphic console. This option is only available for the SPICE console type.

### 7.67.7. keyboard\_layout

The keyboard layout to use with this graphic console. This option is only available for the VNC console type. If no keyboard is enabled then it won't be reported.

### 7.67.8. monitors

The number of monitors opened for this graphic console. This option is only available for the SPICE console type. Possible values are 1, 2 or 4.

### 7.67.9. proxy

The proxy IP which will be used by the graphic console client to connect to the guest. It is useful when the client is outside the guest's network. This option is only available for the SPICE console type. This proxy can be set in global configuration, cluster level, virtual machine pool level or disabled per virtual machine. If the proxy is set in any of this mentioned places and not disabled for the virtual machine, it will be returned by this method. If the proxy is not set, nothing will be reported.

### 7.67.10. secure\_port

The secured port address on the guest, in case of using TLS, to connect the graphic console client to. If TLS isn't enabled then it won't be reported.

### 7.67.11. single\_qxl\_pci

The engine now sets it automatically according to the operating system. Therefore, it has been deprecated since 4.4.5. Indicates if to use one PCI slot for each monitor or to use a single PCI channel for all multiple monitors. This option is only available for the SPICE console type and only for connecting a guest Linux based OS.

### 7.67.12. smartcard\_enabled

Indicates if to use smart card authentication. This option is only available for the SPICE console type.

## 7.68. DISPLAYTYPE ENUM

Represents an enumeration of the protocol used to connect to the graphic console of the virtual machine.

Table 7.90. Values summary

Name	Summary
<b>spice</b>	Display of type SPICE.
<b>vnc</b>	Display of type VNC.

### 7.68.1. spice

Display of type SPICE. See [SPICE documentation](#) for more details.

### 7.68.2. vnc

Display of type VNC. VNC stands for Virtual Network Computing, and it is a graphical desktop sharing system that uses RFB (Remote Frame Buffer) protocol to remotely control another machine.

## 7.69. DNS STRUCT

Represents the DNS resolver configuration.

Table 7.91. Attributes summary

Name	Type	Summary
<b>search_domains</b>	<a href="#">Host[]</a>	Array of hosts serving as search domains.
<b>servers</b>	<a href="#">Host[]</a>	Array of hosts serving as DNS servers.

## 7.70. DNSRESOLVERCONFIGURATION STRUCT

Represents the DNS resolver configuration.

Table 7.92. Attributes summary

Name	Type	Summary
<b>name_servers</b>	<a href="#">String[]</a>	Array of addresses of name servers.

### 7.70.1. name\_servers

Array of addresses of name servers. Either IPv4 or IPv6 addresses may be specified.

## 7.71. DOMAIN STRUCT

This type represents a directory service domain.

Table 7.93. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>user</b>	<a href="#">User</a>	

Table 7.94. Links summary

Name	Type	Summary
<b>groups</b>	<a href="#">Group[]</a>	A reference to all groups in the directory service.
<b>users</b>	<a href="#">User[]</a>	A reference to a list of all users in the directory service.

### 7.71.1. users

A reference to a list of all users in the directory service. This information is used to add new users to the Red Hat Virtualization environment.

## 7.72. DYNAMICCPU STRUCT

Configuration of the Dynamic CPUs of a virtual machine.

Table 7.95. Attributes summary

Name	Type	Summary
<b>cpu_tune</b>	<a href="#">CpuTune</a>	
<b>topology</b>	<a href="#">CpuTopology</a>	

## 7.73. ENTITYEXTERNALSTATUS ENUM

Type representing an external entity status.

Table 7.96. Values summary

Name	Summary
<b>error</b>	The external entity status is erroneous.
<b>failure</b>	The external entity has an issue that causes failures.
<b>info</b>	There external entity status is okay but with some information that might be relevant.
<b>ok</b>	The external entity status is okay.
<b>warning</b>	The external entity status is okay but with an issue that might require attention.

### 7.73.1. error

The external entity status is erroneous. This might require a moderate attention.

### 7.73.2. failure

The external entity has an issue that causes failures. This might require immediate attention.

## 7.74. ENTITYPROFILEDETAIL STRUCT

Table 7.97. Attributes summary

Name	Type	Summary
<b>profile_details</b>	<a href="#">ProfileDetail[]</a>	

## 7.75. ERRORHANDLING STRUCT

Table 7.98. Attributes summary

Name	Type	Summary
<b>on_error</b>	<a href="#">MigrateOnError</a>	

## 7.76. EVENT STRUCT

Type representing an event.

Table 7.99. Attributes summary

Name	Type	Summary
<b>code</b>	<a href="#">Integer</a>	The event code.
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>correlation_id</b>	<a href="#">String</a>	The event correlation identifier.
<b>custom_data</b>	<a href="#">String</a>	Free text representing custom event data.
<b>custom_id</b>	<a href="#">Integer</a>	A custom event identifier.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>flood_rate</b>	<a href="#">Integer</a>	Defines the flood rate.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>index</b>	<a href="#">Integer</a>	The numeric index of this event.
<b>log_on_host</b>	<a href="#">Boolean</a>	Specifies whether the event should also be written to the <code>hypervisor</code> .
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>origin</b>	<a href="#">String</a>	Free text identifying the origin of the event.
<b>severity</b>	<a href="#">LogSeverity</a>	The event severity.

Name	Type	Summary
<b>time</b>	<a href="#">Date</a>	The event time.

### 7.76.1. correlation\_id

The event correlation identifier. Used in order to correlate several events together.

### 7.76.2. flood\_rate

Defines the flood rate. This prevents flooding in case an event appeared more than once in the defined rate. Defaults is 30 seconds.

### 7.76.3. index

The numeric index of this event. The indexes of events are always increasing, so events with higher indexes are guaranteed to be older than events with lower indexes.



#### IMPORTANT

In the current implementation of the engine, the **id** attribute has the same value as this **index** attribute. That is an implementation detail that the user of the API should not rely on. In the future the **id** attribute may be changed to an arbitrary string, containing non numeric characters and no implicit order. On the other hand this **index** attribute is guaranteed to stay as integer and ordered.

### 7.76.4. log\_on\_host

Specifies whether the event should also be written to the `hypervisor.name` log. If no host is specified the event description will be written to all hosts. Default is false.

Table 7.100. Links summary

Name	Type	Summary
<b>cluster</b>	<a href="#">Cluster</a>	Reference to the cluster service.
<b>data_center</b>	<a href="#">DataCenter</a>	Reference to the data center service.
<b>host</b>	<a href="#">Host</a>	Reference to the host service.
<b>storage_domain</b>	<a href="#">StorageDomain</a>	Reference to the storage domain service.
<b>template</b>	<a href="#">Template</a>	Reference to the template service.
<b>user</b>	<a href="#">User</a>	Reference to the user service.

Name	Type	Summary
<b>vm</b>	<a href="#">Vm</a>	Reference to the virtual machine service.

### 7.76.5. cluster

Reference to the cluster service. Event can be associated with a cluster.

### 7.76.6. data\_center

Reference to the data center service. Event can be associated with a data center.

### 7.76.7. host

Reference to the host service. Event can be associated with a host.

### 7.76.8. storage\_domain

Reference to the storage domain service. Event can be associated with a storage domain.

### 7.76.9. template

Reference to the template service. Event can be associated with a template.

### 7.76.10. user

Reference to the user service. Event can be associated with a user.

### 7.76.11. vm

Reference to the virtual machine service. Event can be associated with a virtual machine.

## 7.77. EVENTSUBSCRIPTION STRUCT

Table 7.101. Attributes summary

Name	Type	Summary
<b>address</b>	<a href="#">String</a>	The email address to which notifications should be sent.
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>event</b>	<a href="#">NotifiableEvent</a>	The subscribed-for event.
<b>id</b>	<a href="#">String</a>	A unique identifier.

Name	Type	Summary
<b>name</b>	String	A human-readable name in plain text.
<b>notification_method</b>	NotificationMethod	The notification method: SMTP or SNMP.
<b>user</b>	User	The subscribing user.

### 7.77.1. address

The email address to which notifications should be sent.

When not provided, notifications are sent to the user's email. Only a single address per user is currently supported. If a subscription with a different email address to that of existing subscriptions is added, a 409 (CONFLICT) status is returned with an explanation that the provided address conflicts with an existing address of an event-subscription for this user.

This field might be deprecated in the future, and notifications will always be sent on the user's email address.

### 7.77.2. event

The subscribed-for event.

(Combined with the user, Uniquely identifies the event-subscription).

### 7.77.3. notification\_method

The notification method: SMTP or SNMP.

Currently only SMTP supported by API. Support for SNMP will be added in the future.

### 7.77.4. user

The subscribing user.

Combined with the event-name, uniquely identifies the event-subscription.

## 7.78. EXTERNALCOMPUTERESOURCE STRUCT

Table 7.102. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.

Name	Type	Summary
<b>name</b>	String	A human-readable name in plain text.
<b>provider</b>	String	
<b>url</b>	String	
<b>user</b>	String	

Table 7.103. Links summary

Name	Type	Summary
<b>external_host_provider</b>	ExternalHostProvider	

## 7.79. EXTERNALDISCOVEREDHOST STRUCT

Table 7.104. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>ip</b>	String	
<b>last_report</b>	String	
<b>mac</b>	String	
<b>name</b>	String	A human-readable name in plain text.
<b>subnet_name</b>	String	

Table 7.105. Links summary

Name	Type	Summary
<b>external_host_provider</b>	ExternalHostProvider	

## 7.80. EXTERNALHOST STRUCT

Represents a host provisioned by a host provider (such as Foreman/Satellite).

See [Foreman documentation](#) for more details. See [Satellite documentation](#) for more details on Red Hat Satellite.

Table 7.106. Attributes summary

Name	Type	Summary
<b>address</b>	<a href="#">String</a>	The address of the host, either IP address or FQDN (Fully Qualified Domain Name).
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.

Table 7.107. Links summary

Name	Type	Summary
<b>external_host_provider</b>	<a href="#">ExternalHostProvider</a>	A reference to the external host provider that the host is managed by.

## 7.81. EXTERNALHOSTGROUP STRUCT

Table 7.108. Attributes summary

Name	Type	Summary
<b>architecture_name</b>	<a href="#">String</a>	
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>domain_name</b>	<a href="#">String</a>	
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.

Name	Type	Summary
<b>operating_system_name</b>	String	
<b>subnet_name</b>	String	

Table 7.109. Links summary

Name	Type	Summary
<b>external_host_provider</b>	ExternalHostProvider	

## 7.82. EXTERNALHOSTPROVIDER STRUCT

Represents an external host provider, such as Foreman or Satellite.

See [Foreman documentation](#) for more details. See [Satellite documentation](#) for more details on Red Hat Satellite.

Table 7.110. Attributes summary

Name	Type	Summary
<b>authentication_url</b>	String	Defines the external provider authentication URL address.
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.
<b>password</b>	String	Defines password for the user during the authentication process.
<b>properties</b>	Property[]	Array of provider name/value properties.
<b>requires_authentication</b>	Boolean	Defines whether provider authentication is required or not.
<b>url</b>	String	Defines URL address of the external provider.
<b>username</b>	String	Defines user name to be used during authentication process.

### 7.82.1. requires\_authentication

Defines whether provider authentication is required or not.

If authentication is required, both **username** and **password** attributes will be used during authentication.

Table 7.111. Links summary

Name	Type	Summary
<b>certificates</b>	<a href="#">Certificate[]</a>	A reference to the certificates the engine supports for this provider.
<b>compute_resou rces</b>	<a href="#">ExternalCompute Resource[]</a>	A reference to the compute resource as represented in the host provider.
<b>discovered_hos ts</b>	<a href="#">ExternalDiscover edHost[]</a>	A reference to the discovered hosts in the host provider.
<b>host_groups</b>	<a href="#">ExternalHostGrou p[]</a>	A reference to the host groups in the host provider.
<b>hosts</b>	<a href="#">Host[]</a>	A reference to the hosts provisioned by the host provider.

### 7.82.2. compute\_resources

A reference to the compute resource as represented in the host provider. Each host provider optionally has the engine defined as a compute resource, which allows to create virtual machines in the engine. This compute resource details are used in the Bare-Metal provisioning use-case, in order to deploy the hypervisor.

### 7.82.3. discovered\_hosts

A reference to the discovered hosts in the host provider. Discovered hosts are hosts that were not provisioned yet.

### 7.82.4. host\_groups

A reference to the host groups in the host provider. Host group contains different properties that the host provider applies on all hosts that are member of this group. Such as installed software, system definitions, passwords and more.

## 7.83. EXTERNALNETWORKPROVIDERCONFIGURATION STRUCT

Describes how an external network provider is provisioned on a host.

Table 7.112. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.

Table 7.113. Links summary

Name	Type	Summary
<b>external_network_provider</b>	ExternalProvider	Link to the external network provider.
<b>host</b>	Host	Link to the host.

## 7.84. EXTERNALPROVIDER STRUCT

Represents an external provider.

Table 7.114. Attributes summary

Name	Type	Summary
<b>authentication_url</b>	String	Defines the external provider authentication URL address.
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.
<b>password</b>	String	Defines password for the user during the authentication process.
<b>properties</b>	Property[]	Array of provider name/value properties.
<b>requires_authentication</b>	Boolean	Defines whether provider authentication is required or not.
<b>url</b>	String	Defines URL address of the external provider.

Name	Type	Summary
<b>username</b>	String	Defines user name to be used during authentication process.

### 7.84.1. requires\_authentication

Defines whether provider authentication is required or not.

If authentication is required, both **username** and **password** attributes will be used during authentication.

## 7.85. EXTERNALSTATUS ENUM

Represents an external status. This status is currently used for [hosts](#) and [storage domains](#), and allows an external system to update status of objects it is aware of.

Table 7.115. Values summary

Name	Summary
<b>error</b>	Error status.
<b>failure</b>	Failure status.
<b>info</b>	Info status.
<b>ok</b>	OK status.
<b>warning</b>	Warning status.

### 7.85.1. error

Error status. There is some kind of error in the relevant object.

### 7.85.2. failure

Failure status. The relevant object is failing.

### 7.85.3. info

Info status. The relevant object is in OK status, but there is an information available that might be relevant for the administrator.

### 7.85.4. ok

OK status. The relevant object is working well.

### 7.85.5. warning

Warning status. The relevant object is working well, but there is some warning that might be relevant for the administrator.

## 7.86. EXTERNALSYSTEMTYPE ENUM

Represents the type of the external system that is associated with the **step**.

Table 7.116. Values summary

Name	Summary
<b>gluster</b>	Represents <b>Gluster</b> as the external system which is associated with the <b>step</b> .
<b>vdsm</b>	Represents <b>VDSM</b> as the external system which is associated with the <b>step</b> .

## 7.87. EXTERNALTEMPLATEIMPORT STRUCT

Describes the parameters for the template import operation from an external system. Currently supports OVA only.

Table 7.117. Attributes summary

Name	Type	Summary
<b>clone</b>	Boolean	Optional.
<b>url</b>	String	The URL to be passed to the engine.

### 7.87.1. clone

Optional. Indicates if the identifiers of the imported template should be regenerated.

By default when a template is imported the identifiers are preserved. This means that the same template can't be imported multiple times, as that identifiers needs to be unique. To allow importing the same template multiple times set this parameter to **true**, as the default is **false**.

### 7.87.2. url

The URL to be passed to the engine.

Example:

```
ova:///mnt/ova/ova_file.ova
```

Table 7.118. Links summary

Name	Type	Summary
<b>cluster</b>	Cluster	Specifies the target cluster for the resulting template.

Name	Type	Summary
<b>cpu_profile</b>	<a href="#">CpuProfile</a>	Optional.
<b>host</b>	<a href="#">Host</a>	Specifies the host that the OVA file exists on.
<b>quota</b>	<a href="#">Quota</a>	Optional.
<b>storage_domain</b>	<a href="#">StorageDomain</a>	Specifies the target storage domain for disks.
<b>template</b>	<a href="#">Template</a>	The template entity used to specify a name for the newly created template.

### 7.87.3. cpu\_profile

Optional. Specifies the CPU profile of the resulting template.

### 7.87.4. quota

Optional. Specifies the quota that will be applied to the resulting template.

### 7.87.5. template

The template entity used to specify a name for the newly created template.

If a name is not specified, the source template name will be used.

## 7.88. EXTERNALVMIMPORT STRUCT

Describes the parameters for the virtual machine import operation from an external system.

Table 7.119. Attributes summary

Name	Type	Summary
<b>name</b>	<a href="#">String</a>	The name of the virtual machine to be imported, as is defined within the external system.
<b>password</b>	<a href="#">String</a>	The password to authenticate against the external hypervisor system.
<b>provider</b>	<a href="#">ExternalVmProviderType</a>	The type of external virtual machine provider.
<b>sparse</b>	<a href="#">Boolean</a>	Optional.
<b>url</b>	<a href="#">String</a>	The URL to be passed to the <b>virt-v2v</b> tool for conversion.

Name	Type	Summary
<b>username</b>	String	The username to authenticate against the external hypervisor system.

### 7.88.1. sparse

Optional. Specifies the disk allocation policy of the resulting virtual machine: **true** for sparse, **false** for preallocated.

If not specified: - When importing an OVA that was produced by oVirt, it will be determined according to the configuration of the disk within the OVF. - Otherwise, it will be set to true.

### 7.88.2. url

The URL to be passed to the **virt-v2v** tool for conversion.

Example:

```
vpv://wmware_user@vcenter-host/DataCenter/Cluster/esxi-host?no_verify=1
```

More examples can be found at <http://libguestfs.org/virt-v2v.1.html>.

Table 7.120. Links summary

Name	Type	Summary
<b>cluster</b>	Cluster	Specifies the target cluster for the resulting virtual machine.
<b>cpu_profile</b>	CpuProfile	Optional.
<b>drivers_iso</b>	File	Optional.
<b>host</b>	Host	Optional.
<b>quota</b>	Quota	Optional.
<b>storage_domain</b>	StorageDomain	Specifies the target storage domain for converted disks.
<b>vm</b>	Vm	The virtual machine entity used to specify a name for the newly created virtual machine.

### 7.88.3. cpu\_profile

Optional. Specifies the CPU profile of the resulting virtual machine.

### 7.88.4. drivers\_iso

Optional. The name of the ISO containing drivers that can be used during the **virt-v2v** conversion process.

### 7.88.5. host

Optional. Specifies the host (using host's ID) to be used for the conversion process. If not specified, one is selected automatically.

### 7.88.6. quota

Optional. Specifies the quota that will be applied to the resulting virtual machine.

### 7.88.7. vm

The virtual machine entity used to specify a name for the newly created virtual machine.

If a name is not specified, the source virtual machine name will be used.

## 7.89. EXTERNALVMPROVIDERTYPE ENUM

Describes the type of external hypervisor system.

Table 7.121. Values summary

Name	Summary
<b>kvm</b>	
<b>vmware</b>	
<b>xen</b>	

## 7.90. FAULT STRUCT

Table 7.122. Attributes summary

Name	Type	Summary
<b>detail</b>	String	
<b>reason</b>	String	

## 7.91. FENCETYPE ENUM

Type representing the type of the fence operation.

Table 7.123. Values summary

Name	Summary
<b>manual</b>	Manual host fencing via power management.
<b>restart</b>	Restart the host via power management.
<b>start</b>	Start the host via power management.
<b>status</b>	Check the host power status via power management.
<b>stop</b>	Stop the host via power management.

## 7.92. FENCINGPOLICY STRUCT

Type representing a cluster fencing policy.

Table 7.124. Attributes summary

Name	Type	Summary
<b>enabled</b>	Boolean	Enable or disable fencing on this cluster.
<b>skip_if_connectivity_broken</b>	SkipIfConnectivityBroken	If enabled, we will not fence a host in case more than a configurable percentage of hosts in the cluster lost connectivity as well.
<b>skip_if_gluster_bricks_up</b>	Boolean	A flag indicating if fencing should be skipped if Gluster bricks are up and running in the host being fenced.
<b>skip_if_gluster_quorum_not_met</b>	Boolean	A flag indicating if fencing should be skipped if Gluster bricks are up and running and Gluster quorum will not be met without those bricks.
<b>skip_if_sd_active</b>	SkipIfSdActive	If enabled, we will skip fencing in case the host maintains its lease in the storage.

### 7.92.1. skip\_if\_connectivity\_broken

If enabled, we will not fence a host in case more than a configurable percentage of hosts in the cluster lost connectivity as well. This comes to prevent fencing *storm* in cases where there is a global networking issue in the cluster.

### 7.92.2. skip\_if\_gluster\_bricks\_up

A flag indicating if fencing should be skipped if Gluster bricks are up and running in the host being fenced. This flag is optional, and the default value is **false**.

### 7.92.3. skip\_if\_gluster\_quorum\_not\_met

A flag indicating if fencing should be skipped if Gluster bricks are up and running and Gluster quorum will not be met without those bricks. This flag is optional, and the default value is **false**.

#### 7.92.4. skip\_if\_sd\_active

If enabled, we will skip fencing in case the host maintains its lease in the storage. It means that if the host still has storage access then it won't get fenced.

### 7.93. FILE STRUCT

Table 7.125. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>content</b>	String	
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.
<b>type</b>	String	

Table 7.126. Links summary

Name	Type	Summary
<b>storage_domain</b>	StorageDomain	

### 7.94. FILTER STRUCT

Table 7.127. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.
<b>position</b>	Integer	

Table 7.128. Links summary

Name	Type	Summary
<b>scheduling_policy_unit</b>	<a href="#">SchedulingPolicyUnit</a>	

## 7.95. FIPSMODE ENUM

Representation of the FIPS mode to the cluster.

Table 7.129. Values summary

Name	Summary
<b>disabled</b>	The FIPS mode is disabled.
<b>enabled</b>	The FIPS mode is enabled.
<b>undefined</b>	The FIPS mode is not yet evaluated.

### 7.95.1. disabled

The FIPS mode is disabled.

Its implication is that the FIPS mode is disabled and the hosts within should be with FIPS mode disabled, otherwise they would be non-operational.

### 7.95.2. enabled

The FIPS mode is enabled.

Its implication is that the FIPS mode is enabled and the hosts within should be with FIPS mode enabled, otherwise they should be non-operational.

### 7.95.3. undefined

The FIPS mode is not yet evaluated.

Currently, its implication is that the FIPS mode is undetermined. Once a host is added, this value will switch according to the host settings.

## 7.96. FIREWALLTYPE ENUM

Describes all firewall types supported by the system.

Table 7.130. Values summary

Name	Summary
<b>firewalld</b>	Firewalld firewall type.
<b>iptables</b>	IPTables firewall type.

### 7.96.1. firewalld

Firewalld firewall type.

When a cluster has the firewall type set to **firewalld**, the firewalls of all hosts in the cluster will be configured using **firewalld**. [Firewalld](#) replaced IPTables in version 4.2. It simplifies configuration using a command line program and dynamic configuration.

### 7.96.2. iptables

IPTables firewall type.

**iptables** is deprecated.

## 7.97. FLOPPY STRUCT

The underlying representation of a floppy file.

Table 7.131. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>file</b>	<a href="#">File</a>	File object that represent the Floppy device's content and its type.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.

Table 7.132. Links summary

Name	Type	Summary
<b>instance_type</b>	<a href="#">InstanceType</a>	Optionally references to an instance type the device is used by.
<b>template</b>	<a href="#">Template</a>	Optionally references to a template the device is used by.
<b>vm</b>	<a href="#">Vm</a>	Do not use this element, use <b>vms</b> instead.

Name	Type	Summary
<b>vms</b>	Vm[]	References to the virtual machines that are using this device.

### 7.97.1. vms

References to the virtual machines that are using this device. A device may be used by several virtual machines; for example, a shared disk may be used simultaneously by two or more virtual machines.

## 7.98. FOPSTATISTIC STRUCT

Table 7.133. Attributes summary

Name	Type	Summary
<b>name</b>	String	
<b>statistics</b>	Statistic[]	

## 7.99. GLUSTERBRICK STRUCT

Table 7.134. Attributes summary

Name	Type	Summary
<b>brick_dir</b>	String	
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>device</b>	String	
<b>fs_name</b>	String	
<b>gluster_clients</b>	GlusterClient[]	
<b>id</b>	String	A unique identifier.
<b>memory_pools</b>	GlusterMemoryPool[]	
<b>mnt_options</b>	String	
<b>name</b>	String	A human-readable name in plain text.

Name	Type	Summary
<b>pid</b>	Integer	
<b>port</b>	Integer	
<b>server_id</b>	String	
<b>status</b>	GlusterBrickStatus	

Table 7.135. Links summary

Name	Type	Summary
<b>gluster_volume</b>	GlusterVolume	
<b>instance_type</b>	InstanceType	Optionally references to an instance type the device is used by.
<b>statistics</b>	Statistic[]	
<b>template</b>	Template	Optionally references to a template the device is used by.
<b>vm</b>	Vm	Do not use this element, use <b>vms</b> instead.
<b>vms</b>	Vm[]	References to the virtual machines that are using this device.

### 7.99.1. vms

References to the virtual machines that are using this device. A device may be used by several virtual machines; for example, a shared disk may be used simultaneously by two or more virtual machines.

## 7.100. GLUSTERBRICKADVANCEDDETAILS STRUCT

Table 7.136. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>device</b>	String	
<b>fs_name</b>	String	
<b>gluster_clients</b>	GlusterClient[]	

Name	Type	Summary
<b>id</b>	String	A unique identifier.
<b>memory_pools</b>	GlusterMemoryPool[]	
<b>mnt_options</b>	String	
<b>name</b>	String	A human-readable name in plain text.
<b>pid</b>	Integer	
<b>port</b>	Integer	

Table 7.137. Links summary

Name	Type	Summary
<b>instance_type</b>	InstanceType	Optionally references to an instance type the device is used by.
<b>template</b>	Template	Optionally references to a template the device is used by.
<b>vm</b>	Vm	Do not use this element, use <b>vms</b> instead.
<b>vms</b>	Vm[]	References to the virtual machines that are using this device.

### 7.100.1. vms

References to the virtual machines that are using this device. A device may be used by several virtual machines; for example, a shared disk may be used simultaneously by two or more virtual machines.

## 7.101. GLUSTERBRICKMEMORYINFO STRUCT

Table 7.138. Attributes summary

Name	Type	Summary
<b>memory_pools</b>	GlusterMemoryPool[]	

## 7.102. GLUSTERBRICKSTATUS ENUM

Table 7.139. Values summary

Name	Summary
<b>down</b>	Brick is in <b>down</b> state, the data cannot be stored or retrieved from it.
<b>unknown</b>	When the status cannot be determined due to host being non-responsive.
<b>up</b>	Brick is in <b>up</b> state, the data can be stored or retrieved from it.

### 7.103. GLUSTERCLIENT STRUCT

Table 7.140. Attributes summary

Name	Type	Summary
<b>bytes_read</b>	Integer	
<b>bytes_written</b>	Integer	
<b>client_port</b>	Integer	
<b>host_name</b>	String	

### 7.104. GLUSTERHOOK STRUCT

Table 7.141. Attributes summary

Name	Type	Summary
<b>checksum</b>	String	
<b>comment</b>	String	Free text containing comments about this object.
<b>conflict_status</b>	Integer	
<b>conflicts</b>	String	
<b>content</b>	String	
<b>content_type</b>	HookContentType	
<b>description</b>	String	A human-readable description in plain text.
<b>gluster_command</b>	String	
<b>id</b>	String	A unique identifier.

Name	Type	Summary
<b>name</b>	String	A human-readable name in plain text.
<b>stage</b>	HookStage	
<b>status</b>	GlusterHookStatus	

Table 7.142. Links summary

Name	Type	Summary
<b>cluster</b>	Cluster	
<b>server_hooks</b>	GlusterServerHook[]	

## 7.105. GLUSTERHOOKSTATUS ENUM

Table 7.143. Values summary

Name	Summary
<b>disabled</b>	Hook is disabled in the cluster.
<b>enabled</b>	Hook is enabled in the cluster.
<b>missing</b>	Unknown/missing hook status.

## 7.106. GLUSTERMEMORYPOOL STRUCT

Table 7.144. Attributes summary

Name	Type	Summary
<b>alloc_count</b>	Integer	
<b>cold_count</b>	Integer	
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>hot_count</b>	Integer	

Name	Type	Summary
<b>id</b>	String	A unique identifier.
<b>max_alloc</b>	Integer	
<b>max_stdalloc</b>	Integer	
<b>name</b>	String	A human-readable name in plain text.
<b>padded_size</b>	Integer	
<b>pool_misses</b>	Integer	
<b>type</b>	String	

## 7.107. GLUSTERSERVERHOOK STRUCT

Table 7.145. Attributes summary

Name	Type	Summary
<b>checksum</b>	String	
<b>comment</b>	String	Free text containing comments about this object.
<b>content_type</b>	HookContentType	
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.
<b>status</b>	GlusterHookStatus	

Table 7.146. Links summary

Name	Type	Summary
<b>host</b>	Host	

## 7.108. GLUSTERSTATE ENUM

Table 7.147. Values summary

Name	Summary
<b>down</b>	
<b>unknown</b>	
<b>up</b>	

## 7.109. GLUSTERVOLUME STRUCT

Table 7.148. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>disperse_count</b>	<a href="#">Integer</a>	
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>options</b>	<a href="#">Option[]</a>	
<b>redundancy_count</b>	<a href="#">Integer</a>	
<b>replica_count</b>	<a href="#">Integer</a>	
<b>status</b>	<a href="#">GlusterVolumeStatus</a>	
<b>stripe_count</b>	<a href="#">Integer</a>	
<b>transport_types</b>	<a href="#">TransportType[]</a>	
<b>volume_type</b>	<a href="#">GlusterVolumeType</a>	

Table 7.149. Links summary

Name	Type	Summary
<b>bricks</b>	<a href="#">GlusterBrick[]</a>	
<b>cluster</b>	<a href="#">Cluster</a>	
<b>statistics</b>	<a href="#">Statistic[]</a>	

## 7.110. GLUSTERVOLUMEPROFILEDETAILS STRUCT

Table 7.150. Attributes summary

Name	Type	Summary
<b>brick_profile_details</b>	<a href="#">BrickProfileDetail[]</a>	
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>nfs_profile_details</b>	<a href="#">NfsProfileDetail[]</a>	

## 7.111. GLUSTERVOLUMESTATUS ENUM

Table 7.151. Values summary

Name	Summary
<b>down</b>	Volume needs to be started, for clients to be able to mount and use it.
<b>unknown</b>	When the status cannot be determined due to host being non-responsive.
<b>up</b>	Volume is started, and can be mounted and used by clients.

## 7.112. GLUSTERVOLUMETYPE ENUM

Type representing the type of Gluster Volume.

Table 7.152. Values summary

Name	Summary
<b>disperse</b>	Dispersed volumes are based on erasure codes, providing space-efficient protection against disk or server failures.
<b>distribute</b>	Distributed volumes distributes files throughout the bricks in the volume.
<b>distributed_disperse</b>	Distributed dispersed volumes distribute files across dispersed subvolumes.
<b>distributed_replicate</b>	Distributed replicated volumes distributes files across replicated bricks in the volume.
<b>distributed_stripe</b>	Distributed striped volumes stripe data across two or more nodes in the cluster.
<b>distributed_stripped_replicate</b>	Distributed striped replicated volumes distributes striped data across replicated bricks in the cluster.
<b>replicate</b>	Replicated volumes replicates files across bricks in the volume.
<b>stripe</b>	Striped volumes stripes data across bricks in the volume.
<b>striped_replicate</b>	Striped replicated volumes stripes data across replicated bricks in the cluster.

### 7.112.1. disperse

Dispersed volumes are based on erasure codes, providing space-efficient protection against disk or server failures.

Dispersed volumes an encoded fragment of the original file to each brick in a way that only a subset of the fragments is needed to recover the original file. The number of bricks that can be missing without losing access to data is configured by the administrator on volume creation time.

### 7.112.2. distribute

Distributed volumes distributes files throughout the bricks in the volume.

Distributed volumes can be used where the requirement is to scale storage and the redundancy is either not important or is provided by other hardware/software layers.

### 7.112.3. distributed\_disperse

Distributed dispersed volumes distribute files across dispersed subvolumes.

This has the same advantages of distribute replicate volumes, but using disperse to store the data into the bricks.

### 7.112.4. distributed\_replicate

Distributed replicated volumes distributes files across replicated bricks in the volume.

Distributed replicated volumes can be used in environments where the requirement is to scale storage and high-reliability is critical. Distributed replicated volumes also offer improved read performance in most environments.

#### **7.112.5. distributed\_stripe**

Distributed striped volumes stripe data across two or more nodes in the cluster.

Distributed striped volumes should be used where the requirement is to scale storage and in high concurrency environments accessing very large files is critical.

Note: With the introduction of Sharding in Glusterfs 3.7 releases, striped volumes are not recommended and it will be removed in future release.

#### **7.112.6. distributed\_striped\_replicate**

Distributed striped replicated volumes distributes striped data across replicated bricks in the cluster.

For best results, distributed striped replicated volumes should be used in highly concurrent environments where parallel access of very large files and performance is critical.

Note: With the introduction of Sharding in Glusterfs 3.7 releases, striped volumes are not recommended and it will be removed in future release.

#### **7.112.7. replicate**

Replicated volumes replicates files across bricks in the volume.

Replicated volumes can be used in environments where high-availability and high-reliability are critical.

#### **7.112.8. stripe**

Striped volumes stripes data across bricks in the volume.

For best results, striped volumes should only in high concurrency environments accessing very large files.

Note: With the introduction of Sharding in Glusterfs 3.7 releases, striped volumes are not recommended and it will be removed in future release.

#### **7.112.9. striped\_replicate**

Striped replicated volumes stripes data across replicated bricks in the cluster.

For best results, striped replicated volumes should be used in highly concurrent environments where there is parallel access of very large files and performance is critical.

Note: With the introduction of Sharding in Glusterfs 3.7 releases, striped volumes are not recommended and it will be removed in future release.

### **7.113. GRACEPERIOD STRUCT**

Table 7.153. Attributes summary

Name	Type	Summary
<b>expiry</b>	Integer	

## 7.114. GRAPHICSCONSOLE STRUCT

Table 7.154. Attributes summary

Name	Type	Summary
<b>address</b>	String	
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.
<b>port</b>	Integer	
<b>protocol</b>	GraphicsType	
<b>tls_port</b>	Integer	

Table 7.155. Links summary

Name	Type	Summary
<b>instance_type</b>	InstanceType	
<b>template</b>	Template	
<b>vm</b>	Vm	

## 7.115. GRAPHICSTYPE ENUM

The graphics protocol used to connect to the graphic console.

Table 7.156. Values summary

Name	Summary
<b>spice</b>	Graphics protocol of type SPICE.

Name	Summary
<b>vnc</b>	Graphics protocol of type VNC.

### 7.115.1. spice

Graphics protocol of type SPICE. See [SPICE documentation](#) for more details.

### 7.115.2. vnc

Graphics protocol of type VNC. VNC stands for Virtual Network Computing, and it is a graphical desktop sharing system that uses RFB (Remote Frame Buffer) protocol to remotely control another machine.

## 7.116. GROUP STRUCT

This type represents all groups in the directory service.

Table 7.157. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>domain_entry_id</b>	<a href="#">String</a>	The containing directory service domain id.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>namespace</b>	<a href="#">String</a>	Namespace where group resides.

Table 7.158. Links summary

Name	Type	Summary
<b>domain</b>	<a href="#">Domain</a>	A link to the domain containing this group.
<b>permissions</b>	<a href="#">Permission[]</a>	A link to the permissions sub-collection for permissions attached to this group.
<b>roles</b>	<a href="#">Role[]</a>	A link to the roles sub-collection for roles attached to this group.

Name	Type	Summary
<b>tags</b>	Tag[]	A link to the tags sub-collection for tags attached to this group.

### 7.116.1. roles

A link to the roles sub-collection for roles attached to this group.

Used only to represent the initial role assignments for a new group; thereafter, modification of role assignments is only supported via the **roles** sub-collection.

## 7.117. GUESTOPERATINGSYSTEM STRUCT

Represents an operating system installed on the virtual machine.

To get that information send a request like this:

```
GET /ovirt-engine/api/vms/123
```

The result will be like this:

```
<vm href="/ovirt-engine/api/vms/123" id="123">
...
<guest_operating_system>
  <architecture>x86_64</architecture>
  <codename>Maipo</codename>
  <distribution>Red Hat Enterprise Linux Server</distribution>
  <family>Linux</family>
  <kernel>
    <version>
      <build>0</build>
      <full_version>3.10.0-514.10.2.el7.x86_64</full_version>
      <major>3</major>
      <minor>10</minor>
      <revision>514</revision>
    </version>
  </kernel>
  <version>
    <full_version>7.3</full_version>
    <major>7</major>
    <minor>3</minor>
  </version>
</guest_operating_system>
</vm>
```

Table 7.159. Attributes summary

Name	Type	Summary
<b>architecture</b>	String	The architecture of the operating system, such as x86_64.

Name	Type	Summary
<b>codename</b>	String	Code name of the operating system, such as <b>Maipo</b> .
<b>distribution</b>	String	Full name of operating system distribution.
<b>family</b>	String	Family of operating system, such as <b>Linux</b> .
<b>kernel</b>	Kernel	Kernel version of the operating system.
<b>version</b>	Version	Version of the installed operating system.

## 7.118. HARDWAREINFORMATION STRUCT

Represents hardware information of host.

To get that information send a request like this:

```
GET /ovirt-engine/api/hosts/123
```

The result will be like this:

```
<host href="/ovirt-engine/api/hosts/123" id="123">
...
<hardware_information>
  <family>Red Hat Enterprise Linux</family>
  <manufacturer>Red Hat</manufacturer>
  <product_name>RHEV Hypervisor</product_name>
  <serial_number>01234567-89AB-CDEF-0123-456789ABCDEF</serial_number>
  <supported_rng_sources>
    <supported_rng_source>random</supported_rng_source>
  </supported_rng_sources>
  <uuid>12345678-9ABC-DEF0-1234-56789ABCDEF0</uuid>
  <version>1.2-34.5.el7ev</version>
</hardware_information>
...
</application>
```

Table 7.160. Attributes summary

Name	Type	Summary
<b>family</b>	String	Type of host's CPU.
<b>manufacturer</b>	String	Manufacturer of the host's machine and hardware vendor.
<b>product_name</b>	String	Host's product name (for example <b>RHEV Hypervisor</b> ).
<b>serial_number</b>	String	Unique ID for host's chassis.

Name	Type	Summary
<b>supported_rng_sources</b>	<a href="#">RngSource[]</a>	Supported sources of random number generator.
<b>uuid</b>	<a href="#">String</a>	Unique ID for each host.
<b>version</b>	<a href="#">String</a>	Unique name for each of the manufacturer.

## 7.119. HIGHAVAILABILITY STRUCT

Type representing high availability of a virtual machine.

Table 7.161. Attributes summary

Name	Type	Summary
<b>enabled</b>	<a href="#">Boolean</a>	Define if the virtual machine is considered highly available.
<b>priority</b>	<a href="#">Integer</a>	Indicates the priority of the virtual machine inside the run and migration queues.

### 7.119.1. enabled

Define if the virtual machine is considered highly available. Configuring a VM lease is highly recommended (refer to that section) in order to prevent split-brain scenarios. Use a boot disk's storage-domain or any other active storage-domain.

### 7.119.2. priority

Indicates the priority of the virtual machine inside the run and migration queues.

Virtual machines with higher priorities will be started and migrated before virtual machines with lower priorities.

The value is an integer between 0 and 100. The higher the value, the higher the priority.

The graphical user interface (GUI) does not allow specifying all the possible values, instead it only allows you to select *Low*, *Medium* or *High*. When the value is set using the API, the GUI will set the label as follows:

API Value	GUI Label
0 - 25	Low
26 - 74	Medium
75 - 100	High

When the label is selected using the GUI, the value in the API will be set as follows:

GUI Label	API Value
Low	1
Medium	50
High	100

## 7.120. HOOK STRUCT

Represents a hook.

Table 7.162. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>event_name</b>	String	Name of the event to execute the hook on.
<b>id</b>	String	A unique identifier.
<b>md5</b>	String	Checksum of the hook.
<b>name</b>	String	A human-readable name in plain text.

Table 7.163. Links summary

Name	Type	Summary
<b>host</b>	Host	Reference to the host the hook belongs to.

## 7.121. HOOKCONTENTTYPE ENUM

Represents content type of hook script.

Table 7.164. Values summary

Name	Summary
<b>binary</b>	Binary content type of the hook.
<b>text</b>	Text content type of the hook.

## 7.122. HOOKSTAGE ENUM

Type represents a stage of volume event at which hook executes.

Table 7.165. Values summary

Name	Summary
<b>post</b>	Stage after start of volume.
<b>pre</b>	Stage before start of volume.

## 7.123. HOOKSTATUS ENUM

Type represents the status of a hook.

Table 7.166. Values summary

Name	Summary
<b>disabled</b>	Hook is disabled.
<b>enabled</b>	Hook is enabled.
<b>missing</b>	Hook is missing.

## 7.124. HOST STRUCT

Type representing a host.

Table 7.167. Attributes summary

Name	Type	Summary
<b>address</b>	<a href="#">String</a>	The host address (FQDN/IP).
<b>auto_numa_status</b>	<a href="#">AutoNumaStatus</a>	The host <i>auto non uniform memory access</i> (NUMA) status.
<b>certificate</b>	<a href="#">Certificate</a>	The host certificate.
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>cpu</b>	<a href="#">Cpu</a>	The CPU type of this host.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.

Name	Type	Summary
<b>device_passthrough</b>	<a href="#">HostDevicePassthrough</a>	Specifies whether host device passthrough is enabled on this host.
<b>display</b>	<a href="#">Display</a>	Optionally specify the display address of this host explicitly.
<b>external_status</b>	<a href="#">ExternalStatus</a>	The host external status.
<b>hardware_information</b>	<a href="#">HardwareInformation</a>	The host hardware information.
<b>hosted_engine</b>	<a href="#">HostedEngine</a>	The self-hosted engine status of this host.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>iscsi</b>	<a href="#">IscsiDetails</a>	The host iSCSI details.
<b>kdump_status</b>	<a href="#">KdumpStatus</a>	The host KDUMP status.
<b>ksm</b>	<a href="#">Ksm</a>	Kernel SamePage Merging (KSM) reduces references to memory pages from multiple identical pages to a single page reference.
<b>libvirt_version</b>	<a href="#">Version</a>	The host libvirt version.
<b>max_scheduling_memory</b>	<a href="#">Integer</a>	The max scheduling memory on this host in bytes.
<b>memory</b>	<a href="#">Integer</a>	The amount of physical memory on this host in bytes.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>network_operation_in_progress</b>	<a href="#">Boolean</a>	Specifies whether a network-related operation, such as 'setup networks', 'sync networks', or 'refresh capabilities', is currently being executed on this host.
<b>numa_supported</b>	<a href="#">Boolean</a>	Specifies whether <i>non uniform memory access</i> (NUMA) is supported on this host.
<b>os</b>	<a href="#">OperatingSystem</a>	The operating system on this host.
<b>override_iptables</b>	<a href="#">Boolean</a>	Specifies whether we should override firewall definitions.
<b>ovn_configured</b>	<a href="#">Boolean</a>	Indicates if the host has correctly configured OVN.
<b>port</b>	<a href="#">Integer</a>	The host port.

Name	Type	Summary
<b>power_management</b>	<a href="#">PowerManagement</a>	The host power management definitions.
<b>protocol</b>	<a href="#">HostProtocol</a>	The protocol that the engine uses to communicate with the host.
<b>reinstallation_required</b>	<a href="#">Boolean</a>	Specifies whether the host should be reinstalled.
<b>root_password</b>	<a href="#">String</a>	When creating a new host, a root password is required if the password authentication method is chosen, but this is not subsequently included in the representation.
<b>se_linux</b>	<a href="#">SeLinux</a>	The host SELinux status.
<b>spm</b>	<a href="#">Spm</a>	The host <i>storage pool manager</i> (SPM) status and definition.
<b>ssh</b>	<a href="#">Ssh</a>	The SSH definitions.
<b>status</b>	<a href="#">HostStatus</a>	The host status.
<b>status_detail</b>	<a href="#">String</a>	The host status details.
<b>summary</b>	<a href="#">VmSummary</a>	The virtual machine summary - how many are active, migrating and total.
<b>transparent_huge_pages</b>	<a href="#">TransparentHugePages</a>	Transparent huge page support expands the size of memory pages beyond the standard 4 KiB limit.
<b>type</b>	<a href="#">HostType</a>	Indicates if the host contains a full installation of the operating system or a scaled-down version intended only to host virtual machines.
<b>update_available</b>	<a href="#">Boolean</a>	Specifies whether there is an oVirt-related update on this host.
<b>version</b>	<a href="#">Version</a>	The version of VDSM.
<b>vgpu_placement</b>	<a href="#">VgpuPlacement</a>	Specifies the vGPU placement strategy.

### 7.124.1. external\_status

The host external status. This can be used by third-party software to change the host external status in case of an issue. This has no effect on the host lifecycle, unless a third-party software checks for this status and acts accordingly.

### 7.124.2. hosted\_engine

The self-hosted engine status of this host.



#### IMPORTANT

When a host or collection of hosts is retrieved, this attribute is not included unless the **all\_content** parameter of the operation is explicitly set to **true**. See the documentation of the operations that retrieve [one](#) or [multiple](#) hosts for details.

### 7.124.3. kdump\_status

The host KDUMP status. KDUMP happens when the host kernel has crashed and it is now going through memory dumping.

### 7.124.4. ksm

Kernel SamePage Merging (KSM) reduces references to memory pages from multiple identical pages to a single page reference. This helps with optimization for memory density.

For example, to enable KSM for host **123**, send a request like this:

```
PUT /ovirt-engine/api/hosts/123
```

With a request body like this:

```
<host>
  <ksm>
    <enabled>true</enabled>
  </ksm>
</host>
```

### 7.124.5. libvirt\_version

The host libvirt version. For more information on libvirt please go to [libvirt](#).

### 7.124.6. network\_operation\_in\_progress

Specifies whether a network-related operation, such as 'setup networks', 'sync networks', or 'refresh capabilities', is currently being executed on this host.



#### NOTE

The header **All-Content:true** must be added to the request in order for this attribute to be included in the response.

### 7.124.7. override\_iptables

Specifies whether we should override firewall definitions. This applies only when the host is installed or re-installed.

### 7.124.8. protocol

The protocol that the engine uses to communicate with the host.



#### WARNING

Since version 4.1 of the engine the protocol is always set to **stomp** since **xml** was removed.

### 7.124.9. se\_linux

The host SELinux status. *Security-Enhanced Linux (SELinux)* is a component in the Linux kernel that provides a mechanism for supporting access control security policies.

### 7.124.10. spm

The host *storage pool manager (SPM)* status and definition. Use it to set the SPM priority of this host, and to see whether this is the current SPM or not.

### 7.124.11. status\_detail

The host status details. Relevant for Gluster hosts.

### 7.124.12. transparent\_huge\_pages

Transparent huge page support expands the size of memory pages beyond the standard 4 KiB limit. This reduces memory consumption and increases host performance.

For example, to enable transparent huge page support for host **123**, send a request like this:

```
PUT /ovirt-engine/api/hosts/123
```

With a request body like this:

```
<host>
  <transparent_hugepages>
    <enabled>true</enabled>
  </transparent_hugepages>
</host>
```

### 7.124.13. version

The version of VDSM.

For example:

```
GET /ovirt-engine/api/hosts/123
```

This **GET** request will return the following output:

```

<host>
  ...
  <version>
    <build>999</build>
    <full_version>vdsms-4.18.999-419.gitcf06367.el7</full_version>
    <major>4</major>
    <minor>18</minor>
    <revision>0</revision>
  </version>
  ...
</host>

```

Table 7.168. Links summary

Name	Type	Summary
<b>affinity_labels</b>	<a href="#">AffinityLabel[]</a>	
<b>agents</b>	<a href="#">Agent[]</a>	
<b>cluster</b>	<a href="#">Cluster</a>	
<b>cpu_units</b>	<a href="#">HostCpuUnit[]</a>	List of all host's CPUs with detailed information about the topology (socket, core) and with information about the current CPU pinning.
<b>devices</b>	<a href="#">HostDevice[]</a>	
<b>external_host_provider</b>	<a href="#">ExternalHostProvider</a>	
<b>external_network_provider_configurations</b>	<a href="#">ExternalNetworkProviderConfiguration[]</a>	External network providers provisioned on the host.
<b>hooks</b>	<a href="#">Hook[]</a>	
<b>katello_errata</b>	<a href="#">KatelloErratum[]</a>	Lists all the Katello errata assigned to the host.
<b>network_attachments</b>	<a href="#">NetworkAttachment[]</a>	
<b>nics</b>	<a href="#">HostNic[]</a>	
<b>numa_nodes</b>	<a href="#">NumaNode[]</a>	
<b>permissions</b>	<a href="#">Permission[]</a>	
<b>statistics</b>	<a href="#">Statistic[]</a>	Each host resource exposes a statistics sub-collection for host-specific statistics.

Name	Type	Summary
<b>storage_connection_extensions</b>	<a href="#">StorageConnectionExtension[]</a>	
<b>storages</b>	<a href="#">HostStorage[]</a>	
<b>tags</b>	<a href="#">Tag[]</a>	
<b>unmanaged_networks</b>	<a href="#">UnmanagedNetwork[]</a>	

#### 7.124.14. cpu\_units

List of all host's CPUs with detailed information about the topology (socket, core) and with information about the current CPU pinning.

GET /ovirt-engine/api/hosts/123/cpuunits

You will receive response in XML like this one:

```
<host_cpu_units>
  <host_cpu_unit>
    <core_id>0</core_id>
    <cpu_id>0</cpu_id>
    <socket_id>0</socket_id>
    <vms>
      <vm href="/ovirt-engine/api/vms/def" id="def" />
    </vms>
  </host_cpu_unit>
  <host_cpu_unit>
    <core_id>0</core_id>
    <cpu_id>1</cpu_id>
    <socket_id>1</socket_id>
    <runs_vdsm>true</runs_vdsm>
  </host_cpu_unit>
  <host_cpu_unit>
    <core_id>0</core_id>
    <cpu_id>2</cpu_id>
    <socket_id>2</socket_id>
  </host_cpu_unit>
</host_cpu_units>
```

#### 7.124.15. external\_network\_provider\_configurations

External network providers provisioned on the host.

This attribute is read-only. Setting it will have no effect on the host. The value of this parameter reflects the [Default Network Provider](#) of the cluster.

#### 7.124.16. katello\_errata

Lists all the Katello errata assigned to the host.

```
GET /ovirt-engine/api/hosts/123/katelloerrata
```

You will receive response in XML like this one:

```
<katello_errata>
  <katello_erratum href="/ovirt-engine/api/katelloerrata/456" id="456">
    <name>RHBA-2013:XYZ</name>
    <description>The description of the erratum</description>
    <title>some bug fix update</title>
    <type>bugfix</type>
    <issued>2013-11-20T02:00:00.000+02:00</issued>
    <solution>Few guidelines regarding the solution</solution>
    <summary>Updated packages that fix one bug are now available for XYZ</summary>
    <packages>
      <package>
        <name>libipa_hbac-1.9.2-82.11.el6_4.i686</name>
      </package>
      ...
    </packages>
  </katello_erratum>
  ...
</katello_errata>
```

### 7.124.17. statistics

Each host resource exposes a statistics sub-collection for host-specific statistics.

An example of an XML representation:

```
<statistics>
  <statistic href="/ovirt-engine/api/hosts/123/statistics/456" id="456">
    <name>memory.total</name>
    <description>Total memory</description>
    <kind>gauge</kind>
    <type>integer</type>
    <unit>bytes</unit>
    <values>
      <value>
        <datum>25165824000</datum>
      </value>
    </values>
    <host href="/ovirt-engine/api/hosts/123" id="123"/>
  </statistic>
  ...
</statistics>
```



#### NOTE

This statistics sub-collection is read-only.

The following list shows the statistic types for hosts:

Name	Description
<b>memory.total</b>	Total memory in bytes on the host.
<b>memory.used</b>	Memory in bytes used on the host.
<b>memory.free</b>	Memory in bytes free on the host.
<b>memory.shared</b>	Memory in bytes shared on the host.
<b>memory.buffers</b>	I/O buffers in bytes.
<b>memory.cached</b>	OS caches in bytes.
<b>swap.total</b>	Total swap memory in bytes on the host.
<b>swap.free</b>	Swap memory in bytes free on the host.
<b>swap.used</b>	Swap memory in bytes used on the host.
<b>swap.cached</b>	Swap memory in bytes also cached in host's memory.
<b>ksm.cpu.current</b>	Percentage of CPU usage for Kernel SamePage Merging.
<b>cpu.current.user</b>	Percentage of CPU usage for user slice.
<b>cpu.current.system</b>	Percentage of CPU usage for system.
<b>cpu.current.idle</b>	Percentage of idle CPU usage.
<b>cpu.load.avg.5m</b>	CPU load average per five minutes.
<b>boot.time</b>	Boot time of the machine.

## 7.125. HOSTCPUUNIT STRUCT

Type representing a physical CPU of a host with the current pinning status.

Table 7.169. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>core_id</b>	<a href="#">Integer</a>	The id of the core the CPU belongs to.

Name	Type	Summary
<b>cpu_id</b>	Integer	The id of the CPU.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.
<b>runs_vdsm</b>	Boolean	A flag indicating that the CPU runs the VDSM
<b>socket_id</b>	Integer	The id of the socket the CPU belongs to.

Table 7.170. Links summary

Name	Type	Summary
<b>vms</b>	Vm[]	A list of VMs that has its virtual CPU pinned to this physical CPU.

## 7.126. HOSTDEVICE STRUCT

Table 7.171. Attributes summary

Name	Type	Summary
<b>capability</b>	String	
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>driver</b>	String	The name of the driver this device is bound to.
<b>id</b>	String	A unique identifier.
<b>iommu_group</b>	Integer	
<b>m_dev_types</b>	MDevType[]	List of all supported mdev types on the physical device,
<b>name</b>	String	A human-readable name in plain text.
<b>physical_function</b>	HostDevice	

Name	Type	Summary
<b>placeholder</b>	<a href="#">Boolean</a>	
<b>product</b>	<a href="#">Product</a>	
<b>vendor</b>	<a href="#">Vendor</a>	
<b>virtual_function_s</b>	<a href="#">Integer</a>	

### 7.126.1. driver

The name of the driver this device is bound to.

For example: **pcieport** or **uhci\_hcd**.

Table 7.172. Links summary

Name	Type	Summary
<b>host</b>	<a href="#">Host</a>	
<b>parent_device</b>	<a href="#">HostDevice</a>	
<b>vm</b>	<a href="#">Vm</a>	

## 7.127. HOSTDEVICEPASSTHROUGH STRUCT

Table 7.173. Attributes summary

Name	Type	Summary
<b>enabled</b>	<a href="#">Boolean</a>	

## 7.128. HOSTNIC STRUCT

Represents a host NIC.

For example, the XML representation of a host NIC looks like this:

```
<host_nic href="/ovirt-engine/api/hosts/123/nics/456" id="456">
  <name>eth0</name>
  <boot_protocol>static</boot_protocol>
  <bridged>true</bridged>
  <custom_configuration>true</custom_configuration>
  <ip>
    <address>192.168.122.39</address>
```

```

<gateway>192.168.122.1</gateway>
<netmask>255.255.255.0</netmask>
<version>v4</version>
</ip>
<ipv6>
  <gateway>::</gateway>
  <version>v6</version>
</ipv6>
<ipv6_boot_protocol>none</ipv6_boot_protocol>
<mac>
  <address>52:54:00:0c:79:1d</address>
</mac>
<mtu>1500</mtu>
<status>up</status>
</host_nic>

```

A bonded interface is represented as a `HostNic` object containing the **bonding** and **slaves** attributes.

For example, the XML representation of a bonded host NIC looks like this:

```

<host_nic href="/ovirt-engine/api/hosts/123/nics/456" id="456">
  <name>bond0</name>
  <mac address="00:00:00:00:00:00"/>
  <ip>
    <address>192.168.122.39</address>
    <gateway>192.168.122.1</gateway>
    <netmask>255.255.255.0</netmask>
    <version>v4</version>
  </ip>
  <boot_protocol>dhcp</boot_protocol>
  <bonding>
    <options>
      <option>
        <name>mode</name>
        <value>4</value>
        <type>Dynamic link aggregation (802.3ad)</type>
      </option>
      <option>
        <name>miimon</name>
        <value>100</value>
      </option>
    </options>
    <slaves>
      <host_nic id="123"/>
      <host_nic id="456"/>
    </slaves>
  </bonding>
  <mtu>1500</mtu>
  <bridged>true</bridged>
  <custom_configuration>false</custom_configuration>
</host_nic>

```

Table 7.174. Attributes summary

Name	Type	Summary
<b>ad_aggregator_id</b>	Integer	The <b>ad_aggregator_id</b> property of a bond or bond slave, for bonds in mode 4.
<b>base_interface</b>	String	The base interface of the NIC.
<b>bonding</b>	Bonding	The bonding parameters of the NIC.
<b>boot_protocol</b>	BootProtocol	The IPv4 boot protocol configuration of the NIC.
<b>bridged</b>	Boolean	Defines the bridged network status.
<b>check_connectivity</b>	Boolean	
<b>comment</b>	String	Free text containing comments about this object.
<b>custom_configuration</b>	Boolean	
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>ip</b>	Ip	The IPv4 address of the NIC.
<b>ipv6</b>	Ip	The IPv6 address of the NIC.
<b>ipv6_boot_protocol</b>	BootProtocol	The IPv6 boot protocol configuration of the NIC.
<b>mac</b>	Mac	The MAC address of the NIC.
<b>mtu</b>	Integer	The maximum transmission unit for the interface.
<b>name</b>	String	A human-readable name in plain text.
<b>override_configuration</b>	Boolean	
<b>properties</b>	Property[]	
<b>speed</b>	Integer	
<b>status</b>	NicStatus	

Name	Type	Summary
<b>virtual_function_s_configuration</b>	<a href="#">HostNicVirtualFunctionsConfiguration</a>	Describes the virtual functions configuration of a physical function NIC.
<b>vlan</b>	<a href="#">Vlan</a>	

### 7.128.1. ad\_aggregator\_id

The **ad\_aggregator\_id** property of a bond or bond slave, for bonds in mode 4. Bond mode 4 is the 802.3ad standard, also called dynamic link aggregation. (See [Wikipedia](#) and [Presentation](#) for more information). This is only valid for bonds in mode 4, or NICs which are part of a bond. It is not present for bonds in other modes, or NICs which are not part of a bond in mode 4. The **ad\_aggregator\_id** property indicates which of the bond slaves are active. The value of the **ad\_aggregator\_id** of an active slave is the same as the value of the **ad\_aggregator\_id** property of the bond. This parameter is read only. Setting it will have no effect on the bond/NIC. It is retrieved from the `/sys/class/net/bondX/bonding/ad_aggregator` file for a bond, and the `/sys/class/net/ensX/bonding_slave/ad_aggregator_id` file for a NIC.

### 7.128.2. bridged

Defines the bridged network status. Set to **true** for a bridged network and **false** for a bridgeless network.

Table 7.175. Links summary

Name	Type	Summary
<b>host</b>	<a href="#">Host</a>	
<b>network</b>	<a href="#">Network</a>	A reference to the network to which the interface should be connected.
<b>network_labels</b>	<a href="#">NetworkLabel[]</a>	The labels that are applied to this NIC.
<b>physical_function</b>	<a href="#">HostNic</a>	A reference to the physical function NIC of a SR-IOV virtual function NIC.
<b>qos</b>	<a href="#">Qos</a>	A link to the quality-of-service configuration of the interface.
<b>statistics</b>	<a href="#">Statistic[]</a>	A link to the statistics of the NIC.

### 7.128.3. network

A reference to the network to which the interface should be connected. A blank network ID is allowed.

### 7.128.4. statistics

A link to the statistics of the NIC.

The data types for HostNic statistical values:

- `data.current.rx` - The rate in bytes per second of data received.
- `data.current.tx` - The rate in bytes per second of data transmitted.
- `data.current.rx.bps` - The rate in bits per second of data received (since version 4.2).
- `data.current.tx.bps` - The rate in bits per second of data transmitted (since version 4.2).
- `data.total.rx` - Total received data.
- `data.total.tx` - Total transmitted data.
- `errors.total.rx` - Total errors from receiving data.
- `errors.total.tx` - Total errors from transmitting data.

## 7.129. HOSTNICVIRTUALFUNCTIONSCONFIGURATION STRUCT

Describes the virtual functions configuration of an SR-IOV-enabled physical function NIC.

Table 7.176. Attributes summary

Name	Type	Summary
<b>all_networks_allowed</b>	Boolean	Defines whether all networks are allowed to be defined on the related virtual functions, or specified ones only.
<b>max_number_of_virtual_functions</b>	Integer	The maximum number of virtual functions the NIC supports.
<b>number_of_virtual_functions</b>	Integer	The number of virtual functions currently defined.

### 7.129.1. max\_number\_of\_virtual\_functions

The maximum number of virtual functions the NIC supports. This property is read-only.

### 7.129.2. number\_of\_virtual\_functions

The number of virtual functions currently defined. A user-defined value between 0 and **max\_number\_of\_virtual\_functions**.

## 7.130. HOSTPROTOCOL ENUM

The protocol used by the engine to communicate with a host.

**WARNING**

Since version 4.1 of the engine the protocol is always set to **stomp** since **xml** was removed.

Table 7.177. Values summary

Name	Summary
<b>stomp</b>	JSON-RPC protocol on top of STOMP.
<b>xml</b>	XML-RPC protocol.

**7.131. HOSTSTATUS ENUM**

Type representing a host status.

Table 7.178. Values summary

Name	Summary
<b>connecting</b>	The engine cannot communicate with the host for a specific threshold so it is now trying to connect before going through fencing.
<b>down</b>	The host is down.
<b>error</b>	The host is in error status.
<b>initializing</b>	The host is initializing.
<b>install_failed</b>	The host installation failed.
<b>installing</b>	The host is being installed.
<b>installing_os</b>	The host operating system is now installing.
<b>kdumping</b>	The host kernel has crashed and it is now going through memory dumping.
<b>maintenance</b>	The host is in maintenance status.
<b>non_operational</b>	The host is non operational.
<b>non_responsive</b>	The host is not responsive.

Name	Summary
<b>pending_approval</b>	The host is pending administrator approval.
<b>preparing_for_maintenance</b>	The host is preparing for maintenance.
<b>reboot</b>	The host is being rebooted.
<b>unassigned</b>	The host is in activation process.
<b>up</b>	The host is up.

### 7.131.1. error

The host is in error status. This will happen if we will try to run a virtual machine several times and it will fail.

### 7.131.2. initializing

The host is initializing. This is an intermediate step before moving the host to 'up' status.

### 7.131.3. install\_failed

The host installation failed. In such cases look at the event log to understand what failed the installation, and issue a re-install.

### 7.131.4. installing\_os

The host operating system is now installing. This status is relevant when using a Satellite/Foreman provider, and issuing a bare-metal provisioning (discovered host provisioning).

### 7.131.5. maintenance

The host is in maintenance status. When a host is in maintenance it cannot run virtual machines.

### 7.131.6. non\_operational

The host is non operational. This can happen due to various reasons, such as not having a connection with the storage, not supporting a mandatory network, not supporting the cluster level, and more.

### 7.131.7. non\_responsive

The host is not responsive. This means that the engine is not able to communicate with the host.

### 7.131.8. pending\_approval

The host is pending administrator approval. This is relevant only for vintage ovirt-node / RHV-H. This property is no longer relevant since Vintage Node is no longer supported, and has been deprecated.

### 7.131.9. preparing\_for\_maintenance

The host is preparing for maintenance. During this time the engine makes sure to live migrate all the virtual machines from this host to other hosts. Once all migrations have been completed the host will move to 'maintenance' status.

## 7.132. HOSTSTORAGE STRUCT

Table 7.179. Attributes summary

Name	Type	Summary
<b>address</b>	String	
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>driver_options</b>	Property[]	The options to be passed when creating a storage domain using a cinder driver.
<b>driver_sensitive_options</b>	Property[]	Parameters containing sensitive information, to be passed when creating a storage domain using a cinder driver.
<b>id</b>	String	A unique identifier.
<b>logical_units</b>	LogicalUnit[]	
<b>mount_options</b>	String	
<b>name</b>	String	A human-readable name in plain text.
<b>nfs_retrans</b>	Integer	The number of times to retry a request before attempting further recovery actions.
<b>nfs_timeo</b>	Integer	The time in tenths of a second to wait for a response before retrying NFS requests.
<b>nfs_version</b>	NfsVersion	
<b>override_luns</b>	Boolean	
<b>password</b>	String	
<b>path</b>	String	

Name	Type	Summary
<b>port</b>	Integer	
<b>portal</b>	String	
<b>target</b>	String	
<b>type</b>	StorageType	
<b>username</b>	String	
<b>vfs_type</b>	String	
<b>volume_group</b>	VolumeGroup	

### 7.132.1. driver\_options

The options to be passed when creating a storage domain using a cinder driver.

For example (Kaminario backend):

```
POST /ovirt-engine/api/storagedomains/
```

```
<storage_domain>
<name>kamniraio-cinder</name>
<type>managed_block_storage</type>
<storage>
  <type>managed_block_storage</type>
  <driver_options>
    <property>
      <name>san_ip</name>
      <value>192.168.1.1</value>
    </property>
    <property>
      <name>san_login</name>
      <value>username</value>
    </property>
    <property>
      <name>san_password</name>
      <value>password</value>
    </property>
    <property>
      <name>use_multipath_for_image_xfer</name>
      <value>>true</value>
    </property>
    <property>
      <name>volume_driver</name>
      <value>cinder.volume.drivers.kaminario.kaminario_iscsi.KaminarioISCSIDriver</value>
    </property>
  </driver_options>
```

```

</storage>
<host>
  <name>host</name>
</host>
</storage_domain>

```

### 7.132.2. driver\_sensitive\_options

Parameters containing sensitive information, to be passed when creating a storage domain using a cinder driver. These parameters are encrypted when they are saved.

For example, the following XML encrypts and saves a username, password and SAN IP address:

```
POST /ovirt-engine/api/storagedomains/
```

```

<storage_domain>
  <name>kamniraio-cinder</name>
  <type>managed_block_storage</type>
  <storage>
    <type>managed_block_storage</type>
    <driver_options>
      <property>
        <name>san_ip</name>
        <value>192.168.1.1</value>
      </property>
      <property>
        <name>san_login</name>
        <value>username</value>
      </property>
      <property>
        <name>san_password</name>
        <value>password</value>
      </property>
      <property>
        <name>use_multipath_for_image_xfer</name>
        <value>>true</value>
      </property>
      <property>
        <name>volume_driver</name>
        <value>cinder.volume.drivers.kaminario.kaminario_iscsi.KaminarioISCSIDriver</value>
      </property>
    </driver_options>
    <driver_sensitive_options>
      <property>
        <name>username</name>
        <value>admin</value>
      </property>
      <property>
        <name>password</name>
        <value>123</value>
      </property>
      <property>
        <name>san_ip</name>
        <value>192.168.1.1</value>
      </property>
    </driver_sensitive_options>
  </storage>
</storage_domain>

```

```

</driver_sensitive_options>
</storage>
<host>
  <name>host</name>
</host>
</storage_domain>

```

### 7.132.3. nfs\_retrans

The number of times to retry a request before attempting further recovery actions. The value must be in the range of 0 to 65535. For more details see the description of the **retrans** mount option in the **nfs** man page.

### 7.132.4. nfs\_timeo

The time in tenths of a second to wait for a response before retrying NFS requests. The value must be in the range of 0 to 65535. For more details see the description of the **timeo** mount option in the **nfs** man page.

Table 7.180. Links summary

Name	Type	Summary
<b>host</b>	<a href="#">Host</a>	

## 7.133. HOSTTYPE ENUM

This enumerated type is used to determine which type of operating system is used by the host.

Table 7.181. Values summary

Name	Summary
<b>ovirt_node</b>	The host contains Red Hat Virtualization Host (RHVH): a new implementation of Red Hat Enterprise Virtualization Hypervisor (RHEV-H) which uses the same installer as Red Hat Enterprise Linux, CentOS, or Fedora.
<b>rhel</b>	The host contains a full Red Hat Enterprise Linux, CentOS, or Fedora installation.
<b>rhev_h</b>	The host contains Red Hat Enterprise Virtualization Hypervisor (RHEV-H), a small-scaled version of Red Hat Enterprise Linux, CentOS, or Fedora, used solely to host virtual machines.

### 7.133.1. ovirt\_node

The host contains Red Hat Virtualization Host (RHVH): a new implementation of Red Hat Enterprise Virtualization Hypervisor (RHEV-H) which uses the same installer as Red Hat Enterprise Linux, CentOS, or Fedora. The main difference between RHVH and legacy RHEV-H is that RHVH has a writeable file system and will handle its own installation instead of having RPMs pushed to it by the Manager like in legacy RHEV-H.

### 7.133.2. rhev\_h

The host contains Red Hat Enterprise Virtualization Hypervisor (RHEV-H), a small-scaled version of Red Hat Enterprise Linux, CentOS, or Fedora, used solely to host virtual machines.

This property is no longer relevant since Vintage Node is no longer supported, and has been deprecated.

## 7.134. HOSTEDENGINE STRUCT

Table 7.182. Attributes summary

Name	Type	Summary
<b>active</b>	Boolean	
<b>configured</b>	Boolean	
<b>global_maintenance</b>	Boolean	
<b>local_maintenance</b>	Boolean	
<b>score</b>	Integer	

## 7.135. ICON STRUCT

Icon of virtual machine or template.

Table 7.183. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>data</b>	String	Base64 encode content of the icon file.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>media_type</b>	String	Format of icon file.
<b>name</b>	String	A human-readable name in plain text.

### 7.135.1. media\_type

Format of icon file.

One of:

- **image/jpeg**
- **image/png**
- **image/gif**

## 7.136. IDENTIFIED STRUCT

This interface is the base model for all types that represent objects with an identifier.

Table 7.184. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.

## 7.137. IMAGE STRUCT

Represents an image entity.

Table 7.185. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>size</b>	<a href="#">Integer</a>	The size of the image file.
<b>type</b>	<a href="#">ImageFileType</a>	The type of the image file.

Table 7.186. Links summary

Name	Type	Summary
<b>storage_domain</b>	<a href="#">StorageDomain</a>	The storage domain associated with this image.

Name	Type	Summary
------	------	---------

## 7.138. IMAGEFILETYPE ENUM

Represents the file type of an image.

Table 7.187. Values summary

Name	Summary
<b>disk</b>	The image is a disk format that can be used as a virtual machine's disk.
<b>floppy</b>	The image is a floppy disk that can be attached to a virtual machine, for example to install the VirtIO drivers in Windows.
<b>iso</b>	The image is a `.

### 7.138.1. iso

The image is a **.iso** file that can be used as a CD-ROM to boot and install a virtual machine.

## 7.139. IMAGETRANSFER STRUCT

This type contains information regarding an image transfer being performed.

Table 7.188. Attributes summary

Name	Type	Summary
<b>active</b>	<a href="#">Boolean</a>	Indicates whether there's at least one active session for this transfer, i.e there's at least one live transfer session between the client and the daemon.
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>direction</b>	<a href="#">ImageTransferDirection</a>	The direction indicates whether the transfer is sending image data ( <b>upload</b> ) or receiving image data ( <b>download</b> ).
<b>format</b>	<a href="#">DiskFormat</a>	The format of the data sent during upload or received during download.
<b>id</b>	<a href="#">String</a>	A unique identifier.

Name	Type	Summary
<b>inactivity_timeout</b>	Integer	The timeout in seconds of client inactivity, after which the transfer is aborted by the Red Hat Virtualization Manager.
<b>name</b>	String	A human-readable name in plain text.
<b>phase</b>	ImageTransferPhase	The current phase of the image transfer in progress.
<b>proxy_url</b>	String	The URL of the proxy server that the user inputs or outputs to.
<b>shallow</b>	Boolean	Download only the specified image instead of the entire image chain.
<b>timeout_policy</b>	ImageTransferTimeoutPolicy	Timeout policy determines how the system handles the transfer when a client is idle for more than inactivityTimeout.
<b>transfer_url</b>	String	The URL of the daemon server that the user can input or output to directly.
<b>transferred</b>	Integer	Indicates the amount of transferred bytes.

### 7.139.1. direction

The direction indicates whether the transfer is sending image data (**upload**) or receiving image data (**download**).

If a direction is not set during an addition of a new transfer, The default direction for the transfer will be **upload**.

### 7.139.2. format

The format of the data sent during upload or received during download. If not specified, defaults to disk's format.

### 7.139.3. inactivity\_timeout

The timeout in seconds of client inactivity, after which the transfer is aborted by the Red Hat Virtualization Manager. To disable the inactivity timeout specify '0'. If not specified, the value is defaulted to the **engine-config** value: TransferImageClientInactivityTimeoutInSeconds.

### 7.139.4. phase

The current phase of the image transfer in progress. Each transfer needs a managed session, which must be opened for the user to input or output an image. Please refer to [image transfer](#) for further documentation.

### 7.139.5. proxy\_url

The URL of the proxy server that the user inputs or outputs to. This attribute is available only if the image transfer is in the [transferring](#) phase. See **phase** for details.

### 7.139.6. shallow

Download only the specified image instead of the entire image chain.

If true, when using `format="raw"` and `direction="download"`, the transfer includes data only from the specified disk snapshot, and unallocated areas are reported as holes. By default, the transfer includes data from all disk snapshots.

When specifying a disk snapshot, the transfer includes only data for the specified disk snapshot. When specifying a disk, the transfer includes only data from the active disk snapshot.

This parameter has no effect when not using `format="raw"` or for `direction="upload"`.

Example: Downloading a single snapshot:

```
<image_transfer>
  <snapshot id="2fb24fa2-a5db-446b-b733-4654661cd56d"/>
  <direction>download</direction>
  <format>raw</format>
  <shallow>true</shallow>
</image_transfer>
```

To download the active snapshot disk image (which is not accessible as a disk snapshot), specify the disk:

```
<image_transfer>
  <disk id="ff6be46d-ef5d-41d6-835c-4a68e8956b00"/>
  <direction>download</direction>
  <format>raw</format>
  <shallow>true</shallow>
</image_transfer>
```

In both cases you can now download a qcow2 image using imageio client:

```
from ovirt_imageio import client

client.download(
    transfer.transfer_url,
    "51275e7d-42e9-491f-9d65-b9211c897eac",
    backing_file="07c0ccac-0845-4665-9097-d0a3b16cf43b",
    backing_format="qcow2")
```

### 7.139.7. transfer\_url

The URL of the daemon server that the user can input or output to directly.

This is as an alternative to the **proxy\_url**. I.e. if the client has access to the host machine, it could bypass the proxy and transfer directly to the host, potentially improving the throughput performance. This attribute is available only if the image transfer is in the [transferring](#) phase. See **phase** for details.

#### Table 7.189. Links summary

Name	Type	Summary
<b>backup</b>	<a href="#">Backup</a>	The backup associated with the image transfer.
<b>disk</b>	<a href="#">Disk</a>	The disk which is targeted for input or output.
<b>host</b>	<a href="#">Host</a>	The host which will be used to write to the image which is targeted for input or output.
<b>image</b>	<a href="#">Image</a>	The image which is targeted for input or output.
<b>snapshot</b>	<a href="#">DiskSnapshot</a>	The disk snapshot which is targeted for input or output.

### 7.139.8. backup

The backup associated with the image transfer. Specify when initiating an image transfer for a disk that is part of a backup.

### 7.139.9. host

The host which will be used to write to the image which is targeted for input or output. If not specified, an active host will be randomly selected from the data center.

### 7.139.10. image

The image which is targeted for input or output.



#### IMPORTANT

This attribute is deprecated since version 4.2 of the engine. Use the **disk** or **snapshot** attributes instead.

## 7.140. IMAGETRANSFERDIRECTION ENUM

The [image transfer](#) direction for a transfer.

When adding a new transfer, the user can choose whether the transfer will be to an image, choosing **upload**, or to transfer from an image- choosing **download** as an ImageTransferDirection.

Please refer to [image transfer](#) for further documentation.

Table 7.190. Values summary

Name	Summary
<b>download</b>	The user must choose <b>download</b> when he/she wants to stream data from an image.
<b>upload</b>	The user can choose <b>upload</b> when he/she wants to stream data to an image.

## 7.141. IMAGETRANSFERPHASE ENUM

A list of possible phases for an [image transfer](#) entity. Each of these values defines a specific point in a transfer flow.

Please refer to [image transfer](#) for more information.

Table 7.191. Values summary

Name	Summary
<b>cancelled</b>	This phase will be set as a result of the user cancelling the transfer.
<b>cancelled_system</b>	This phase will be set as a result of the system cancelling the transfer.
<b>cancelled_user</b>	This phase will be set as a result of the user cancelling the transfer.
<b>finalizing_cleanup</b>	This phase indicates that the user cancelled the transfer, and necessary cleanup is being done.
<b>finalizing_failure</b>	This phase can only be set in the Administration Portal, and indicates that there was an error during the transfer, and it is being finalized with a failure.
<b>finalizing_success</b>	This phase will be set when the user calls <a href="#">finalize</a> .
<b>finished_cleanup</b>	This phase indicates that the user cancelled the transfer, and necessary cleanup is done.
<b>finished_failure</b>	Indicates that the targeted image failed the verification, and cannot be used.
<b>finished_success</b>	Indicates that the transfer session was successfully closed, and the targeted image was verified and ready to be used.
<b>initializing</b>	The initial phase of an image transfer.
<b>paused_system</b>	This phase means the session timed out, or some other error occurred with this transfer; for example ovirt-imageio is not running in the selected host.
<b>paused_user</b>	This phase is a result of a pause call by the user, using <a href="#">pause</a> .
<b>resuming</b>	The phase where the transfer has been resumed by the client calling <a href="#">resume</a> .
<b>transferring</b>	The phase where the transfer session is open, and the client can input or output the desired image using the preferred tools.
<b>unknown</b>	An unknown phase.

### 7.141.1. cancelled

This phase will be set as a result of the user cancelling the transfer. The cancellation can only be performed in the Administration Portal.

### 7.141.2. finalizing\_success

This phase will be set when the user calls [finalize](#). Calling finalize is essential to finish the transfer session, and finish using the targeted image. After finalizing, the phase will be changed to **finished\_success** or **finished\_failure**.

Refer to [image transfer](#) for more information.

### 7.141.3. finished\_failure

Indicates that the targeted image failed the verification, and cannot be used. After reaching this phase, the image transfer entity will be deleted, and the targeted image will be set to illegal. System cancelling the transfer will also result in this.

### 7.141.4. finished\_success

Indicates that the transfer session was successfully closed, and the targeted image was verified and ready to be used. After reaching this phase, the image transfer entity will be deleted.

### 7.141.5. initializing

The initial phase of an image transfer. It is set while the transfer session is establishing. Once the session is established, the phase will be changed to **transferring**

### 7.141.6. paused\_system

This phase means the session timed out, or some other error occurred with this transfer; for example ovirt-imageio is not running in the selected host. To resume the session, the client should call [resume](#). After resuming, the phase will change to **resuming**.

### 7.141.7. resuming

The phase where the transfer has been resumed by the client calling [resume](#). Resuming starts a new session, and after calling it, the phase will be changed to **transferring**, or **paused\_system** in case of a failure.

### 7.141.8. unknown

An unknown phase. This will only be set in cases of unpredictable errors.

## 7.142. IMAGETRANSFERTIMEOUTPOLICY ENUM

The [image transfer](#) timeout policy.

Define how the system handles a transfer when the client is inactive for `inactivityTimeout` seconds.

Please refer to [image transfer](#) for further documentation.

Table 7.192. Values summary

Name	Summary
<b>cancel</b>	Cancel the transfer and unlock the disk.
<b>legacy</b>	LEGACY policy will preserve the legacy functionality which is the default.
<b>pause</b>	Pause the transfer.

### 7.142.1. cancel

Cancel the transfer and unlock the disk. For image transfer using upload direction, the disk is deleted.

### 7.142.2. legacy

LEGACY policy will preserve the legacy functionality which is the default. The default behaviour will cancel the transfer if the direction is download, and pause it if its upload.

### 7.142.3. pause

Pause the transfer. The transfer can be resumed or canceled by the user. The disk will remain locked while the transfer is paused.

## 7.143. INHERITABLEBOOLEAN ENUM

Enum representing the boolean value that can be either set, or inherited from a higher level. The inheritance order is virtual machine → cluster → engine-config.

Table 7.193. Values summary

Name	Summary
<b>false</b>	Set the value to false on this level.
<b>inherit</b>	Inherit the value from higher level.
<b>true</b>	Set the value to true on this level.

## 7.144. INITIALIZATION STRUCT

Table 7.194. Attributes summary

Name	Type	Summary
<b>active_directory_ou</b>	String	

Name	Type	Summary
<b>authorized_ssh_keys</b>	String	
<b>cloud_init</b>	CloudInit	Deprecated attribute to specify <i>cloud-init</i> configuration.
<b>cloud_init_network_protocol</b>	CloudInitNetworkProtocol	Attribute specifying the cloud-init protocol to use for formatting the cloud-init network parameters.
<b>configuration</b>	Configuration	
<b>custom_script</b>	String	
<b>dns_search</b>	String	
<b>dns_servers</b>	String	
<b>domain</b>	String	
<b>host_name</b>	String	
<b>input_locale</b>	String	
<b>nic_configurations</b>	NicConfiguration[]	
<b>org_name</b>	String	
<b>regenerate_ids</b>	Boolean	
<b>regenerate_ssh_keys</b>	Boolean	
<b>root_password</b>	String	
<b>system_locale</b>	String	
<b>timezone</b>	String	
<b>ui_language</b>	String	
<b>user_locale</b>	String	
<b>user_name</b>	String	

Name	Type	Summary
<b>windows_licens e_key</b>	String	

### 7.144.1. cloud\_init

Deprecated attribute to specify *cloud-init* configuration.

This attribute and the [CloudInit](#) type have been deprecated and will be removed in the future. To specify the *cloud-init* configuration, use the attributes inside the [Initialization](#) type. The mapping between the attributes of these two types are as follows:

CloudInit	Initialization
<b>authorized_keys</b>	<b>authorized_ssh_keys</b>
<b>dns.search_domains</b>	<b>dns_search</b>
<b>dns.servers</b>	<b>dns_servers</b>
<b>files</b>	<b>custom_script</b>
<b>host</b>	<b>host_name</b>
<b>network_configuration.nics</b>	<b>nic_configurations</b>
<b>regenerate_ssh_keys</b>	<b>regenerate_ssh_keys</b>
<b>timezone</b>	<b>timezone</b>
<b>users</b>	<b>user_name &amp; root_password</b>

For more details on how to use *cloud-init* see the examples in [Python](#) and [Java](#).

### 7.144.2. cloud\_init\_network\_protocol

Attribute specifying the cloud-init protocol to use for formatting the cloud-init network parameters. If omitted, a default value is used, as described in the [CloudInitNetworkProtocol](#)

## 7.145. INSTANCETYPE STRUCT

Describes the hardware configuration of virtual machines.

For example **medium** instance type includes 1 virtual CPU and 4 GiB of memory. It is a top-level entity (e.g. not bound to any data center or cluster). The attributes that are used for instance types and are common to virtual machine and template types are:

- **console**

- **cpu**
- **custom\_cpu\_model**
- **custom\_emulated\_machine**
- **display**
- **high\_availability**
- **io**
- **memory**
- **memory\_policy**
- **migration**
- **migration\_downtime**
- **os**
- **rng\_device**
- **soundcard\_enabled**
- **usb**
- **virtio\_scsi**

When creating a virtual machine from both an instance type and a template, the virtual machine will inherit the hardware configurations from the instance type



#### NOTE

An instance type inherits its attributes from the template entity although most template attributes are not used in instance types.

Table 7.195. Attributes summary

Name	Type	Summary
<b>auto_pinning_policy</b>	<a href="#">AutoPinningPolicy</a>	Specifies if and how the auto CPU and NUMA configuration is applied.
<b>bios</b>	<a href="#">Bios</a>	Reference to virtual machine's BIOS configuration.
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>console</b>	<a href="#">Console</a>	Console configured for this virtual machine.
<b>cpu</b>	<a href="#">Cpu</a>	The configuration of the virtual machine CPU.

Name	Type	Summary
<b>cpu_pinning_policy</b>	<a href="#">CpuPinningPolicy</a>	Specifies if and how the CPU and NUMA configuration is applied.
<b>cpu_shares</b>	<a href="#">Integer</a>	
<b>creation_time</b>	<a href="#">Date</a>	The virtual machine creation date.
<b>custom_compatibility_version</b>	<a href="#">Version</a>	Virtual machine custom compatibility version.
<b>custom_cpu_model</b>	<a href="#">String</a>	
<b>custom_emulated_machine</b>	<a href="#">String</a>	
<b>custom_properties</b>	<a href="#">CustomProperty[]</a>	Properties sent to VDSM to configure various hooks.
<b>delete_protected</b>	<a href="#">Boolean</a>	If <b>true</b> , the virtual machine cannot be deleted.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>display</b>	<a href="#">Display</a>	The virtual machine display configuration.
<b>domain</b>	<a href="#">Domain</a>	Domain configured for this virtual machine.
<b>high_availability</b>	<a href="#">HighAvailability</a>	The virtual machine high availability configuration.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>initialization</b>	<a href="#">Initialization</a>	Reference to the virtual machine's initialization configuration.
<b>io</b>	<a href="#">Io</a>	For performance tuning of IO threading.
<b>large_icon</b>	<a href="#">Icon</a>	Virtual machine's large icon.
<b>lease</b>	<a href="#">StorageDomainLease</a>	Reference to the storage domain this virtual machine/template lease reside on.
<b>memory</b>	<a href="#">Integer</a>	The virtual machine's memory, in bytes.
<b>memory_policy</b>	<a href="#">MemoryPolicy</a>	Reference to virtual machine's memory management configuration.

Name	Type	Summary
<b>migration</b>	<a href="#">MigrationOptions</a>	Reference to configuration of migration of a running virtual machine to another host.
<b>migration_down_time</b>	<a href="#">Integer</a>	Maximum time the virtual machine can be non responsive during its live migration to another host in ms.
<b>multi_queues_enabled</b>	<a href="#">Boolean</a>	If <b>true</b> , each virtual interface will get the optimal number of queues, depending on the available virtual Cpus.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>origin</b>	<a href="#">String</a>	The origin of this virtual machine.
<b>os</b>	<a href="#">OperatingSystem</a>	Operating system type installed on the virtual machine.
<b>placement_policy</b>	<a href="#">VmPlacementPolicy</a>	The configuration of the virtual machine's placement policy.
<b>rng_device</b>	<a href="#">RngDevice</a>	Random Number Generator device configuration for this virtual machine.
<b>serial_number</b>	<a href="#">SerialNumber</a>	Virtual machine's serial number in a cluster.
<b>small_icon</b>	<a href="#">Icon</a>	Virtual machine's small icon.
<b>soundcard_enabled</b>	<a href="#">Boolean</a>	If <b>true</b> , the sound card is added to the virtual machine.
<b>sso</b>	<a href="#">Sso</a>	Reference to the Single Sign On configuration this virtual machine is configured for.
<b>start_paused</b>	<a href="#">Boolean</a>	If <b>true</b> , the virtual machine will be initially in 'paused' state after start.
<b>stateless</b>	<a href="#">Boolean</a>	If <b>true</b> , the virtual machine is stateless - it's state (disks) are rolled-back after shutdown.
<b>status</b>	<a href="#">TemplateStatus</a>	The status of the template.
<b>storage_error_resume_behavior</b>	<a href="#">VmStorageErrorResumeBehaviour</a>	Determines how the virtual machine will be resumed after storage error.

Name	Type	Summary
<b>time_zone</b>	TimeZone	The virtual machine's time zone set by oVirt.
<b>tpm_enabled</b>	Boolean	If <b>true</b> , a TPM device is added to the virtual machine.
<b>tunnel_migration</b>	Boolean	If <b>true</b> , the network data transfer will be encrypted during virtual machine live migration.
<b>type</b>	VmType	Determines whether the virtual machine is optimized for desktop or server.
<b>usb</b>	Usb	Configuration of USB devices for this virtual machine (count, type).
<b>version</b>	TemplateVersion	Indicates whether this is the base version or a sub-version of another template.
<b>virtio_scsi</b>	VirtioScsi	Reference to VirtIO SCSI configuration.
<b>virtio_scsi_multi_queues</b>	Integer	Number of queues for a Virtio-SCSI controller this field requires virtioScsiMultiQueuesEnabled to be true see virtioScsiMultiQueuesEnabled for more info
<b>virtio_scsi_multi_queues_enabled</b>	Boolean	If <b>true</b> , the Virtio-SCSI devices will obtain a number of multiple queues depending on the available virtual Cpus and disks, or according to the specified virtioScsiMultiQueues.
<b>vm</b>	Vm	The virtual machine configuration associated with this template.

### 7.145.1. auto\_pinning\_policy

Specifies if and how the auto CPU and NUMA configuration is applied.



#### IMPORTANT

Since version 4.5 of the engine this operation is deprecated, and preserved only for backwards compatibility. It might be removed in the future. Please use CpuPinningPolicy instead.

### 7.145.2. cpu

The configuration of the virtual machine CPU.

The socket configuration can be updated without rebooting the virtual machine. The cores and the threads require a reboot.

For example, to change the number of sockets to 4 immediately, and the number of cores and threads to 2 after reboot, send the following request:

```
PUT /ovirt-engine/api/vms/123
```

With a request body:

```
<vm>
  <cpu>
    <topology>
      <sockets>4</sockets>
      <cores>2</cores>
      <threads>2</threads>
    </topology>
  </cpu>
</vm>
```

### 7.145.3. cpu\_pinning\_policy

Specifies if and how the CPU and NUMA configuration is applied. When not specified the previous behavior of CPU pinning string will determine CpuPinningPolicy to None or Manual.

### 7.145.4. custom\_compatibility\_version

Virtual machine custom compatibility version.

Enables a virtual machine to be customized to its own compatibility version. If **custom\_compatibility\_version** is set, it overrides the cluster's compatibility version for this particular virtual machine.

The compatibility version of a virtual machine is limited by the data center the virtual machine resides in, and is checked against capabilities of the host the virtual machine is planned to run on.

### 7.145.5. high\_availability

The virtual machine high availability configuration. If set, the virtual machine will be automatically restarted when it unexpectedly goes down.

### 7.145.6. initialization

Reference to the virtual machine's initialization configuration.



#### NOTE

Since Red Hat Virtualization 4.1.8 this property can be cleared by sending an empty tag.

For example, to clear the **initialization** attribute send a request like this:

```
PUT /ovirt-engine/api/vms/123
```

With a request body like this:

```
<vm>
  <initialization/>
</vm>
```

The response to such a request, and requests with the header **All-Content: true** will still contain this attribute.

### 7.145.7. large\_icon

Virtual machine's large icon. Either set by user or refers to image set according to operating system.

### 7.145.8. lease

Reference to the storage domain this virtual machine/template lease reside on.

A virtual machine running with a lease requires checking while running that the lease is not taken by another host, preventing another instance of this virtual machine from running on another host. This provides protection against split-brain in highly available virtual machines. A template can also have a storage domain defined for a lease in order to have the virtual machines created from this template to be preconfigured with this storage domain as the location of the leases.

### 7.145.9. memory

The virtual machine's memory, in bytes.

For example, to update a virtual machine to contain 1 Gibibyte (GiB) of memory, send the following request:

```
PUT /ovirt-engine/api/vms/123
```

With the following request body:

```
<vm>
  <memory>1073741824</memory>
</vm>
```

Memory hot plug is supported from Red Hat Virtualization 3.6 onwards. You can use the example above to increase memory while the virtual machine is in state **up**. The size increment must be dividable by the value of the **HotPlugMemoryBlockSizeMb** configuration value (256 MiB by default). If the memory size increment is not dividable by this value, the memory size change is only stored to next run configuration. Each successful memory hot plug operation creates one or two new memory devices.

Memory hot unplug is supported since Red Hat Virtualization 4.2 onwards. Memory hot unplug can only be performed when the virtual machine is in state **up**. Only previously hot plugged memory devices can be removed by the hot unplug operation. The requested memory decrement is rounded down to match sizes of a combination of previously hot plugged memory devices. The requested memory value is stored to next run configuration without rounding.



#### NOTE

Memory in the example is converted to bytes using the following formula:  
 $1 \text{ GiB} = 2^{30} \text{ bytes} = 1073741824 \text{ bytes}.$



#### NOTE

Red Hat Virtualization Manager internally rounds values down to whole MiBs ( $1 \text{ MiB} = 2^{20}$  bytes)

### 7.145.10. migration

Reference to configuration of migration of a running virtual machine to another host.



#### NOTE

API for querying migration policy by ID returned by this method is not implemented yet. Use **/ovirt-engine/api/options/MigrationPolicies** to get a list of all migration policies with their IDs.

### 7.145.11. migration\_downtime

Maximum time the virtual machine can be non responsive during its live migration to another host in ms.

Set either explicitly for the virtual machine or by **engine-config -s DefaultMaximumMigrationDowntime=[value]**

### 7.145.12. origin

The origin of this virtual machine.

Possible values:

- **ovirt**
- **rhev**
- **vmware**
- **xen**
- **external**
- **hosted\_engine**
- **managed\_hosted\_engine**
- **kvm**
- **physical\_machine**
- **hyperv**

### 7.145.13. placement\_policy

The configuration of the virtual machine's placement policy.

This configuration can be updated to pin a virtual machine to one or more hosts.



#### NOTE

Virtual machines that are pinned to multiple hosts cannot be live migrated, but in the event of a host failure, any virtual machine configured to be highly available is automatically restarted on one of the other hosts to which the virtual machine is pinned.

For example, to pin a virtual machine to two hosts, send the following request:

```
PUT /api/vms/123
```

With a request body like this:

```
<vm>
  <high_availability>
    <enabled>true</enabled>
    <priority>1</priority>
  </high_availability>
  <placement_policy>
    <hosts>
      <host>
        <name>Host1</name>
      </host>
      <host>
        <name>Host2</name>
      </host>
    </hosts>
    <affinity>pinned</affinity>
  </placement_policy>
</vm>
```

#### 7.145.14. small\_icon

Virtual machine's small icon. Either set by user or refers to image set according to operating system.

#### 7.145.15. sso

Reference to the Single Sign On configuration this virtual machine is configured for. The user can be automatically signed in the virtual machine's operating system when console is opened.

#### 7.145.16. tpm\_enabled

If **true**, a TPM device is added to the virtual machine. By default the value is **false**. This property is only visible when fetching if "All-Content=true" header is set.

Table 7.196. Links summary

Name	Type	Summary
<b>cdroms</b>	<a href="#">Cdrom[]</a>	Reference to the CD-ROM devices attached to the template.
<b>cluster</b>	<a href="#">Cluster</a>	Reference to cluster the virtual machine belongs to.
<b>cpu_profile</b>	<a href="#">CpuProfile</a>	Reference to CPU profile used by this virtual machine.
<b>disk_attachments</b>	<a href="#">DiskAttachment[]</a>	Reference to the disks attached to the template.

Name	Type	Summary
<b>graphics_consoles</b>	<a href="#">GraphicsConsole[]</a>	Reference to the graphic consoles attached to the template.
<b>mediated_devices</b>	<a href="#">VmMediatedDevice[]</a>	Mediated devices configuration.
<b>nics</b>	<a href="#">Nic[]</a>	Reference to the network interfaces attached to the template.
<b>permissions</b>	<a href="#">Permission[]</a>	Reference to the user permissions attached to the template.
<b>quota</b>	<a href="#">Quota</a>	Reference to quota configuration set for this virtual machine.
<b>storage_domain</b>	<a href="#">StorageDomain</a>	Reference to storage domain the virtual machine belongs to.
<b>tags</b>	<a href="#">Tag[]</a>	Reference to the tags attached to the template.
<b>watchdogs</b>	<a href="#">Watchdog[]</a>	Reference to the watchdog devices attached to the template.

## 7.146. IO STRUCT

Table 7.197. Attributes summary

Name	Type	Summary
<b>threads</b>	<a href="#">Integer</a>	

## 7.147. IP STRUCT

Represents the IP configuration of a network interface.

Table 7.198. Attributes summary

Name	Type	Summary
<b>address</b>	<a href="#">String</a>	The text representation of the IP address.
<b>gateway</b>	<a href="#">String</a>	The address of the default gateway.
<b>netmask</b>	<a href="#">String</a>	The network mask.
<b>version</b>	<a href="#">IpVersion</a>	The version of the IP protocol.

### 7.147.1. address

The text representation of the IP address.

For example, an IPv4 address will be represented as follows:

```
<ip>
  <address>192.168.0.1</address>
  ...
</ip>
```

An IPv6 address will be represented as follows:

```
<ip>
  <address>2620:52:0:20f0:4216:7eff:feaa:1b50</address>
  ...
</ip>
```

### 7.147.2. netmask

The network mask.

For IPv6 addresses the value is an integer in the range of 0-128, which represents the subnet prefix.

### 7.147.3. version

The version of the IP protocol.



#### NOTE

From version 4.1 of the Manager this attribute will be optional, and when a value is not provided, it will be inferred from the value of the **address** attribute.

## 7.148. IPADDRESSASSIGNMENT STRUCT

Represents an IP address assignment for a network device.

For a static boot protocol assignment, subnet mask and IP address (and optionally default gateway) must be provided in the IP configuration.

Table 7.199. Attributes summary

Name	Type	Summary
<b>assignment_method</b>	<a href="#">BootProtocol</a>	Sets the boot protocol used to assign the IP configuration for a network device.
<b>ip</b>	<a href="#">Ip</a>	Sets the IP configuration for a network device.

## 7.149. IPVERSION ENUM

Defines the values for the IP protocol version.

Table 7.200. Values summary

Name	Summary
<b>v4</b>	IPv4.
<b>v6</b>	IPv6.

## 7.150. ISCSIBOND STRUCT

Table 7.201. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.

Table 7.202. Links summary

Name	Type	Summary
<b>data_center</b>	<a href="#">DataCenter</a>	
<b>networks</b>	<a href="#">Network[]</a>	
<b>storage_connections</b>	<a href="#">StorageConnection[]</a>	

## 7.151. ISCSIDetails STRUCT

Table 7.203. Attributes summary

Name	Type	Summary
<b>address</b>	<a href="#">String</a>	
<b>disk_id</b>	<a href="#">String</a>	
<b>initiator</b>	<a href="#">String</a>	
<b>lun_mapping</b>	<a href="#">Integer</a>	
<b>password</b>	<a href="#">String</a>	

Name	Type	Summary
<b>paths</b>	Integer	
<b>port</b>	Integer	
<b>portal</b>	String	
<b>product_id</b>	String	
<b>serial</b>	String	
<b>size</b>	Integer	
<b>status</b>	String	
<b>storage_domain_id</b>	String	
<b>target</b>	String	
<b>username</b>	String	
<b>vendor_id</b>	String	
<b>volume_group_id</b>	String	

## 7.152. JOB STRUCT

Represents a job, which monitors execution of a flow in the system. A job can contain multiple steps in a hierarchic structure. The steps can be processed in parallel, depends on the implementation of the flow.

Table 7.204. Attributes summary

Name	Type	Summary
<b>auto_cleared</b>	Boolean	Indicates if the job should be cleared automatically after it was completed by the system.
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>end_time</b>	Date	The end time of the job.
<b>external</b>	Boolean	Indicates if the job is originated by an external system.

Name	Type	Summary
<b>id</b>	String	A unique identifier.
<b>last_updated</b>	Date	The last update date of the job.
<b>name</b>	String	A human-readable name in plain text.
<b>start_time</b>	Date	The start time of the job.
<b>status</b>	JobStatus	The status of the job.

### 7.152.1. external

Indicates if the job is originated by an external system. External jobs are managed externally, by the creator of the job.

Table 7.205. Links summary

Name	Type	Summary
<b>owner</b>	User	The user who is the owner of the job.
<b>steps</b>	Step[]	The steps of the job.

## 7.153. JOBSTATUS ENUM

Represents the status of the job.

Table 7.206. Values summary

Name	Summary
<b>aborted</b>	The aborted job status.
<b>failed</b>	The failed job status.
<b>finished</b>	The finished job status.
<b>started</b>	The started job status.
<b>unknown</b>	The unknown job status.

### 7.153.1. aborted

The aborted job status. This status is applicable for an external job that was forcibly aborted.

### 7.153.2. finished

The finished job status. This status describes a completed job execution.

### 7.153.3. started

The started job status. This status represents a job which is currently being executed.

### 7.153.4. unknown

The unknown job status. This status represents jobs which their resolution is not known, i.e. jobs that were executed before the system was unexpectedly restarted.

## 7.154. KATELLOERRATUM STRUCT

Type representing a Katello erratum.

Table 7.207. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>issued</b>	Date	The date when the Katello erratum was issued.
<b>name</b>	String	A human-readable name in plain text.
<b>packages</b>	Package[]	The list of packages which solve the issue reported by the Katello erratum.
<b>severity</b>	String	The severity of the Katello erratum.
<b>solution</b>	String	The solution for the issue described by the Katello erratum.
<b>summary</b>	String	The summary of the Katello erratum.
<b>title</b>	String	The title of the Katello erratum.
<b>type</b>	String	The type of the Katello erratum.

### 7.154.1. severity

The severity of the Katello erratum.

The supported severities are **moderate**, **important** or **critical**.

### 7.154.2. type

The type of the Katello erratum.

The supported types are **bugfix**, **enhancement** or **security**.

Table 7.208. Links summary

Name	Type	Summary
<b>host</b>	<a href="#">Host</a>	Reference to the host that the Katello erratum is assigned to.
<b>vm</b>	<a href="#">Vm</a>	Reference to the virtual machine that the Katello erratum is assigned to.

## 7.155. KDUMPSTATUS ENUM

Table 7.209. Values summary

Name	Summary
<b>disabled</b>	
<b>enabled</b>	
<b>unknown</b>	

## 7.156. KERNEL STRUCT

Table 7.210. Attributes summary

Name	Type	Summary
<b>version</b>	<a href="#">Version</a>	

## 7.157. KSM STRUCT

Table 7.211. Attributes summary

Name	Type	Summary
<b>enabled</b>	<a href="#">Boolean</a>	
<b>merge_across_nodes</b>	<a href="#">Boolean</a>	

## 7.158. LINKLAYERDISCOVERYPROTOCOLELEMENT STRUCT

Represents an information element received by Link Layer Discovery Protocol (LLDP). IEEE 802.1AB defines type, length, value (TLV) as a "short, variable length encoding of an information element". This type represents such an information element.

The attribute **name** is a human-readable string used to describe what the value is about, and may not be unique. The name is redundant, because it could be created from **type** and the optional **oui** and **subtype**. The purpose of **name** is to simplify the reading of the information element. The **name** of a property is exactly the same string which is used in IEEE 802.1AB chapter 8.

Organizationally-specific information elements have the **type** of **127** and the attributes **oui** and **subtype**.

For example, the XML representation of an information element may look like this:

```
<link_layer_discovery_protocol_element>
  <name>Port VLAN Id</name>
  <oui>32962</oui>
  <properties>
    <property>
      <name>vlan id</name>
      <value>488</value>
    </property>
    <property>
      <name>vlan name</name>
      <value>v2-0488-03-0505</value>
    </property>
  </properties>
  <subtype>3</subtype>
  <type>127</type>
</link_layer_discovery_protocol_element>
```

Table 7.212. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.
<b>oui</b>	Integer	The organizationally-unique identifier (OUI) encoded as an integer.
<b>properties</b>	Property[]	Represents structured data transported by the information element as a list of name/value pairs.
<b>subtype</b>	Integer	The organizationally-defined subtype encoded as an integer.

Name	Type	Summary
<b>type</b>	Integer	The type of the LinkLayerDiscoveryProtocolElement encoded as an integer.

### 7.158.1. oui

The organizationally-unique identifier (OUI) encoded as an integer. Only available if **type** is **127**.

### 7.158.2. subtype

The organizationally-defined subtype encoded as an integer. Only available if **type** is **127**.

## 7.159. LOGMAXMEMORYUSEDTHRESHOLDTYPE ENUM

Describes all maximum memory threshold types supported by the system.

Table 7.213. Values summary

Name	Summary
<b>absolute_value_in_mb</b>	Absolute value threshold type.
<b>percentage</b>	Percentage threshold type.

### 7.159.1. absolute\_value\_in\_mb

Absolute value threshold type.

When an absolute value is specified, an audit log event is logged if the free memory in MB falls below the value specified in **LogMaxMemoryUsedThreshold**.

### 7.159.2. percentage

Percentage threshold type.

When a percentage is specified, an audit log event is logged if the memory used is above the value specified in **LogMaxMemoryUsedThreshold**.

## 7.160. LOGSEVERITY ENUM

Enum representing a severity of an event.

Table 7.214. Values summary

Name	Summary
<b>alert</b>	Alert severity.

Name	Summary
<b>error</b>	Error severity.
<b>normal</b>	Normal severity.
<b>warning</b>	Warning severity.

### 7.160.1. alert

Alert severity. Used to specify a condition that requires an immediate attention.

### 7.160.2. error

Error severity. Used to specify that there is an error that needs to be examined.

### 7.160.3. normal

Normal severity. Used for information events.

### 7.160.4. warning

Warning severity. Used to warn something might be wrong.

## 7.161. LOGICALUNIT STRUCT

Table 7.215. Attributes summary

Name	Type	Summary
<b>address</b>	String	
<b>discard_max_size</b>	Integer	The maximum number of bytes that can be discarded by the logical unit's underlying storage in a single operation.
<b>discard_zeroes_data</b>	Boolean	True, if previously discarded blocks in the logical unit's underlying storage are read back as zeros.
<b>disk_id</b>	String	
<b>id</b>	String	
<b>lun_mapping</b>	Integer	
<b>password</b>	String	
<b>paths</b>	Integer	

Name	Type	Summary
<b>port</b>	Integer	
<b>portal</b>	String	
<b>product_id</b>	String	
<b>serial</b>	String	
<b>size</b>	Integer	
<b>status</b>	LunStatus	
<b>storage_domain_id</b>	String	
<b>target</b>	String	
<b>username</b>	String	
<b>vendor_id</b>	String	
<b>volume_group_id</b>	String	

### 7.161.1. discard\_max\_size

The maximum number of bytes that can be discarded by the logical unit's underlying storage in a single operation. A value of 0 means that the device does not support discard functionality.



#### NOTE

This is the software limit, and not the hardware limit, as noted in the [queue-sysfs documentation](#) for **discard\_max\_bytes**.

### 7.161.2. discard\_zeroes\_data

True, if previously discarded blocks in the logical unit's underlying storage are read back as zeros. For more information please see the [queue-sysfs documentation](#) for **discard\_zeroes\_data**.



#### IMPORTANT

Since version 4.2.1 of the system, the support for this attribute has been removed as the sysfs file, **discard\_zeroes\_data**, was deprecated in the kernel. It is preserved for backwards compatibility, but the value will always be **false**.

## 7.162. LUNSTATUS ENUM

Table 7.216. Values summary

Name	Summary
<b>free</b>	
<b>unusable</b>	
<b>used</b>	

### 7.163. MDEVTYPE STRUCT

Mediated device is a software device that allows to divide physical device's resources.

See [Libvirt-MDEV](#) for further details.

Table 7.217. Attributes summary

Name	Type	Summary
<b>available_instances</b>	<a href="#">Integer</a>	MDev type available instances count.
<b>description</b>	<a href="#">String</a>	MDev type description.
<b>human_readable_name</b>	<a href="#">String</a>	MDev type human readable name.
<b>name</b>	<a href="#">String</a>	MDev type name.

### 7.164. MAC STRUCT

Represents a MAC address of a virtual network interface.

Table 7.218. Attributes summary

Name	Type	Summary
<b>address</b>	<a href="#">String</a>	MAC address.

### 7.165. MACPOOL STRUCT

Represents a MAC address pool.

Example of an XML representation of a MAC address pool:

```
<mac_pool href="/ovirt-engine/api/macpools/123" id="123">
  <name>Default</name>
  <description>Default MAC pool</description>
```

```

<allow_duplicates>false</allow_duplicates>
<default_pool>true</default_pool>
<ranges>
  <range>
    <from>00:1A:4A:16:01:51</from>
    <to>00:1A:4A:16:01:E6</to>
  </range>
</ranges>
</mac_pool>

```

Table 7.219. Attributes summary

Name	Type	Summary
<b>allow_duplicates</b>	Boolean	Defines whether duplicate MAC addresses are permitted in the pool.
<b>comment</b>	String	Free text containing comments about this object.
<b>default_pool</b>	Boolean	Defines whether this is the default pool.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.
<b>ranges</b>	Range[]	Defines the range of MAC addresses for the pool.

### 7.165.1. allow\_duplicates

Defines whether duplicate MAC addresses are permitted in the pool. If not specified, defaults to **false**.

### 7.165.2. default\_pool

Defines whether this is the default pool. If not specified, defaults to **false**.

### 7.165.3. ranges

Defines the range of MAC addresses for the pool. Multiple ranges can be defined.

Table 7.220. Links summary

Name	Type	Summary
<b>permissions</b>	Permission[]	Returns a reference to the permissions that are associated with the MacPool.

## 7.166. MEMORYOVERCOMMIT STRUCT

Table 7.221. Attributes summary

Name	Type	Summary
<b>percent</b>	<a href="#">Integer</a>	

## 7.167. MEMORYPOLICY STRUCT

Logical grouping of memory-related properties of virtual machine-like entities.

Table 7.222. Attributes summary

Name	Type	Summary
<b>ballooning</b>	<a href="#">Boolean</a>	
<b>guaranteed</b>	<a href="#">Integer</a>	The amount of memory, in bytes, that is guaranteed to not be drained by the balloon mechanism.
<b>max</b>	<a href="#">Integer</a>	Maximum virtual machine memory, in bytes.
<b>over_commit</b>	<a href="#">MemoryOverCommit</a>	
<b>transparent_huge_pages</b>	<a href="#">TransparentHugePages</a>	

### 7.167.1. guaranteed

The amount of memory, in bytes, that is guaranteed to not be drained by the balloon mechanism.

The Red Hat Virtualization Manager internally rounds this value down to whole MiB (1MiB = 2<sup>20</sup> bytes).



#### NOTE

It can be updated while the virtual machine is running since Red Hat Virtualization 4.2 onwards, provided [memory](#) is updated in the same request as well, and the virtual machine is in state [up](#).

### 7.167.2. max

Maximum virtual machine memory, in bytes.

The user provides the value in bytes, and the Red Hat Virtualization Manager rounds the value down to the nearest lower MiB value.

For example, if the user enters a value of 1073741825 (1 GiB + 1 byte), then the Red Hat Virtualization Manager will truncate that value to the nearest lower MiB boundary: in this case 1073741824 (1 GiB).

## 7.168. MESSAGEBROKERTYPE ENUM

Deprecated Message Broker type.

Ignored, because the deployment of OpenStack Neutron agent is dropped since Red Hat Virtualization 4.4.0.

Table 7.223. Values summary

Name	Summary
<b>qp</b> id	
<b>rabbit_mq</b>	

## 7.169. METHOD STRUCT

Table 7.224. Attributes summary

Name	Type	Summary
<b>id</b>	<a href="#">SsoMethod</a>	

## 7.170. MIGRATEONERROR ENUM

Table 7.225. Values summary

Name	Summary
<b>do_not_migrate</b>	
<b>migrate</b>	
<b>migrate_highly_available</b>	

## 7.171. MIGRATIONBANDWIDTH STRUCT

Defines the bandwidth used by migration.

Table 7.226. Attributes summary

Name	Type	Summary
<b>assignment_method</b>	<a href="#">MigrationBandwidthAssignmentMethod</a>	The method used to assign the bandwidth.
<b>custom_value</b>	<a href="#">Integer</a>	Custom bandwidth in Mbps.

### 7.171.1. custom\_value

Custom bandwidth in Mbps. Will be applied only if the **assignmentMethod** attribute is **custom**.

## 7.172. MIGRATIONBANDWIDTHASSIGNMENTMETHOD ENUM

Defines how the migration bandwidth is assigned.

Table 7.227. Values summary

Name	Summary
<b>auto</b>	Takes the bandwidth from the Quality of Service if the Quality of Service is defined.
<b>custom</b>	Custom defined bandwidth in Mbit/s.
<b>hypervisor_default</b>	Takes the value as configured on the hypervisor.

### 7.172.1. auto

Takes the bandwidth from the Quality of Service if the Quality of Service is defined. If the Quality of Service is not defined the bandwidth is taken from the detected link speed being used. If nothing is detected, bandwidth falls back to the hypervisor\_default value.

## 7.173. MIGRATIONOPTIONS STRUCT

The type for migration options.

Table 7.228. Attributes summary

Name	Type	Summary
<b>auto_converge</b>	<a href="#">InheritableBoolean</a>	
<b>bandwidth</b>	<a href="#">MigrationBandwidth</a>	The bandwidth that is allowed to be used by the migration.
<b>compressed</b>	<a href="#">InheritableBoolean</a>	
<b>custom_parallel_migrations</b>	<a href="#">Integer</a>	Specifies how many parallel migration connections to use.
<b>encrypted</b>	<a href="#">InheritableBoolean</a>	Specifies whether the migration should be encrypted or not.
<b>parallel_migrations_policy</b>	<a href="#">ParallelMigrationsPolicy</a>	Specifies whether and how to use parallel migration connections.

### 7.173.1. custom\_parallel\_migrations

Specifies how many parallel migration connections to use. May be specified only when `ParallelMigrationsPolicy` is `CUSTOM`. The valid range of values is 2-255. The recommended range of values is 2-16.

Table 7.229. Links summary

Name	Type	Summary
<b>policy</b>	<a href="#">MigrationPolicy</a>	A reference to the migration policy, as defined using <b>engine-config</b> .

## 7.174. MIGRATIONPOLICY STRUCT

A policy describing how the migration is treated, such as convergence or how many parallel migrations are allowed.

Table 7.230. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.

## 7.175. NETWORK STRUCT

The type for a logical network.

An example of the JSON representation of a logical network:

```
{
  "network": [ {
    "data_center": {
      "href": "/ovirt-engine/api/datacenters/123",
      "id": "123"
    },
    "stp": "false",
    "mtu": "0",
    "usages": {
      "usage": [ "vm" ]
    },
    "name": "ovirtmgmt",
    "description": "Management Network",
    "href": "/ovirt-engine/api/networks/456",
    "id": "456",
    "link": [ {
      "href": "/ovirt-engine/api/networks/456/permissions",

```

```

    "rel" : "permissions"
  }, {
    "href" : "/ovirt-engine/api/networks/456/vnicprofiles",
    "rel" : "vnicprofiles"
  }, {
    "href" : "/ovirt-engine/api/networks/456/labels",
    "rel" : "labels"
  }
]
}
}
}

```

An example of the XML representation of the same logical network:

```

<network href="/ovirt-engine/api/networks/456" id="456">
  <name>ovirtmgmt</name>
  <description>Management Network</description>
  <link href="/ovirt-engine/api/networks/456/permissions" rel="permissions"/>
  <link href="/ovirt-engine/api/networks/456/vnicprofiles" rel="vnicprofiles"/>
  <link href="/ovirt-engine/api/networks/456/labels" rel="labels"/>
  <data_center href="/ovirt-engine/api/datacenters/123" id="123"/>
  <stp>false</stp>
  <mtu>0</mtu>
  <usages>
    <usage>vm</usage>
  </usages>
</network>

```

Table 7.231. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>display</b>	Boolean	Deprecated, 'usages' should be used to define network as a display network.
<b>dns_resolver_configuration</b>	DnsResolverConfiguration	The DNS resolver configuration will be reported when retrieving the network using GET.
<b>id</b>	String	A unique identifier.
<b>ip</b>	Ip	Deprecated, not in use.
<b>mtu</b>	Integer	Specifies the maximum transmission unit for the network.
<b>name</b>	String	A human-readable name in plain text.
<b>port_isolation</b>	Boolean	Defines whether communication between VMs running on the same host is blocked on this network.

Name	Type	Summary
<b>profile_required</b>	Boolean	Specifies whether upon creation of the network a virtual network interface profile should automatically be created.
<b>required</b>	Boolean	Defines whether the network is mandatory for all the hosts in the cluster.
<b>status</b>	NetworkStatus	The status of the network.
<b>stp</b>	Boolean	Specifies whether the spanning tree protocol is enabled for the network.
<b>usages</b>	NetworkUsage[]	Defines a set of usage elements for the network.
<b>vdsm_name</b>	String	The name of the network used on the host.
<b>vlan</b>	Vlan	A VLAN tag.

### 7.175.1. dns\_resolver\_configuration

The DNS resolver configuration will be reported when retrieving the network using GET. It is optional both when creating a new network or updating existing one.

### 7.175.2. port\_isolation

Defines whether communication between VMs running on the same host is blocked on this network. Applies only to VM networks. It is on the network administrator to ensure that the communication between multiple hosts is blocked. This attribute can be set only on network creation and cannot be edited. When the value is not set, communication between VMs running on the same host is allowed.

### 7.175.3. required

Defines whether the network is mandatory for all the hosts in the cluster. In case a 'required' **operational** network is omitted from a host, the host will be marked as **non\_operational**,

### 7.175.4. status

The status of the network. **non\_operational** if the network defined as 'required' and omitted from any active cluster host. **operational** otherwise.

### 7.175.5. usages

Defines a set of usage elements for the network.

For example, users can specify that the network is to be used for virtual machine traffic and also for display traffic with the **vm** and **display** values.

### 7.175.6. vdsm\_name

The name of the network used on the host. This alternative name is automatically generated by VDSM when the network name is found unsuitable to serve as a bridge name on the host. Unsuitable names contain spaces, special characters or are longer than 15 characters and are replaced with a UUID on the host. This parameter is read-only. Setting it will have no effect.

Table 7.232. Links summary

Name	Type	Summary
<b>cluster</b>	<a href="#">Cluster</a>	A reference to the cluster this network is attached to.
<b>data_center</b>	<a href="#">DataCenter</a>	A reference to the data center that the network is a member of.
<b>external_provider</b>	<a href="#">OpenStackNetworkProvider</a>	An optional reference to the <i>OpenStack</i> network provider on which the network is created.
<b>external_provider_physical_network</b>	<a href="#">Network</a>	An optional reference to a network that should be used for physical network access.
<b>network_labels</b>	<a href="#">NetworkLabel[]</a>	A reference to the labels assigned to the network.
<b>permissions</b>	<a href="#">Permission[]</a>	A reference to the permissions of the network.
<b>qos</b>	<a href="#">Qos</a>	Reference to quality of service.
<b>vnic_profiles</b>	<a href="#">VnicProfile[]</a>	A reference to the profiles of the network.

### 7.175.7. cluster

A reference to the cluster this network is attached to. Will be filled only if the network is accessed from the cluster level.

### 7.175.8. external\_provider

An optional reference to the *OpenStack* network provider on which the network is created.

If it is specified when a network is created, a matching *OpenStack* network will be also created.

### 7.175.9. external\_provider\_physical\_network

An optional reference to a network that should be used for physical network access. Valid only if **external\_provider** is specified.

## 7.176. NETWORKATTACHMENT STRUCT

Describes how a host connects to a network.

An XML representation of a network attachment on a host:

```
<network_attachment href="/ovirt-engine/api/hosts/123/nics/456/networkattachments/789" id="789">
```

```

<network href="/ovirt-engine/api/networks/234" id="234"/>
<host_nic href="/ovirt-engine/api/hosts/123/nics/123" id="123"/>
<in_sync>true</in_sync>
<ip_address_assignments>
  <ip_address_assignment>
    <assignment_method>static</assignment_method>
    <ip>
      <address>192.168.122.39</address>
      <gateway>192.168.122.1</gateway>
      <netmask>255.255.255.0</netmask>
      <version>v4</version>
    </ip>
  </ip_address_assignment>
</ip_address_assignments>
<reported_configurations>
  <reported_configuration>
    <name>mtu</name>
    <expected_value>1500</expected_value>
    <actual_value>1500</actual_value>
    <in_sync>true</in_sync>
  </reported_configuration>
  <reported_configuration>
    <name>bridged</name>
    <expected_value>true</expected_value>
    <actual_value>true</actual_value>
    <in_sync>true</in_sync>
  </reported_configuration>
  ...
</reported_configurations>
</network_attachment>

```

The network element, with either a **name** or an **id**, is required in order to attach a network to a network interface card (NIC).

For example, to attach a network to a host network interface card, send a request like this:

```
POST /ovirt-engine/api/hosts/123/nics/456/networkattachments
```

With a request body like this:

```

<networkattachment>
  <network id="234"/>
</networkattachment>

```

To attach a network to a host, send a request like this:

```
POST /ovirt-engine/api/hosts/123/networkattachments
```

With a request body like this:

```

<network_attachment>
  <network id="234"/>
  <host_nic id="456"/>
</network_attachment>

```

The **ip\_address\_assignments** and **properties** elements are updatable post-creation.

For example, to update a network attachment, send a request like this:

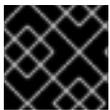
```
PUT /ovirt-engine/api/hosts/123/nics/456/networkattachments/789
```

With a request body like this:

```
<network_attachment>
  <ip_address_assignments>
    <ip_address_assignment>
      <assignment_method>static</assignment_method>
      <ip>
        <address>7.1.1.1</address>
        <gateway>7.1.1.2</gateway>
        <netmask>255.255.255.0</netmask>
        <version>v4</version>
      </ip>
    </ip_address_assignment>
  </ip_address_assignments>
</network_attachment>
```

To detach a network from the network interface card send a request like this:

```
DELETE /ovirt-engine/api/hosts/123/nics/456/networkattachments/789
```



### IMPORTANT

Changes to network attachment configuration must be explicitly committed.

An XML representation of a network attachment's **properties** sub-collection:

```
<network_attachment>
  <properties>
    <property>
      <name>bridge_opts</name>
      <value>
        forward_delay=1500 group_fwd_mask=0x0 multicast_snooping=1
      </value>
    </property>
  </properties>
  ...
</network_attachment>
```

Table 7.233. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.

Name	Type	Summary
<b>dns_resolver_configuration</b>	<a href="#">DnsResolverConfiguration</a>	DNS resolver configuration will be reported when retrieving the network attachment using GET.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>in_sync</b>	<a href="#">Boolean</a>	
<b>ip_address_assignments</b>	<a href="#">IpAddressAssignment[]</a>	The IP configuration of the network.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>properties</b>	<a href="#">Property[]</a>	Defines custom properties for the network configuration.
<b>reported_configurations</b>	<a href="#">ReportedConfiguration[]</a>	A read-only list of configuration properties.

### 7.176.1. dns\_resolver\_configuration

DNS resolver configuration will be reported when retrieving the network attachment using GET. It is optional when creating a new network attachment or updating an existing one.

### 7.176.2. properties

Defines custom properties for the network configuration.

Bridge options have the set name of `bridge_opts`. Separate multiple entries with a whitespace character. The following keys are valid for **bridge\_opts**:

Name	Default value
<b>forward_delay</b>	<b>1500</b>
<b>gc_timer</b>	<b>3765</b>
<b>group_addr</b>	<b>1:80:c2:0:0:0</b>
<b>group_fwd_mask</b>	<b>0x0</b>
<b>hash_elasticity</b>	<b>4</b>
<b>hash_max</b>	<b>512</b>
<b>hello_time</b>	<b>200</b>
<b>hello_timer</b>	<b>70</b>

Name	Default value
<b>max_age</b>	<b>2000</b>
<b>multicast_last_member_count</b>	<b>2</b>
<b>multicast_last_member_interval</b>	<b>100</b>
<b>multicast_membership_interval</b>	<b>26000</b>
<b>multicast_querier</b>	<b>0</b>
<b>multicast_querier_interval</b>	<b>25500</b>
<b>multicast_query_interval</b>	<b>13000</b>
<b>multicast_query_response_interval</b>	<b>1000</b>
<b>multicast_query_use_ifaddr</b>	<b>0</b>
<b>multicast_router</b>	<b>1</b>
<b>multicast_snooping</b>	<b>1</b>
<b>multicast_startup_query_count</b>	<b>2</b>
<b>multicast_startup_query_interval</b>	<b>3125</b>

Table 7.234. Links summary

Name	Type	Summary
<b>host</b>	<a href="#">Host</a>	
<b>host_nic</b>	<a href="#">HostNic</a>	A reference to the host network interface.
<b>network</b>	<a href="#">Network</a>	A reference to the network that the interface is attached to.
<b>qos</b>	<a href="#">Qos</a>	

## 7.177. NETWORKCONFIGURATION STRUCT

Table 7.235. Attributes summary

Name	Type	Summary
<b>dns</b>	Dns	
<b>nics</b>	Nic[]	

## 7.178. NETWORKFILTER STRUCT

Network filters filter packets sent to and from the virtual machine's NIC according to defined rules.

There are several types of network filters supported based on libvirt. For more details about the different network filters see [here](#).

The default Network Filter is based on network type and configuration. VM network's default filter is **vdsms-no-mac-spoof** if **EnableMACAntiSpoofingFilterRules** is True, otherwise the filter is not configured, for **OVN** networks the filter is not configured.

In addition to libvirt's network filters, there are two additional network filters: The first is called **vdsms-no-mac-spoofing** and is composed of **no-mac-spoofing** and **no-arp-mac-spoofing**. The second is called **ovirt-no-filter** and is used when no network filter is to be defined for the virtual machine's NIC. The **ovirt-no-filter** network filter is only used for internal implementation, and does not exist on the NICs.

This is an example of the XML representation:

```
<network_filter id="00000019-0019-0019-0019-00000000026c">
  <name>example-filter</name>
  <version>
    <major>4</major>
    <minor>0</minor>
    <build>-1</build>
    <revision>-1</revision>
  </version>
</network_filter>
```

If any part of the version is not present, it is represented by -1.

Table 7.236. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.
<b>version</b>	Version	The minimum supported version of a specific NetworkFilter.

### 7.178.1. version

The minimum supported version of a specific NetworkFilter. This is the version that the NetworkFilter was first introduced in.

## 7.179. NETWORKFILTERPARAMETER STRUCT

Parameter for the [network filter](#).

See [Libvirt-Filters](#) for further details. This is an example of the XML representation:

```
<network_filter_parameter id="123">
  <name>IP</name>
  <value>10.0.1.2</value>
</network_filter_parameter>
```

Table 7.237. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>value</b>	<a href="#">String</a>	Represents the value of the parameter.

Table 7.238. Links summary

Name	Type	Summary
<b>nic</b>	<a href="#">Nic</a>	The virtual machine NIC the parameter is associated to.

## 7.180. NETWORKLABEL STRUCT

Represents a label which can be added to a host network interface and to a network. The label binds the network to the host network interface by the label **id**.

Table 7.239. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.

Name	Type	Summary
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.

Table 7.240. Links summary

Name	Type	Summary
<b>host_nic</b>	<a href="#">HostNic</a>	A reference to the host network interface which contains this label.
<b>network</b>	<a href="#">Network</a>	A reference to the network which contains this label.

## 7.181. NETWORKPLUGINTYPE ENUM

Network plug-in type.

Specifies the provider driver implementation on the host.

Since version 4.2 of the Red Hat Virtualization Manager, this type has been deprecated in favour of the **external\_plugin\_type** attribute of the **OpenStackNetworkProvider** type.

Table 7.241. Values summary

Name	Summary
<b>open_vswitch</b>	Open vSwitch.

### 7.181.1. open\_vswitch

Open vSwitch.

Specifies that [Open vSwitch](#) based driver implementation should be used for this provider.

Since version 4.2 of the Red Hat Virtualization Manager, this value has been deprecated. Use the string **open\_vswitch** in the **OpenStackNetworkProvider.external\_plugin\_type** attribute instead.

## 7.182. NETWORKSTATUS ENUM

Table 7.242. Values summary

Name	Summary
<b>non_operational</b>	

Name	Summary
<b>operational</b>	

## 7.183. NETWORKUSAGE ENUM

This type indicates the purpose that the network is used for in the cluster.

Table 7.243. Values summary

Name	Summary
<b>default_route</b>	The default gateway and the DNS resolver configuration of the host will be taken from this network.
<b>display</b>	The network will be used for SPICE and VNC traffic.
<b>gluster</b>	The network will be used for Gluster (bricks) data traffic.
<b>management</b>	The network will be used for communication between the Red Hat Virtualization Manager and the nodes.
<b>migration</b>	The network will be used for virtual machine migration.
<b>vm</b>	

### 7.183.1. default\_route

The default gateway and the DNS resolver configuration of the host will be taken from this network.

If this network is attached to the host, then the DNS resolver configuration will be taken from the **dns\_resolver\_configuration** attribute of the network attachment. If there is no **dns\_resolver\_configuration** attribute in this network attachment, then they will be taken from the **dns\_resolver\_configuration** of the network itself. If **dns\_resolver\_configuration** attribute isn't present even there, DNS resolver configuration won't be set.

If you set this flag on a network, then the the default gateway for the host will be taken from the **gateway** attribute of the **ip\_address\_assignment** of the network attachment.

### 7.183.2. management

The network will be used for communication between the Red Hat Virtualization Manager and the nodes. This is the network where the ovirtmgmt bridge will be created.

## 7.184. NFSPROFILEDETAIL STRUCT

Table 7.244. Attributes summary

Name	Type	Summary
<b>nfs_server_ip</b>	String	
<b>profile_details</b>	ProfileDetail[]	

## 7.185. NFSVERSION ENUM

Table 7.245. Values summary

Name	Summary
<b>auto</b>	
<b>v3</b>	
<b>v4</b>	
<b>v4_0</b>	NFS 4.
<b>v4_1</b>	
<b>v4_2</b>	NFS 4.

### 7.185.1. v4\_0

NFS 4.0.

### 7.185.2. v4\_2

NFS 4.2.

## 7.186. NIC STRUCT

Represents a virtual machine NIC.

For example, the XML representation of a NIC will look like this:

```
<nic href="/ovirt-engine/api/vms/123/nics/456" id="456">
  <name>nic1</name>
  <vm href="/ovirt-engine/api/vms/123" id="123"/>
  <interface>virtio</interface>
  <linked>true</linked>
  <mac>
    <address>02:00:00:00:00:00</address>
  </mac>
  <plugged>true</plugged>
  <vnic_profile href="/ovirt-engine/api/vnicprofiles/789" id="789"/>
</nic>
```

Table 7.246. Attributes summary

Name	Type	Summary
<b>boot_protocol</b>	<a href="#">BootProtocol</a>	Defines how an IP address is assigned to the NIC.
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>interface</b>	<a href="#">NicInterface</a>	The type of driver used for the NIC.
<b>linked</b>	<a href="#">Boolean</a>	Defines if the NIC is linked to the virtual machine.
<b>mac</b>	<a href="#">Mac</a>	The MAC address of the interface.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>on_boot</b>	<a href="#">Boolean</a>	Defines if the network interface should be activated upon operation system startup.
<b>plugged</b>	<a href="#">Boolean</a>	Defines if the NIC is plugged in to the virtual machine.
<b>synced</b>	<a href="#">Boolean</a>	Defines if the NIC configuration on the virtual machine is synced with the configuration represented by engine.

Table 7.247. Links summary

Name	Type	Summary
<b>instance_type</b>	<a href="#">InstanceType</a>	Optionally references to an instance type the device is used by.
<b>network</b>	<a href="#">Network</a>	A reference to the network that the interface should be connected to.
<b>network_attachments</b>	<a href="#">NetworkAttachment[]</a>	A link to a collection of network attachments that are associated with the host NIC.
<b>network_filter_parameters</b>	<a href="#">NetworkFilterParameter[]</a>	A link to the network filter parameters.
<b>network_labels</b>	<a href="#">NetworkLabel[]</a>	A link to a collection of network labels that are associated with the host NIC.

Name	Type	Summary
<b>reported_devices</b>	<a href="#">ReportedDevice[]</a>	A link to a collection of reported devices that are associated with the virtual network interface.
<b>statistics</b>	<a href="#">Statistic[]</a>	A link to the statistics for the NIC.
<b>template</b>	<a href="#">Template</a>	Optionally references to a template the device is used by.
<b>virtual_function_allowed_labels</b>	<a href="#">NetworkLabel[]</a>	A link to a collection of network labels that are allowed to be attached to the virtual functions of an SR-IOV NIC.
<b>virtual_function_allowed_networks</b>	<a href="#">Network[]</a>	A link to a collection of networks that are allowed to be attached to the virtual functions of an SR-IOV NIC.
<b>vm</b>	<a href="#">Vm</a>	Do not use this element, use <b>vms</b> instead.
<b>vms</b>	<a href="#">Vm[]</a>	References to the virtual machines that are using this device.
<b>vnic_profile</b>	<a href="#">VnicProfile</a>	A link to an associated virtual network interface profile.

### 7.186.1. network

A reference to the network that the interface should be connected to. A blank network ID is allowed.

Usage of this element for creating or updating a NIC is deprecated; use **vnic\_profile** instead. It is preserved because it is still in use by the **initialization** element, as a holder for IP addresses and other network details.

### 7.186.2. vms

References to the virtual machines that are using this device. A device may be used by several virtual machines; for example, a shared disk may be used simultaneously by two or more virtual machines.

## 7.187. NICCONFIGURATION STRUCT

The type describes the configuration of a virtual network interface.

Table 7.248. Attributes summary

Name	Type	Summary
<b>boot_protocol</b>	<a href="#">BootProtocol</a>	IPv4 boot protocol.
<b>ip</b>	<a href="#">Ip</a>	IPv4 address details.
<b>ipv6</b>	<a href="#">Ip</a>	IPv6 address details.

Name	Type	Summary
<b>ipv6_boot_protocol</b>	<a href="#">BootProtocol</a>	IPv6 boot protocol.
<b>name</b>	<a href="#">String</a>	Network interface name.
<b>on_boot</b>	<a href="#">Boolean</a>	Specifies whether the network interface should be activated on the virtual machine guest operating system boot.

## 7.188. NICINTERFACE ENUM

Defines the options for an emulated virtual network interface device model.

Table 7.249. Values summary

Name	Summary
<b>e1000</b>	e1000.
<b>e1000e</b>	e1000e.
<b>pci_passthrough</b>	PCI Passthrough.
<b>rtl8139</b>	rtl8139.
<b>rtl8139_virtio</b>	Dual mode rtl8139, VirtIO.
<b>spapr_vlan</b>	sPAPR VLAN.
<b>virtio</b>	VirtIO.

## 7.189. NICSTATUS ENUM

Network interface card status.

Table 7.250. Values summary

Name	Summary
<b>down</b>	The NIC is down and cannot be accessed.
<b>up</b>	The NIC is up and can be accessed.

## 7.190. NOTIFIABLEEVENT ENUM

Type representing a subset of events in the Red Hat Virtualization server: those which a user may subscribe to receive a notification about.

Table 7.251. Values summary

Name	Summary
<b>cluster_alert_ha_reservation</b>	HA Reservation check has failed
<b>cluster_alert_ha_reservation_down</b>	HA Reservation check has passed
<b>dwh_error</b>	ETL Service Error
<b>dwh_stopped</b>	ETL Service Stopped
<b>engine_backup_completed</b>	Engine backup completed successfully
<b>engine_backup_failed</b>	Engine backup failed
<b>engine_backup_started</b>	Engine backup started
<b>engine_ca_certification_has_expired</b>	Engine CA's certification has expired
<b>engine_ca_certification_is_about_to_expire</b>	Engine CA's certification is about to expire
<b>engine_certification_has_expired</b>	Engine's certification has expired
<b>engine_certification_is_about_to_expire</b>	Engine's certification is about to expire
<b>engine_stop</b>	Engine has stopped
<b>faulty_multipaths_on_host</b>	Faulty multipath paths on host
<b>gluster_brick_status_changed</b>	Detected change in status of brick

Name	Summary
<b>gluster_hook_added_failed</b>	Failed to add Gluster Hook on conflicting servers
<b>gluster_hook_added</b>	Added Gluster Hook
<b>gluster_hook_conflict_detected</b>	Detected conflict in Gluster Hook
<b>gluster_hook_detected_delete</b>	Detected removal of Gluster Hook
<b>gluster_hook_detected_new</b>	Detected new Gluster Hook
<b>gluster_hook_disabled</b>	Gluster Hook Disabled
<b>gluster_hook_disabled_failed</b>	Failed to Disable Gluster Hook
<b>gluster_hook_enabled</b>	Gluster Hook Enabled
<b>gluster_hook_enabled_failed</b>	Failed to Enable Gluster Hook
<b>gluster_hook_remove_failed</b>	Failed to remove Gluster Hook from cluster
<b>gluster_hook_removed</b>	Removed Gluster Hook
<b>gluster_server_add_failed</b>	Failed to Add Gluster Server
<b>gluster_server_remove</b>	Gluster Server Removed
<b>gluster_server_remove_failed</b>	Failed to Remove Gluster Server
<b>gluster_service_restart_failed</b>	Failed to re-start Gluster Service
<b>gluster_service_restarted</b>	Gluster Service re-started

Name	Summary
<b>gluster_service_start_failed</b>	Failed to start Gluster service
<b>gluster_service_started</b>	Gluster Service started
<b>gluster_service_stop_failed</b>	Failed to stop Gluster service
<b>gluster_service_stopped</b>	Gluster Service stopped
<b>gluster_volume_add_brick</b>	Gluster Volume brick(s) added
<b>gluster_volume_add_brick_failed</b>	Failed to add brick(s) on Gluster Volume
<b>gluster_volume_all_snapshots_delete_failed</b>	Failed to delete snapshots on the volume
<b>gluster_volume_all_snapshots_deleted</b>	All the snapshots deleted on the volume
<b>gluster_volume_brick_replaced</b>	Gluster Volume Brick Replaced
<b>gluster_volume_confirmed_space_low</b>	Low space for volume confirmed
<b>gluster_volume_create</b>	Gluster Volume Created
<b>gluster_volume_create_failed</b>	Gluster Volume could not be created
<b>gluster_volume_delete</b>	Gluster Volume deleted
<b>gluster_volume_delete_failed</b>	Gluster Volume could not be deleted

Name	Summary
<b>gluster_volume_migrate_brick_data_finished</b>	Gluster Volume migration of data for remove brick finished
<b>gluster_volume_option_added</b>	Gluster Volume Option added
<b>gluster_volume_option_modified</b>	Gluster Volume Option modified
<b>gluster_volume_option_set_failed</b>	Gluster Volume Option could not be set
<b>gluster_volume_options_reset</b>	Gluster Volume Options reset
<b>gluster_volume_options_reset_all</b>	All the Gluster Volume Options reset
<b>gluster_volume_options_reset_failed</b>	Gluster Volume Options could not be reset
<b>gluster_volume_profile_start</b>	Gluster Volume Profile started
<b>gluster_volume_profile_start_failed</b>	Failed to start Gluster Volume Profile
<b>gluster_volume_profile_stop</b>	Gluster Volume Profile stopped
<b>gluster_volume_profile_stop_failed</b>	Failed to stop Gluster Volume Profile
<b>gluster_volume_rebalance_finished</b>	Gluster Volume rebalance finished
<b>gluster_volume_rebalance_not_found_from_cli</b>	Could not find information for rebalance on volume from CLI.

Name	Summary
<b>gluster_volume_rebalance_start</b>	Gluster Volume Rebalance started
<b>gluster_volume_rebalance_start_detected_from_cli</b>	Detected start of rebalance on gluster volume from CLI
<b>gluster_volume_rebalance_start_failed</b>	Gluster Volume Rebalance could not be started
<b>gluster_volume_rebalance_stop</b>	Gluster Volume Rebalance stopped
<b>gluster_volume_rebalance_stop_failed</b>	Gluster Volume Rebalance could not be stopped
<b>gluster_volume_remove_bricks</b>	Gluster Volume Bricks Removed
<b>gluster_volume_remove_bricks_failed</b>	Gluster Volume Bricks could not be removed
<b>gluster_volume_remove_bricks_stop</b>	Stopped removing bricks from Gluster Volume
<b>gluster_volume_remove_bricks_stop_failed</b>	Failed to stop remove bricks from Gluster Volume
<b>gluster_volume_replace_brick_failed</b>	Gluster Volume Replace Brick Failed
<b>gluster_volume_replace_brick_start</b>	Gluster Volume Replace Brick Started
<b>gluster_volume_replace_brick_start_failed</b>	Gluster Volume Replace Brick could not be started

Name	Summary
<b>gluster_volume_snapshot_activate_failed</b>	Failed to activate snapshot on the volume
<b>gluster_volume_snapshot_activated</b>	Snapshot activated on the volume
<b>gluster_volume_snapshot_create_failed</b>	Could not create snapshot for volume <code>#{glusterVolumeName}</code> on cluster <code>#{clusterName}</code> .
<b>gluster_volume_snapshot_created</b>	Snapshot <code>#{snapname}</code> created for volume <code>#{glusterVolumeName}</code> on cluster <code>#{clusterName}</code> .
<b>gluster_volume_snapshot_deactivate_failed</b>	Failed to de-activate snapshot on the volume
<b>gluster_volume_snapshot_deactivated</b>	Snapshot de-activated on the volume
<b>gluster_volume_snapshot_delete_failed</b>	Failed to delete snapshot on volume
<b>gluster_volume_snapshot_deleted</b>	Snapshot deleted on volume
<b>gluster_volume_snapshot_restore_failed</b>	Failed to restore snapshot on the volume
<b>gluster_volume_snapshot_restored</b>	Snapshot restore on the volume
<b>gluster_volume_start</b>	Gluster volume started
<b>gluster_volume_start_failed</b>	Gluster Volume could not be started
<b>gluster_volume_stop</b>	Gluster volume stopped

Name	Summary
<b>gluster_volume_stop_failed</b>	Gluster Volume could not be stopped
<b>ha_vm_failed</b>	Highly-Available VM failed
<b>ha_vm_restart_failed</b>	Highly-Available VM restart failed
<b>host_activate_failed</b>	Failed to activate Host
<b>host_activate_manual_ha</b>	Host was activated, but the Hosted Engine HA service may still be in maintenance mode
<b>host_approve_failed</b>	Failed to approve Host
<b>host_bond_slave_state_down</b>	Host's slave of bond changed state to down
<b>host_certificate_has_invalid_san</b>	Host's certificate contains invalid subject alternative name (SAN)
<b>host_certification_has_expired</b>	Host's certification has expired
<b>host_certification_is_about_to_expire</b>	Host's certification is about to expire
<b>host_failure</b>	Host is non responsive
<b>host_high_cpu_use</b>	Host cpu usage exceeded defined threshold
<b>host_high_memory_use</b>	Host memory usage exceeded defined threshold
<b>host_high_swap_use</b>	Host swap memory usage exceeded defined threshold
<b>host_initiated_reun_vm_failed</b>	Failed to restart VM on a different host

Name	Summary
<b>host_install_failed</b>	Host installation failed
<b>host_interface_high_network_usage</b>	Host network interface usage exceeded defined threshold
<b>host_interface_state_down</b>	Host's interface changed state to down
<b>host_low_mem</b>	Host free memory is under defined threshold
<b>host_low_swap</b>	Host free swap memory is under defined threshold
<b>host_recover_failed</b>	Host failed to recover
<b>host_set_nonoperational</b>	Host state was set to non-operational
<b>host_set_nonoperational_domain</b>	Host state was set to non-operational due to inaccessible Storage Domain
<b>host_set_nonoperational_iface_down</b>	Host state was set to non-operational due to a missing Interface
<b>host_slow_storage_response_time</b>	Slow storage response time
<b>host_time_drift_alert</b>	Host has time-drift
<b>host_untrusted</b>	Host state was set to non-operational.
<b>host_updates_are_available</b>	Host has available updates
<b>host_updates_are_available_with_packages</b>	Host has available packages to update
<b>importexport_import_template_from_trusted_to_untrusted</b>	Template imported from trusted cluster into non-trusted cluster

Name	Summary
<b>importexport_import_template_from_untrusted_to_trusted</b>	Template imported from non-trusted cluster into trusted cluster
<b>importexport_import_vm_from_trusted_to_untrusted</b>	Import VM from trusted cluster into non-trusted cluster
<b>importexport_import_vm_from_untrusted_to_trusted</b>	Import VM from non-trusted cluster into trusted cluster
<b>irs_confirmed_disk_space_low</b>	Confirmed low disk space
<b>irs_disk_space_low</b>	Low disk space
<b>irs_disk_space_low_error</b>	Critically low disk space
<b>irs_failure</b>	Failed to access Storage
<b>mac_address_is_external</b>	VM with external MAC address
<b>multipath_devices_without_valid_paths_on_host</b>	Multipath devices without valid paths on host
<b>network_update_display_for_cluster_with_active_vm</b>	Display network was updated on cluster with an active VM
<b>network_update_display_for_host_with_active_vm</b>	Display network was updated on host with an active VM

Name	Summary
<b>no_faulty_multi_paths_on_host</b>	No faulty multipath paths on host
<b>number_of_lvs_on_storage_domain_exceeded_threshold</b>	Storage Domain's number of LVs exceeded threshold
<b>remove_gluster_volume_bricks_not_found_from_cli</b>	Could not find information for remove brick on volume from CLI.
<b>start_removing_gluster_volume_bricks</b>	Started removing bricks from Volume
<b>start_removing_gluster_volume_bricks_detected_from_cli</b>	Detected start of brick removal for bricks on volume from CLI
<b>start_removing_gluster_volume_bricks_failed</b>	Could not remove volume bricks
<b>system_change_storage_pool_status_no_host_for_spm</b>	Failed electing an SPM for the Data-Center
<b>system_deactivated_storage_domain</b>	Storage Domain state was set to inactive
<b>user_add_vm_from_trusted_to_untrusted</b>	A non-trusted VM was created from trusted Template
<b>user_add_vm_from_untrusted_to_trusted</b>	A trusted VM was created from non-trusted Template
<b>user_add_vm_template_from_trusted_to_untrusted</b>	A non-trusted Template was created from trusted VM

Name	Summary
<b>user_add_vm_template_from_untrusted_to_trusted</b>	A trusted Template was created from non-trusted VM
<b>user_host_maintenance</b>	Host was switched to Maintenance Mode
<b>user_host_maintenance_manual_ha</b>	Host was switched to Maintenance Mode, but Hosted Engine HA maintenance mode could not be enabled
<b>user_host_maintenance_migration_failed</b>	Failed to switch Host to Maintenance mode
<b>user_update_vm_from_trusted_to_untrusted</b>	VM moved from trusted cluster to non-trusted cluster
<b>user_update_vm_from_untrusted_to_trusted</b>	VM moved from non-trusted cluster to trusted cluster
<b>user_update_vm_template_from_trusted_to_untrusted</b>	Template moved from trusted cluster to non-trusted cluster
<b>user_update_vm_template_from_untrusted_to_trusted</b>	Template moved from a non-trusted cluster to a trusted cluster
<b>vm_console_connected</b>	VM console connected
<b>vm_console_disconnected</b>	VM console disconnected
<b>vm_down_error</b>	VM is down with error
<b>vm_failure</b>	VM cannot be found on Host
<b>vm_migration_failed</b>	Migration failed

Name	Summary
<b>vm_migration_start</b>	Starting migration of VM
<b>vm_migration_to_server_failed</b>	Migration of VM to a destination host failed
<b>vm_not_responding</b>	VM is not responding
<b>vm_paused</b>	VM has been paused
<b>vm_paused_eio</b>	VM has been paused due to a storage I/O error
<b>vm_paused_enospc</b>	VM has been paused due to lack of storage space
<b>vm_paused_error</b>	VM has been paused due to storage read/write permissions problem
<b>vm_paused_error</b>	VM has been paused due to unknown storage error
<b>vm_recovered_from_pause_error</b>	VM has recovered from paused back to up
<b>vm_set_ticket</b>	VM console session initiated
<b>vm_status_restored</b>	VM status restored

### 7.190.1. gluster\_volume\_rebalance\_not\_found\_from\_cli

Could not find information for rebalance on volume from CLI. Marking it as unknown.

### 7.190.2. host\_untrusted

Host state was set to non-operational. Host is untrusted by the attestation service

### 7.190.3. remove\_gluster\_volume\_bricks\_not\_found\_from\_cli

Could not find information for remove brick on volume from CLI. Marking it as unknown.

## 7.191. NOTIFICATIONMETHOD ENUM

Type representing the notification method for an event subscription. Currently only SMTP is supported by the API In the future support for SNMP notifications may be added.

Table 7.252. Values summary

Name	Summary
<b>smtp</b>	Notification by e-mail.
<b>snmp</b>	Notification by SNMP.

### 7.191.1. smtp

Notification by e-mail.

Event-subscriptions with SMTP notification method will contain an email address in the address field.

### 7.191.2. snmp

Notification by SNMP.

Event-subscriptions with SNMP notification method will contain an SNMP address in the address field.

## 7.192. NUMANODE STRUCT

Represents a physical NUMA node.

Example XML representation:

```
<host_numa_node href="/ovirt-engine/api/hosts/0923f1ea/numanodes/007cf1ab" id="007cf1ab">
  <cpu>
    <cores>
      <core>
        <index>0</index>
      </core>
    </cores>
  </cpu>
  <index>0</index>
  <memory>65536</memory>
  <node_distance>40 20 40 10</node_distance>
  <host href="/ovirt-engine/api/hosts/0923f1ea" id="0923f1ea"/>
</host_numa_node>
```

Table 7.253. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>cpu</b>	Cpu	
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.

Name	Type	Summary
<b>index</b>	Integer	
<b>memory</b>	Integer	Memory of the NUMA node in MB.
<b>name</b>	String	A human-readable name in plain text.
<b>node_distance</b>	String	

Table 7.254. Links summary

Name	Type	Summary
<b>host</b>	Host	
<b>statistics</b>	Statistic[]	Each host NUMA node resource exposes a statistics sub-collection for host NUMA node specific statistics.

### 7.192.1. statistics

Each host NUMA node resource exposes a statistics sub-collection for host NUMA node specific statistics.

An example of an XML representation:

```
<statistics>
  <statistic href="/ovirt-engine/api/hosts/123/numanodes/456/statistics/789" id="789">
    <name>memory.total</name>
    <description>Total memory</description>
    <kind>gauge</kind>
    <type>integer</type>
    <unit>bytes</unit>
    <values>
      <value>
        <datum>25165824000</datum>
      </value>
    </values>
    <host_numa_node href="/ovirt-engine/api/hosts/123/numanodes/456" id="456" />
  </statistic>
  ...
</statistics>
```



#### NOTE

This statistics sub-collection is read-only.

The following list shows the statistic types for a host NUMA node:

Name	Description
<b>memory.total</b>	Total memory in bytes on the NUMA node.
<b>memory.used</b>	Memory in bytes used on the NUMA node.
<b>memory.free</b>	Memory in bytes free on the NUMA node.
<b>cpu.current.user</b>	Percentage of CPU usage for user slice.
<b>cpu.current.system</b>	Percentage of CPU usage for system.
<b>cpu.current.idle</b>	Percentage of idle CPU usage.

## 7.193. NUMANODEPIN STRUCT

Represents the pinning of a virtual NUMA node to a physical NUMA node.

Table 7.255. Attributes summary

Name	Type	Summary
<b>host_numa_node</b>	<a href="#">NumaNode</a>	Deprecated.
<b>index</b>	<a href="#">Integer</a>	The index of a physical NUMA node to which the virtual NUMA node is pinned.
<b>pinned</b>	<a href="#">Boolean</a>	Deprecated.

### 7.193.1. host\_numa\_node

Deprecated. Has no function.

### 7.193.2. pinned

Deprecated. Should always be **true**.

## 7.194. NUMATUNEMODE ENUM

Table 7.256. Values summary

Name	Summary
<b>interleave</b>	
<b>preferred</b>	

Name	Summary
<b>strict</b>	

## 7.195. OPENSTACKIMAGE STRUCT

Table 7.257. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.

Table 7.258. Links summary

Name	Type	Summary
<b>openstack_image_provider</b>	<a href="#">OpenStackImageProvider</a>	

## 7.196. OPENSTACKIMAGEPROVIDER STRUCT

Table 7.259. Attributes summary

Name	Type	Summary
<b>authentication_url</b>	<a href="#">String</a>	Defines the external provider authentication URL address.
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>password</b>	<a href="#">String</a>	Defines password for the user during the authentication process.
<b>properties</b>	<a href="#">Property[]</a>	Array of provider name/value properties.

Name	Type	Summary
<b>requires_authentication</b>	Boolean	Defines whether provider authentication is required or not.
<b>tenant_name</b>	String	Defines the tenant name for OpenStack Identity API v2.
<b>url</b>	String	Defines URL address of the external provider.
<b>username</b>	String	Defines user name to be used during authentication process.

### 7.196.1. requires\_authentication

Defines whether provider authentication is required or not.

If authentication is required, both **username** and **password** attributes will be used during authentication.

### 7.196.2. tenant\_name

Defines the tenant name for OpenStack Identity API v2.0.

Table 7.260. Links summary

Name	Type	Summary
<b>certificates</b>	Certificate[]	
<b>images</b>	OpenStackImage[]	

## 7.197. OPENSTACKNETWORK STRUCT

Table 7.261. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.

Table 7.262. Links summary

Name	Type	Summary
<b>openstack_network_provider</b>	OpenStackNetworkProvider	

## 7.198. OPENSTACKNETWORKPROVIDER STRUCT

Table 7.263. Attributes summary

Name	Type	Summary
<b>agent_configuration</b>	AgentConfiguration	Deprecated Agent configuration settings.
<b>authentication_url</b>	String	Defines the external provider authentication URL address.
<b>auto_sync</b>	Boolean	Indicates if the <a href="#">networks</a> of this provider are automatically synchronized.
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>external_plugin_type</b>	String	Network plug-in type.
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.
<b>password</b>	String	Defines password for the user during the authentication process.
<b>plugin_type</b>	NetworkPluginType	Network plug-in type.
<b>project_domain_name</b>	String	Defines the project's domain name for OpenStack Identity API v3.
<b>project_name</b>	String	Defines the project name for OpenStack Identity API v3.
<b>properties</b>	Property[]	Array of provider name/value properties.
<b>read_only</b>	Boolean	Indicates whether the provider is read-only.
<b>requires_authentication</b>	Boolean	Defines whether provider authentication is required or not.

Name	Type	Summary
<b>tenant_name</b>	String	Defines the tenant name for OpenStack Identity API v2.
<b>type</b>	OpenStackNetworkProviderType	The type of provider.
<b>unmanaged</b>	Boolean	Indicates whether the provider is unmanaged by Red Hat Virtualization.
<b>url</b>	String	Defines URL address of the external provider.
<b>user_domain_name</b>	String	Defines the domain name of the <b>username</b> in <a href="#">ExternalProvider</a> for OpenStack Identity API v3.
<b>username</b>	String	Defines user name to be used during authentication process.

### 7.198.1. agent\_configuration

Deprecated Agent configuration settings.

Ignored, because the deployment of OpenStack Neutron agent is dropped since Red Hat Virtualization 4.4.0.

### 7.198.2. auto\_sync

Indicates if the [networks](#) of this provider are automatically synchronized.

If **true**, the networks of this provider are automatically and cyclically synchronized to Red Hat Virtualization in the background. This means that all new networks of this provider are imported, and all discarded networks are removed from all [clusters](#) that have this external provider as the default provider. If the name of a network is changed on the provider, the change is synchronized to the network entity in Red Hat Virtualization. Furthermore, if a new cluster that has the provider as the default provider is added, already imported networks are attached to this new cluster during synchronization.

The automatically initiated import triggers the following steps:

- The networks of the external provider will be imported to every [data center](#) in the data centers of the clusters that have that external provider as the default provider.
- A [vNIC profile](#) will be created for each involved data center and network.
- The networks will be assigned to each cluster that has that external provider as the default provider.

All users are allowed to use the new vNIC Profile.

The default is **false** for backwards compatibility.

### 7.198.3. external\_plugin\_type

Network plug-in type.

This attribute allows you to choose the correct provider driver on the host when an external NIC is added or modified. If automated installation of the driver is supported (only available for some predefined implementations, for example **ovirt-provider-ovn**), this attribute will also allow the system to decide which driver implementation to install on newly added hosts.

#### 7.198.4. plugin\_type

Network plug-in type.

Since version 4.2 of the Red Hat Virtualization Manager, this attribute has been deprecated in favour of **external\_plugin\_type**. This attribute is only valid for providers of type **open\_vswitch**, and will only be returned when the value of the **external\_plugin\_type** attribute value is equal to **open\_vswitch**.

If both **plugin\_type** and **external\_plugin\_type** are specified during an update, the value of **plugin\_type** will be ignored.

For external providers this value will not be shown and will be ignored during update requests.

#### 7.198.5. read\_only

Indicates whether the provider is read-only.

A read-only provider does not allow adding, modifying, or deleting of networks or subnets. Port-related operations are allowed, as they are required for the provisioning of virtual NICs.

#### 7.198.6. requires\_authentication

Defines whether provider authentication is required or not.

If authentication is required, both **username** and **password** attributes will be used during authentication.

#### 7.198.7. tenant\_name

Defines the tenant name for OpenStack Identity API v2.0.

#### 7.198.8. unmanaged

Indicates whether the provider is unmanaged by Red Hat Virtualization.

If **true**, authentication and subnet control are entirely left to the external provider and are unmanaged by Red Hat Virtualization.

The default is **false** for backwards compatibility.

Table 7.264. Links summary

Name	Type	Summary
<b>certificates</b>	<a href="#">Certificate[]</a>	Reference to the certificates list.

Name	Type	Summary
<b>networks</b>	<a href="#">OpenStackNetworkk[]</a>	Reference to the OpenStack networks list.
<b>subnets</b>	<a href="#">OpenStackSubnet[]</a>	Reference to the OpenStack networks subnets list.

## 7.199. OPENSTACKNETWORKPROVIDERTYPE ENUM

The OpenStack network provider can either be implemented by OpenStack Neutron, in which case the Neutron agent is automatically installed on the hosts, or it can be an external provider implementing the OpenStack API, in which case the virtual interface driver is a custom solution installed manually.

Table 7.265. Values summary

Name	Summary
<b>external</b>	Indicates that the provider is an external one, implementing the OpenStack Neutron API.
<b>neutron</b>	Indicates that the provider is OpenStack Neutron.

### 7.199.1. external

Indicates that the provider is an external one, implementing the OpenStack Neutron API. The virtual interface driver in this case is implemented by the external provider.

### 7.199.2. neutron

Indicates that the provider is OpenStack Neutron. The standard OpenStack Neutron agent is used as the virtual interface driver.

## 7.200. OPENSTACKPROVIDER STRUCT

Table 7.266. Attributes summary

Name	Type	Summary
<b>authentication_url</b>	<a href="#">String</a>	Defines the external provider authentication URL address.
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.

Name	Type	Summary
<b>name</b>	String	A human-readable name in plain text.
<b>password</b>	String	Defines password for the user during the authentication process.
<b>properties</b>	Property[]	Array of provider name/value properties.
<b>requires_authentication</b>	Boolean	Defines whether provider authentication is required or not.
<b>tenant_name</b>	String	Defines the tenant name for OpenStack Identity API v2.
<b>url</b>	String	Defines URL address of the external provider.
<b>username</b>	String	Defines user name to be used during authentication process.

### 7.200.1. requires\_authentication

Defines whether provider authentication is required or not.

If authentication is required, both **username** and **password** attributes will be used during authentication.

### 7.200.2. tenant\_name

Defines the tenant name for OpenStack Identity API v2.0.

## 7.201. OPENSTACKSUBNET STRUCT

Table 7.267. Attributes summary

Name	Type	Summary
<b>cidr</b>	String	Defines network CIDR.
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>dns_servers</b>	String[]	Defines a list of DNS servers.
<b>gateway</b>	String	Defines IP gateway.
<b>id</b>	String	A unique identifier.
<b>ip_version</b>	String	Defines IP version.

Name	Type	Summary
<b>name</b>	String	A human-readable name in plain text.

### 7.201.1. ip\_version

Defines IP version.

Values can be **v4' for IPv4 or `v6** for IPv6.

Table 7.268. Links summary

Name	Type	Summary
<b>openstack_network</b>	OpenStackNetwork	Reference to the service managing the OpenStack network.

## 7.202. OPENSTACKVOLUMEPROVIDER STRUCT

Openstack Volume (Cinder) integration has been replaced by Managed Block Storage.

Table 7.269. Attributes summary

Name	Type	Summary
<b>authentication_url</b>	String	Defines the external provider authentication URL address.
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.
<b>password</b>	String	Defines password for the user during the authentication process.
<b>properties</b>	Property[]	Array of provider name/value properties.
<b>requires_authentication</b>	Boolean	Defines whether provider authentication is required or not.
<b>tenant_name</b>	String	Defines the tenant name for OpenStack Identity API v2.
<b>url</b>	String	Defines URL address of the external provider.

Name	Type	Summary
<b>username</b>	<a href="#">String</a>	Defines user name to be used during authentication process.

### 7.202.1. requires\_authentication

Defines whether provider authentication is required or not.

If authentication is required, both **username** and **password** attributes will be used during authentication.

### 7.202.2. tenant\_name

Defines the tenant name for OpenStack Identity API v2.0.

Table 7.270. Links summary

Name	Type	Summary
<b>authentication_keys</b>	<a href="#">OpenstackVolumeAuthenticationKey</a> []	
<b>certificates</b>	<a href="#">Certificate</a> []	
<b>data_center</b>	<a href="#">DataCenter</a>	
<b>volume_types</b>	<a href="#">OpenStackVolumeType</a> []	

## 7.203. OPENSTACKVOLUMETYPE STRUCT

Openstack Volume (Cinder) integration has been replaced by Managed Block Storage.

Table 7.271. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>properties</b>	<a href="#">Property</a> []	

Table 7.272. Links summary

Name	Type	Summary
<b>openstack_volume_provider</b>	<a href="#">OpenStackVolumeProvider</a>	

## 7.204. OPENSTACKVOLUMEAUTHENTICATIONKEY STRUCT

Openstack Volume (Cinder) integration has been replaced by Managed Block Storage.

Table 7.273. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>creation_date</b>	<a href="#">Date</a>	
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>usage_type</b>	<a href="#">OpenstackVolumeAuthenticationKeyUsageType</a>	
<b>uuid</b>	<a href="#">String</a>	
<b>value</b>	<a href="#">String</a>	

Table 7.274. Links summary

Name	Type	Summary
<b>openstack_volume_provider</b>	<a href="#">OpenStackVolumeProvider</a>	

## 7.205. OPENSTACKVOLUMEAUTHENTICATIONKEYUSAGETYPE ENUM

Openstack Volume (Cinder) integration has been replaced by Managed Block Storage.

Table 7.275. Values summary

Name	Summary
<b>ceph</b>	

## 7.206. OPERATINGSYSTEM STRUCT

Information describing the operating system. This is used for both virtual machines and hosts.

Table 7.276. Attributes summary

Name	Type	Summary
<b>boot</b>	Boot	Configuration of the boot sequence.
<b>cmdline</b>	String	Custom kernel parameters for starting the virtual machine if Linux operating system is used.
<b>custom_kernel_cmdline</b>	String	A custom part of the host kernel command line.
<b>initrd</b>	String	Path to custom initial ramdisk on ISO storage domain if Linux operating system is used.
<b>kernel</b>	String	Path to custom kernel on ISO storage domain if Linux operating system is used.
<b>reported_kernel_cmdline</b>	String	The host kernel command line as reported by a running host.
<b>type</b>	String	Operating system name in human readable form.
<b>version</b>	Version	

### 7.206.1. boot

Configuration of the boot sequence.



#### NOTE

Not used for hosts.

### 7.206.2. cmdline

Custom kernel parameters for starting the virtual machine if Linux operating system is used.



#### NOTE

Not used for hosts.

### 7.206.3. custom\_kernel\_cmdline

A custom part of the host kernel command line. This will be merged with the existing kernel command line.

You must reinstall and then reboot the host to apply the changes implemented by this attribute.

During each host deploy procedure, kernel parameters that were added in the previous host deploy procedure are removed using **grubby --update-kernel DEFAULT --remove-args <previous\_custom\_params>**, and the current kernel command line customization is applied using **grubby --update-kernel DEFAULT --args <custom\_params>**. The Manager internally keeps track of the last-applied kernel parameters customization.



#### NOTE

This attribute is currently only used for hosts.

### 7.206.4. initrd

Path to custom initial ramdisk on ISO storage domain if Linux operating system is used.

For example **iso://initramfs-3.10.0-514.6.1.el7.x86\_64.img**.



#### NOTE

Not used for hosts.

### 7.206.5. kernel

Path to custom kernel on ISO storage domain if Linux operating system is used.

For example **iso://vmlinuz-3.10.0-514.6.1.el7.x86\_64**.



#### NOTE

Not used for hosts.

### 7.206.6. reported\_kernel\_cmdline

The host kernel command line as reported by a running host.

This is a read-only attribute. Attempts to change this attribute are silently ignored.



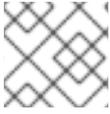
#### NOTE

This attribute is currently only used for hosts.

### 7.206.7. type

Operating system name in human readable form.

For example **Fedora** or **RHEL**. In general one of the names returned by the [operating system](#) service.

**NOTE**

Read only for hosts.

**7.207. OPERATINGSYSTEMINFO STRUCT**

Represents a guest operating system.

**Table 7.277. Attributes summary**

Name	Type	Summary
<b>architecture</b>	<a href="#">Architecture</a>	Operating system architecture.
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>large_icon</b>	<a href="#">Icon</a>	Large icon of the guest operating system.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>small_icon</b>	<a href="#">Icon</a>	Small icon of the guest operating system.
<b>tpm_support</b>	<a href="#">TpmSupport</a>	TPM support status.

**7.207.1. large\_icon**

Large icon of the guest operating system. Maximum dimensions: width 150px, height 120px.

**7.207.2. small\_icon**

Small icon of the guest operating system. Maximum dimensions: width 43px, height 43px.

**7.208. OPTION STRUCT****Table 7.278. Attributes summary**

Name	Type	Summary
<b>name</b>	<a href="#">String</a>	
<b>type</b>	<a href="#">String</a>	
<b>value</b>	<a href="#">String</a>	

## 7.209. OSTYPE ENUM

Type representing kind of operating system.



### WARNING

This type has been deprecated with the introduction of the [OperatingSystemInfo](#) type. Operating systems are available as a top-level collection in the API: [operating\\_systems](#).

The end-user declares the type of the operating system installed in the virtual machine (guest operating system) by selecting one of these values. This declaration enables the system to tune the virtual machine configuration for better user experience. For example, the system chooses devices that are most suitable for the operating system. Note that the system rely on user's selection and does not verify it by inspecting the actual guest operating system installed.

Table 7.279. Values summary

Name	Summary
<b>other</b>	Other type of operating system, not specified by the other values.
<b>other_linux</b>	Distribution of Linux other than those specified by the other values.
<b>rhel_3</b>	Red Hat Enterprise Linux 3 32-bit.
<b>rhel_3x64</b>	Red Hat Enterprise Linux 3 64-bit.
<b>rhel_4</b>	Red Hat Enterprise Linux 4 32-bit.
<b>rhel_4x64</b>	Red Hat Enterprise Linux 4 64-bit.
<b>rhel_5</b>	Red Hat Enterprise Linux 5 32-bit.
<b>rhel_5x64</b>	Red Hat Enterprise Linux 5 64-bit.
<b>rhel_6</b>	Red Hat Enterprise Linux 6 32-bit.
<b>rhel_6x64</b>	Red Hat Enterprise Linux 6 64-bit.
<b>unassigned</b>	This value is mapped to <b>other</b> .
<b>windows_2003</b>	Windows 2003 32-bit.

Name	Summary
<b>windows_2003x64</b>	Windows 2003 64-bit.
<b>windows_2008</b>	Windows 2008 32-bit.
<b>windows_2008r2x64</b>	Windows 2008 R2 64-bit.
<b>windows_2008x64</b>	Windows 2008 64-bit.
<b>windows_2012x64</b>	Windows 2012 64-bit.
<b>windows_7</b>	Windows 7 32-bit.
<b>windows_7x64</b>	Windows 7 64-bit.
<b>windows_8</b>	Windows 8 32-bit.
<b>windows_8x64</b>	Windows 8 64-bit.
<b>windows_xp</b>	Windows XP.

## 7.210. PACKAGE STRUCT

Type representing a package.

This is an example of the package element:

```
<package>
  <name>libipa_hbac-1.9.2-82.11.el6_4.i686</name>
</package>
```

Table 7.280. Attributes summary

Name	Type	Summary
<b>name</b>	String	The name of the package.

## 7.211. PARALLELMIGRATIONS POLICY ENUM

Type representing parallel migration connections policy.

Table 7.281. Values summary

Name	Summary
<b>auto</b>	Choose automatically between parallel and non-parallel connections.
<b>auto_parallel</b>	Use parallel connections and select their number automatically.
<b>custom</b>	Use manually specified number of parallel connections.
<b>disabled</b>	Use non-parallel connections.
<b>inherit</b>	Use cluster value (applicable only to VMs).

### 7.211.1. auto

Choose automatically between parallel and non-parallel connections. If parallel connections are used, select their number automatically.

### 7.211.2. custom

Use manually specified number of parallel connections. The number of parallel connections must be set in `MigrationOptions.customParallelMigrations`.

## 7.212. PAYLOAD STRUCT

Table 7.282. Attributes summary

Name	Type	Summary
<b>files</b>	<a href="#">File[]</a>	
<b>type</b>	<a href="#">VmDeviceType</a>	
<b>volume_id</b>	<a href="#">String</a>	

## 7.213. PAYLOADENCODING ENUM

Table 7.283. Values summary

Name	Summary
<b>base64</b>	
<b>plaintext</b>	

## 7.214. PERMISSION STRUCT

Type represents a permission.

Table 7.284. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.

Table 7.285. Links summary

Name	Type	Summary
<b>cluster</b>	<a href="#">Cluster</a>	Reference to cluster.
<b>data_center</b>	<a href="#">DataCenter</a>	Reference to data center.
<b>disk</b>	<a href="#">Disk</a>	Reference to disk.
<b>group</b>	<a href="#">Group</a>	Reference to group.
<b>host</b>	<a href="#">Host</a>	Reference to host.
<b>role</b>	<a href="#">Role</a>	Reference to role.
<b>storage_domain</b>	<a href="#">StorageDomain</a>	Reference to storage domain.
<b>template</b>	<a href="#">Template</a>	Reference to template.
<b>user</b>	<a href="#">User</a>	Reference to user.
<b>vm</b>	<a href="#">Vm</a>	Reference to virtual machine.
<b>vm_pool</b>	<a href="#">VmPool</a>	Reference to virtual machines pool.

## 7.215. PERMIT STRUCT

Type represents a permit.

Table 7.286. Attributes summary

Name	Type	Summary
<b>administrative</b>	<a href="#">Boolean</a>	Specifies whether permit is administrative or not.

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.

Table 7.287. Links summary

Name	Type	Summary
<b>role</b>	Role	Reference to the role the permit belongs to.

## 7.216. PMPROXY STRUCT

Table 7.288. Attributes summary

Name	Type	Summary
<b>type</b>	PmProxyType	

## 7.217. PMPROXYTYPE ENUM

Table 7.289. Values summary

Name	Summary
<b>cluster</b>	The fence proxy is selected from the same cluster as the fenced host.
<b>dc</b>	The fence proxy is selected from the same data center as the fenced host.
<b>other_dc</b>	The fence proxy is selected from a different data center than the fenced host.

## 7.218. POLICYUNITTYPE ENUM

Holds the types of all internal policy unit types.

Table 7.290. Values summary

Name	Summary
<b>filter</b>	

Name	Summary
<b>load_balancing</b>	
<b>weight</b>	

## 7.219. PORTMIRRORING STRUCT

## 7.220. POWERMANAGEMENT STRUCT

Table 7.291. Attributes summary

Name	Type	Summary
<b>address</b>	<a href="#">String</a>	The host name or IP address of the host.
<b>agents</b>	<a href="#">Agent[]</a>	Specifies fence agent options when multiple fences are used.
<b>automatic_pm_enabled</b>	<a href="#">Boolean</a>	Toggles the automated power control of the host in order to save energy.
<b>enabled</b>	<a href="#">Boolean</a>	Indicates whether power management configuration is enabled or disabled.
<b>kdump_detection</b>	<a href="#">Boolean</a>	Toggles whether to determine if kdump is running on the host before it is shut down.
<b>options</b>	<a href="#">Option[]</a>	Fencing options for the selected type= specified with the option name="" and value="" strings.
<b>password</b>	<a href="#">String</a>	A valid, robust password for power management.
<b>pm_proxies</b>	<a href="#">PmProxy[]</a>	Determines the power management proxy.
<b>status</b>	<a href="#">PowerManagementStatus</a>	Determines the power status of the host.
<b>type</b>	<a href="#">String</a>	Fencing device code.
<b>username</b>	<a href="#">String</a>	A valid user name for power management.

### 7.220.1. agents

Specifies fence agent options when multiple fences are used.

Use the order sub-element to prioritize the fence agents. Agents are run sequentially according to their order until the fence action succeeds. When two or more fence agents have the same order, they are run concurrently. Other sub-elements include type, ip, user, password, and options.

### 7.220.2. automatic\_pm\_enabled

Toggles the automated power control of the host in order to save energy. When set to true, the host will be automatically powered down if the cluster's load is low, and powered on again when required. This is set to true when a host is created, unless disabled by the user.

### 7.220.3. kdump\_detection

Toggles whether to determine if kdump is running on the host before it is shut down. When set to **true**, the host will not shut down during a kdump process. This is set to **true** when a host has power management enabled, unless disabled by the user.

### 7.220.4. type

Fencing device code.

A list of valid fencing device codes are available in the **capabilities** collection.

## 7.221. POWERMANAGEMENTSTATUS ENUM

Table 7.292. Values summary

Name	Summary
<b>off</b>	Host is OFF.
<b>on</b>	Host is ON.
<b>unknown</b>	Unknown status.

## 7.222. PRODUCT STRUCT

Table 7.293. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.

## 7.223. PRODUCTINFO STRUCT

Product information.

The entry point contains a **product\_info** element to help an API user determine the legitimacy of the Red Hat Virtualization environment. This includes the name of the product, the **vendor** and the **version**.

Verify a genuine Red Hat Virtualization environment

The follow elements identify a genuine Red Hat Virtualization environment:

```
<api>
...
<product_info>
  <name>oVirt Engine</name>
  <vendor>ovirt.org</vendor>
  <version>
    <build>0</build>
    <full_version>4.1.0_master</full_version>
    <major>4</major>
    <minor>1</minor>
    <revision>0</revision>
  </version>
</product_info>
...
</api>
```

Table 7.294. Attributes summary

Name	Type	Summary
<b>instance_id</b>	String	The ID of this particular installation of the product.
<b>name</b>	String	The name of the product, for example <b>oVirt Engine</b> .
<b>vendor</b>	String	The name of the vendor, for example `ovirt.
<b>version</b>	Version	The version number of the product.

### 7.223.1. vendor

The name of the vendor, for example **ovirt.org**.

## 7.224. PROFILEDETAIL STRUCT

Table 7.295. Attributes summary

Name	Type	Summary
<b>block_statistics</b>	BlockStatistic[]	
<b>duration</b>	Integer	

Name	Type	Summary
<b>fop_statistics</b>	<a href="#">FopStatistic[]</a>	
<b>profile_type</b>	<a href="#">String</a>	
<b>statistics</b>	<a href="#">Statistic[]</a>	

## 7.225. PROPERTY STRUCT

Table 7.296. Attributes summary

Name	Type	Summary
<b>name</b>	<a href="#">String</a>	
<b>value</b>	<a href="#">String</a>	

## 7.226. PROXYTICKET STRUCT

Table 7.297. Attributes summary

Name	Type	Summary
<b>value</b>	<a href="#">String</a>	

## 7.227. QCOWVERSION ENUM

The QCOW version specifies to the qemu which qemu version the volume supports.

This field can be updated using the update API and will be reported only for QCOW volumes, it is determined by the storage domain's version which the disk is created on. Storage domains with version lower than V4 support QCOW2 version 2 volumes, while V4 storage domains also support QCOW2 version 3. For more information about features of the different QCOW versions, see [here](#).

Table 7.298. Values summary

Name	Summary
<b>qcow2_v2</b>	The <i>Copy On Write</i> default compatibility version It means that every QEMU can use it.
<b>qcow2_v3</b>	The <i>Copy On Write</i> compatibility version which was introduced in QEMU 1.

### 7.227.1. qcow2\_v3

The *Copy On Write* compatibility version which was introduced in QEMU 1.1 It means that the new format is in use.

## 7.228. QOS STRUCT

This type represents the attributes to define Quality of service (QoS).

For storage the **type** is [storage](#), the attributes **max\_throughput**, **max\_read\_throughput**, **max\_write\_throughput**, **max\_iops**, **max\_read\_iops** and **max\_write\_iops** are relevant.

For resources with computing capabilities the **type** is [cpu](#), the attribute **cpu\_limit** is relevant.

For virtual machines networks the **type** is [network](#), the attributes **inbound\_average**, **inbound\_peak**, **inbound\_burst**, **outbound\_average**, **outbound\_peak** and **outbound\_burst** are relevant.

For host networks the **type** is [hostnetwork](#), the attributes **outbound\_average\_linkshare**, **outbound\_average\_upperlimit** and **outbound\_average\_realtime** are relevant.

Table 7.299. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>cpu_limit</b>	<a href="#">Integer</a>	The maximum processing capability in %.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>inbound_average</b>	<a href="#">Integer</a>	The desired average inbound bit rate in Mbps (Megabits per sec).
<b>inbound_burst</b>	<a href="#">Integer</a>	The amount of data that can be delivered in a single burst, in MB.
<b>inbound_peak</b>	<a href="#">Integer</a>	The maximum inbound rate in Mbps (Megabits per sec).
<b>max_iops</b>	<a href="#">Integer</a>	Maximum permitted number of input and output operations per second.
<b>max_read_iops</b>	<a href="#">Integer</a>	Maximum permitted number of input operations per second.
<b>max_read_throughput</b>	<a href="#">Integer</a>	Maximum permitted throughput for read operations.
<b>max_throughput</b>	<a href="#">Integer</a>	Maximum permitted total throughput.
<b>max_write_iops</b>	<a href="#">Integer</a>	Maximum permitted number of output operations per second.
<b>max_write_throughput</b>	<a href="#">Integer</a>	Maximum permitted throughput for write operations.

Name	Type	Summary
<b>name</b>	String	A human-readable name in plain text.
<b>outbound_average</b>	Integer	The desired average outbound bit rate in Mbps (Megabits per sec).
<b>outbound_average_linkshare</b>	Integer	Weighted share.
<b>outbound_average_realtime</b>	Integer	The committed rate in Mbps (Megabits per sec).
<b>outbound_average_upperlimit</b>	Integer	The maximum bandwidth to be used by a network in Mbps (Megabits per sec).
<b>outbound_burst</b>	Integer	The amount of data that can be sent in a single burst, in MB.
<b>outbound_peak</b>	Integer	The maximum outbound rate in Mbps (Megabits per sec).
<b>type</b>	QosType	The kind of resources this entry can be assigned.

### 7.228.1. cpu\_limit

The maximum processing capability in %.

Used to configure computing resources.

### 7.228.2. inbound\_average

The desired average inbound bit rate in Mbps (Megabits per sec).

Used to configure virtual machines networks. If defined, **inbound\_peak** and **inbound\_burst** also has to be set.

See [Libvirt-QOS](#) for further details.

### 7.228.3. inbound\_burst

The amount of data that can be delivered in a single burst, in MB.

Used to configure virtual machine networks. If defined, **inbound\_average** and **inbound\_peak** must also be set.

See [Libvirt-QOS](#) for further details.

### 7.228.4. inbound\_peak

The maximum inbound rate in Mbps (Megabits per sec).

---

Used to configure virtual machines networks. If defined, **inbound\_average** and **inbound\_burst** also has to be set.

See [Libvirt-QOS](#) for further details.

### 7.228.5. max\_iops

Maximum permitted number of input and output operations per second.

Used to configure storage. Must not be set if **max\_read\_iops** or **max\_write\_iops** is set.

### 7.228.6. max\_read\_iops

Maximum permitted number of input operations per second.

Used to configure storage. Must not be set if **max\_iops** is set.

### 7.228.7. max\_read\_throughput

Maximum permitted throughput for read operations.

Used to configure storage. Must not be set if **max\_throughput** is set.

### 7.228.8. max\_throughput

Maximum permitted total throughput.

Used to configure storage. Must not be set if **max\_read\_throughput** or **max\_write\_throughput** is set.

### 7.228.9. max\_write\_iops

Maximum permitted number of output operations per second.

Used to configure storage. Must not be set if **max\_iops** is set.

### 7.228.10. max\_write\_throughput

Maximum permitted throughput for write operations.

Used to configure storage. Must not be set if **max\_throughput** is set.

### 7.228.11. outbound\_average

The desired average outbound bit rate in Mbps (Megabits per sec).

Used to configure virtual machines networks. If defined, **outbound\_peak** and **outbound\_burst** also has to be set.

See [Libvirt-QOS](#) for further details.

### 7.228.12. outbound\_average\_linkshare

Weighted share.

Used to configure host networks. Signifies how much of the logical link's capacity a specific network should be allocated, relative to the other networks attached to the same logical link. The exact share depends on the sum of shares of all networks on that link. By default this is a number in the range 1-100.

### 7.228.13. `outbound_average_realtime`

The committed rate in Mbps (Megabits per sec).

Used to configure host networks. The minimum bandwidth required by a network. The committed rate requested is not guaranteed and will vary depending on the network infrastructure and the committed rate requested by other networks on the same logical link.

### 7.228.14. `outbound_average_upperlimit`

The maximum bandwidth to be used by a network in Mbps (Megabits per sec).

Used to configure host networks. If `outboundAverageUpperlimit` and `outbound_average_realtime` are provided, the `outbound_averageUpperlimit` must not be lower than the `outbound_average_realtime`.

See [Libvirt-QOS](#) for further details.

### 7.228.15. `outbound_burst`

The amount of data that can be sent in a single burst, in MB.

Used to configure virtual machine networks. If defined, `outbound_average` and `outbound_peak` must also be set.

See [Libvirt-QOS](#) for further details.

### 7.228.16. `outbound_peak`

The maximum outbound rate in Mbps (Megabits per sec).

Used to configure virtual machines networks. If defined, `outbound_average` and `outbound_burst` also has to be set.

See [Libvirt-QOS](#) for further details.

Table 7.300. Links summary

Name	Type	Summary
<code>data_center</code>	<a href="#">DataCenter</a>	The data center the QoS is associated to.

## 7.229. QOSTYPE ENUM

This type represents the kind of resource the [Quality of service \(QoS\)](#) can be assigned to.

Table 7.301. Values summary

Name	Summary
<b>cpu</b>	The <a href="#">Quality of service (QoS)</a> can be assigned to resources with computing capabilities.
<b>hostnetwork</b>	The <a href="#">Quality of service (QoS)</a> can be assigned to host networks.
<b>network</b>	The <a href="#">Quality of service (QoS)</a> can be assigned to virtual machines networks.
<b>storage</b>	The <a href="#">Quality of service (QoS)</a> can be assigned to storage.

## 7.230. QUOTA STRUCT

Represents a quota object.

An example XML representation of a quota:

```
<quota href="/ovirt-engine/api/datacenters/7044934e/quotas/dcad5ddc" id="dcad5ddc">
  <name>My Quota</name>
  <description>A quota for my oVirt environment</description>
  <cluster_hard_limit_pct>0</cluster_hard_limit_pct>
  <cluster_soft_limit_pct>0</cluster_soft_limit_pct>
  <data_center href="/ovirt-engine/api/datacenters/7044934e" id="7044934e"/>
  <storage_hard_limit_pct>0</storage_hard_limit_pct>
  <storage_soft_limit_pct>0</storage_soft_limit_pct>
</quota>
```

Table 7.302. Attributes summary

Name	Type	Summary
<b>cluster_hard_limit_pct</b>	<a href="#">Integer</a>	
<b>cluster_soft_limit_pct</b>	<a href="#">Integer</a>	
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>data_center</b>	<a href="#">DataCenter</a>	
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>disks</b>	<a href="#">Disk[]</a>	
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.

Name	Type	Summary
<b>storage_hard_limit_pct</b>	<a href="#">Integer</a>	
<b>storage_soft_limit_pct</b>	<a href="#">Integer</a>	
<b>users</b>	<a href="#">User[]</a>	
<b>vms</b>	<a href="#">Vm[]</a>	

Table 7.303. Links summary

Name	Type	Summary
<b>permissions</b>	<a href="#">Permission[]</a>	
<b>quota_cluster_limits</b>	<a href="#">QuotaClusterLimit[]</a>	
<b>quota_storage_limits</b>	<a href="#">QuotaStorageLimit[]</a>	

## 7.231. QUOTA\_CLUSTER\_LIMIT STRUCT

Table 7.304. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>memory_limit</b>	<a href="#">Decimal</a>	
<b>memory_usage</b>	<a href="#">Decimal</a>	
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>vcpu_limit</b>	<a href="#">Integer</a>	
<b>vcpu_usage</b>	<a href="#">Integer</a>	

Table 7.305. Links summary

Name	Type	Summary
<b>cluster</b>	<a href="#">Cluster</a>	
<b>quota</b>	<a href="#">Quota</a>	

## 7.232. QUOTAMODETYPE ENUM

Table 7.306. Values summary

Name	Summary
<b>audit</b>	
<b>disabled</b>	
<b>enabled</b>	

## 7.233. QUOTASTORAGELIMIT STRUCT

Table 7.307. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>limit</b>	<a href="#">Integer</a>	
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>usage</b>	<a href="#">Decimal</a>	

Table 7.308. Links summary

Name	Type	Summary
<b>quota</b>	<a href="#">Quota</a>	
<b>storage_domain</b>	<a href="#">StorageDomain</a>	

## 7.234. RANGE STRUCT

Table 7.309. Attributes summary

Name	Type	Summary
<b>from</b>	String	
<b>to</b>	String	

## 7.235. RATE STRUCT

Determines maximum speed of consumption of bytes from random number generator device.

Table 7.310. Attributes summary

Name	Type	Summary
<b>bytes</b>	Integer	Number of bytes allowed to consume per period.
<b>period</b>	Integer	Duration of one period in milliseconds.

## 7.236. REGISTRATIONAFFINITYGROUPMAPPING STRUCT

This type describes how to map affinity groups as part of the object registration. An object can be a virtual machine, template, etc.

An example of an XML representation using this mapping:

```
<action>
  <registration_configuration>
    <affinity_group_mappings>
      <registration_affinity_group_mapping>
        <from>
          <name>affinity</name>
        </from>
        <to>
          <name>affinity2</name>
        </to>
      </registration_affinity_group_mapping>
    </affinity_group_mappings>
  </registration_configuration>
</action>
```

Table 7.311. Links summary

Name	Type	Summary
<b>from</b>	AffinityGroup	Reference to the original affinity group.

Name	Type	Summary
<b>to</b>	<a href="#">AffinityGroup</a>	Reference to the destination affinity group.

### 7.236.1. from

Reference to the original affinity group. It can be specified using **name**.

## 7.237. REGISTRATIONAFFINITYLABELMAPPING STRUCT

This type describes how to map affinity labels as part of the object registration. An object can be a virtual machine, template, etc.

An example of an XML representation using mapping:

```
<action>
  <registration_configuration>
    <affinity_label_mappings>
      <registration_affinity_label_mapping>
        <from>
          <name>affinity_label</name>
        </from>
        <to>
          <name>affinity_label2</name>
        </to>
      </registration_affinity_label_mapping>
    </affinity_label_mappings>
  </registration_configuration>
</action>
```

Table 7.312. Links summary

Name	Type	Summary
<b>from</b>	<a href="#">AffinityLabel</a>	Reference to the original affinity label.
<b>to</b>	<a href="#">AffinityLabel</a>	Reference to the destination affinity label.

### 7.237.1. from

Reference to the original affinity label. It can be specified using **name**.

## 7.238. REGISTRATIONCLUSTERMAPPING STRUCT

This type describes how to map clusters as part of the object registration. An object can be a virtual machine, template, etc.

An example of an XML representation using this mapping:

```

<action>
  <registration_configuration>
    <cluster_mappings>
      <registration_cluster_mapping>
        <from>
          <name>myoriginalcluster</name>
        </from>
        <to>
          <name>mynewcluster</name>
        </to>
      </registration_cluster_mapping>
    </cluster_mappings>
  </registration_configuration>
</action>

```

Table 7.313. Links summary

Name	Type	Summary
<b>from</b>	Cluster	Reference to the original cluster.
<b>to</b>	Cluster	Reference to the destination cluster.

### 7.238.1. from

Reference to the original cluster. It can be specified using the **id** or the **name**.

### 7.238.2. to

Reference to the destination cluster. It can be specified using the **id** or the **name**.

## 7.239. REGISTRATIONCONFIGURATION STRUCT

This type describes how an object (virtual machine, template, etc) is registered, and is used for the implementation of disaster recovery solutions.

Each mapping contained in this type can be used to map objects in the original system to corresponding objects in the system where the virtual machine or template is being registered. For example, there could be a primary setup with a virtual machine configured on cluster A, and an active secondary setup with cluster B. Cluster B is compatible with that virtual machine, and in case of a disaster recovery scenario the storage domain can be imported to the secondary setup, and the user can register the virtual machine to cluster B.

In that case, we can automate the recovery process by defining a cluster mapping. After the entity is registered, its OVF will indicate it belongs to cluster A, but the mapping will indicate that cluster A will be replaced with cluster B. Red Hat Virtualization Manager should do the switch and register the virtual machine to cluster B in the secondary site.

Cluster mapping is just one example, there are different types of mappings:

- Cluster mapping.
- LUN mapping.

- Role mapping.
- Domain mapping.
- Permissions mapping.
- Affinity Group mapping.
- Affinity Label mapping.
- Virtual NIC profile mapping.

Each mapping will be used for its specific OVF's data once the register operation takes place in the Red Hat Virtualization Manager.

An example of an XML representation using the mapping:

```
<action>
  <registration_configuration>
    <cluster_mappings>
      <registration_cluster_mapping>
        <from>
          <name>myoriginalcluster</name>
        </from>
        <to>
          <name>mynewcluster</name>
        </to>
      </registration_cluster_mapping>
    </cluster_mappings>
    <role_mappings>
      <registration_role_mapping>
        <from>
          <name>SuperUser</name>
        </from>
        <to>
          <name>UserVmRunTimeManager</name>
        </to>
      </registration_role_mapping>
    </role_mappings>
    <domain_mappings>
      <registration_domain_mapping>
        <from>
          <name>redhat</name>
        </from>
        <to>
          <name>internal</name>
        </to>
      </registration_domain_mapping>
    </domain_mappings>
    <lun_mappings>
      <registration_lun_mapping>
        <from id="111">
        </from>
        <to id="222">
          <alias>weTestLun</alias>
        </to>
      </registration_lun_mapping>
    </lun_mappings>
  </registration_configuration>
</action>
```

```
<type>iscsi</type>
<logical_units>
  <logical_unit id="36001405fb1ddb4b91e44078f1ffcfef">
    <address>44.33.11.22</address>
    <port>3260</port>
    <portal>1</portal>
    <target>iqn.2017-11.com.name.redhat:444</target>
  </logical_unit>
</logical_units>
</lun_storage>
</to>
</registration_lun_mapping>
</lun_mappings>
<affinity_group_mappings>
<registration_affinity_group_mapping>
  <from>
    <name>affinity</name>
  </from>
  <to>
    <name>affinity2</name>
  </to>
</registration_affinity_group_mapping>
</affinity_group_mappings>
<affinity_label_mappings>
<registration_affinity_label_mapping>
  <from>
    <name>affinity_label</name>
  </from>
  <to>
    <name>affinity_label2</name>
  </to>
</registration_affinity_label_mapping>
</affinity_label_mappings>
<vnic_profile_mappings>
<registration_vnic_profile_mapping>
  <from>
    <name>gold</name>
    <network>
      <name>red</name>
    </network>
  </from>
  <to id="738dd914-8ec8-4a8b-8628-34672a5d449b"/>
</registration_vnic_profile_mapping>
<registration_vnic_profile_mapping>
  <from>
    <name>silver</name>
    <network>
      <name>blue</name>
    </network>
  </from>
  <to>
    <name>copper</name>
    <network>
      <name>orange</name>
    </network>
  </to>
```

```

    </registration_vnic_profile_mapping>
  </vnic_profile_mappings>
</registration_configuration>
</action>

```

Table 7.314. Attributes summary

Name	Type	Summary
<b>affinity_group_mappings</b>	<a href="#">RegistrationAffinityGroupMapping[]</a>	Describes how the affinity groups are mapped.
<b>affinity_label_mappings</b>	<a href="#">RegistrationAffinityLabelMapping[]</a>	Describes how the affinity labels are mapped.
<b>cluster_mappings</b>	<a href="#">RegistrationClusterMapping[]</a>	Describes how the clusters that the object references are mapped.
<b>domain_mappings</b>	<a href="#">RegistrationDomainMapping[]</a>	Describes how the users' domains are mapped.
<b>lun_mappings</b>	<a href="#">RegistrationLunMapping[]</a>	Describes how the LUNs are mapped.
<b>role_mappings</b>	<a href="#">RegistrationRoleMapping[]</a>	Describes how the roles are mapped.
<b>vnic_profile_mappings</b>	<a href="#">RegistrationVnicProfileMapping[]</a>	Mapping rules for virtual NIC profiles that will be applied during the register process.

## 7.240. REGISTRATIONDOMAINMAPPING STRUCT

This type describes how to map the users' domain as part of the object registration. An object can be a virtual machine, template, etc. NOTE: This is based on the assumption that user names will be the same, and that only the domain name will be changed.

An example of an XML representation using this mapping:

```

<action>
  <registration_configuration>
    <domain_mappings>
      <registration_domain_mapping>
        <from>
          <name>redhat</name>
        </from>
        <to>
          <name>internal</name>
        </to>
      </registration_domain_mapping>
    </domain_mappings>
  </registration_configuration>
</action>

```

-

Table 7.315. Links summary

Name	Type	Summary
<b>from</b>	Domain	Reference to the original domain.
<b>to</b>	Domain	Reference to the destination domain.

### 7.240.1. from

Reference to the original domain. It can be specified using **name**.

## 7.241. REGISTRATIONLUNMAPPING STRUCT

This type describes how to map LUNs as part of the object registration. An object can be a virtual machine, template, etc.

An external LUN disk is an entity which does not reside on a storage domain. It must be specified because it doesn't need to exist in the environment where the object is registered. An example of an XML representation using this mapping:

```
<action>
  <registration_configuration>
    <lun_mappings>
      <registration_lun_mapping>
    <lun_mappings>
      <registration_lun_mapping>
        <from id="111">
        </from>
        <to id="222">
          <alias>weTestLun</alias>
          <lun_storage>
            <type>iscsi</type>
            <logical_units>
              <logical_unit id="36001405fb1ddb4b91e44078f1ffcfef">
                <address>44.33.11.22</address>
                <port>3260</port>
                <portal>1</portal>
                <target>iqn.2017-11.com.name.redhat:444</target>
              </logical_unit>
            </logical_units>
          </lun_storage>
        </to>
      </registration_lun_mapping>
    </lun_mappings>
  </registration_configuration>
</action>
```

Table 7.316. Links summary

Name	Type	Summary
<b>from</b>	Disk	Reference to the original LUN.
<b>to</b>	Disk	Reference to the LUN which is to be added to the virtual machine.

### 7.241.1. from

Reference to the original LUN. This must be specified using the **id** attribute.

## 7.242. REGISTRATIONROLEMAPPING STRUCT

This type describes how to map roles as part of the object registration. An object can be a virtual machine, template, etc.

A role mapping is intended to map correlating roles between the primary site and the secondary site. For example, there may be permissions with role **UserVmRunTimeManager** for the virtual machine that is being registered. Therefore we can send a mapping that will register the virtual machine in the secondary setup using the **SuperUser** role instead of **UserVmRunTimeManager**. An example of an XML representation using this mapping:

```
<action>
  <registration_configuration>
    <role_mappings>
      <registration_eole_mapping>
        <from>
          <name>SuperUser</name>
        </from>
        <to>
          <name>UserVmRunTimeManager</name>
        </to>
      </registration_role_mapping>
    </role_mappings>
  </registration_configuration>
</action>
```

Table 7.317. Links summary

Name	Type	Summary
<b>from</b>	Role	Reference to the original role.
<b>to</b>	Role	Reference to the destination role.

### 7.242.1. from

Reference to the original role. It can be specified using **name**.

## 7.243. REGISTRATIONVNICPROFILEMAPPING STRUCT

Maps an external virtual NIC profile to one that exists in the Red Hat Virtualization Manager. The target may be specified as a profile ID or a pair of profile name and network name.

If, for example, the desired virtual NIC profile mapping includes the following lines:

Source network name	Source network profile name	Target virtual NIC profile ID\names
<b>red</b>	<b>gold</b>	<b>738dd914-8ec8-4a8b-8628-34672a5d449b</b>
<b>&lt;empty&gt;</b> (no network name)	<b>&lt;empty&gt;</b> (no network profile name)	<b>892a12ec-2028-4451-80aa-ff3bf55d6bac</b>
<b>blue</b>	<b>silver</b>	<b>orange\copper</b>
<b>yellow</b>	<b>platinum</b>	<b>&lt;empty&gt;</b> (no profile)
<b>green</b>	<b>bronze</b>	

Then the following snippet should be added to [RegistrationConfiguration](#)

```
<vnic_profile_mappings>
  <registration_vnic_profile_mapping>
    <from>
      <name>gold</name>
      <network>
        <name>red</name>
      </network>
    </from>
    <to id="738dd914-8ec8-4a8b-8628-34672a5d449b"/>
  </registration_vnic_profile_mapping>
  <registration_vnic_profile_mapping>
    <from>
      <name></name>
      <network>
        <name></name>
      </network>
    </from>
    <to id="892a12ec-2028-4451-80aa-ff3bf55d6bac"/>
  </registration_vnic_profile_mapping>
  <registration_vnic_profile_mapping>
    <from>
      <name>silver</name>
      <network>
        <name>blue</name>
      </network>
    </from>
    <to>
      <name>copper</name>
      <network>
```

```

    <name>orange</name>
  </network>
</to>
</registration_vnic_profile_mapping>
<registration_vnic_profile_mapping>
  <from>
    <name>platinum</name>
    <network>
      <name>yellow</name>
    </network>
  </from>
  <to>
    <name></name>
    <network>
      <name></name>
    </network>
  </to>
</registration_vnic_profile_mapping>
<registration_vnic_profile_mapping>
  <from>
    <name>bronze</name>
    <network>
      <name>green</name>
    </network>
  </from>
</registration_vnic_profile_mapping>
</vnic_profile_mappings>

```

Table 7.318. Links summary

Name	Type	Summary
<b>from</b>	VnicProfile	References to the external network and the external network profile.
<b>to</b>	VnicProfile	Reference to to an existing virtual NIC profile.

### 7.243.1. from

References to the external network and the external network profile. Both should be specified using their **name**.

### 7.243.2. to

Reference to to an existing virtual NIC profile. It should be specified using its **name** or **id**. Either **name** or **id** should be specified but not both.

## 7.244. REPORTEDCONFIGURATION STRUCT

Table 7.319. Attributes summary

Name	Type	Summary
<b>actual_value</b>	String	
<b>expected_value</b>	String	
<b>in_sync</b>	Boolean	<b>false</b> when the network attachment contains uncommitted network configuration.
<b>name</b>	String	

## 7.245. REPORTEDDEVICE STRUCT

Table 7.320. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>ips</b>	Ip[]	
<b>mac</b>	Mac	
<b>name</b>	String	A human-readable name in plain text.
<b>type</b>	ReportedDeviceType	

Table 7.321. Links summary

Name	Type	Summary
<b>vm</b>	Vm	

## 7.246. REPORTEDDEVICETYPE ENUM

Table 7.322. Values summary

Name	Summary
<b>network</b>	

## 7.247. RESOLUTIONTYPE ENUM

Table 7.323. Values summary

Name	Summary
<b>add</b>	
<b>copy</b>	

## 7.248. RNGDEVICE STRUCT

Random number generator (RNG) device model.

Table 7.324. Attributes summary

Name	Type	Summary
<b>rate</b>	<a href="#">Rate</a>	Determines maximum speed of consumption of bytes from random number generator device.
<b>source</b>	<a href="#">RngSource</a>	Backend of the random number generator device.

## 7.249. RNGSOURCE ENUM

Representing the random generator backend types.

Table 7.325. Values summary

Name	Summary
<b>hwrng</b>	Obtains random data from the <b>/dev/hwrng</b> (usually specialized HW generator) device.
<b>random</b>	Obtains random data from the <b>/dev/random</b> device.
<b>urandom</b>	Obtains random data from the <b>/dev/urandom</b> device.

### 7.249.1. urandom

Obtains random data from the **/dev/urandom** device.

This RNG source is meant to replace **random** RNG source for non-cluster-aware entities (i.e. Blank template and instance types) and entities associated with clusters with compatibility version 4.1 or higher.

## 7.250. ROLE STRUCT

Represents a system role.

Table 7.326. Attributes summary

Name	Type	Summary
<b>administrative</b>	Boolean	Defines the role as administrative-only or not.
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>mutable</b>	Boolean	Defines the ability to update or delete the role.
<b>name</b>	String	A human-readable name in plain text.

### 7.250.1. mutable

Defines the ability to update or delete the role.

Roles with mutable set to **false** are predefined roles.

Table 7.327. Links summary

Name	Type	Summary
<b>permits</b>	Permit[]	A link to the permits sub-collection for role permits.
<b>user</b>	User	

## 7.251. ROLETYPE ENUM

Type representing whether a role is administrative or not. A user which was granted at least one administrative role is considered an administrator.

Table 7.328. Values summary

Name	Summary
<b>admin</b>	Administrative role.
<b>user</b>	User role.

## 7.252. SCHEDULINGPOLICY STRUCT

Table 7.329. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>default_policy</b>	Boolean	
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>locked</b>	Boolean	
<b>name</b>	String	A human-readable name in plain text.
<b>properties</b>	Property[]	

Table 7.330. Links summary

Name	Type	Summary
<b>balances</b>	Balance[]	
<b>filters</b>	Filter[]	
<b>weight</b>	Weight[]	

## 7.253. SCHEDULINGPOLICYUNIT STRUCT

Table 7.331. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>enabled</b>	Boolean	
<b>id</b>	String	A unique identifier.
<b>internal</b>	Boolean	
<b>name</b>	String	A human-readable name in plain text.
<b>properties</b>	Property[]	

Name	Type	Summary
<b>type</b>	<a href="#">PolicyUnitType</a>	

## 7.254. SCSIGENERICIO ENUM

When a direct LUN disk is using SCSI passthrough the privileged I/O policy is determined by this enum.

Table 7.332. Values summary

Name	Summary
<b>disabled</b>	Disable SCSI passthrough.
<b>filtered</b>	Disallow privileged SCSI I/O.
<b>unfiltered</b>	Allow privileged SCSI I/O.

## 7.255. SELINUX STRUCT

Represents SELinux in the system.

Table 7.333. Attributes summary

Name	Type	Summary
<b>mode</b>	<a href="#">SeLinuxMode</a>	SELinux current mode.

## 7.256. SELINUXMODE ENUM

Represents an SELinux enforcement mode.

Table 7.334. Values summary

Name	Summary
<b>disabled</b>	SELinux is disabled in the kernel.
<b>enforcing</b>	SELinux is running and enforcing permissions.
<b>permissive</b>	SELinux is running and logging but not enforcing permissions.

## 7.257. SERIALNUMBER STRUCT

Table 7.335. Attributes summary

Name	Type	Summary
<b>policy</b>	SerialNumberPolicy	
<b>value</b>	String	

## 7.258. SERIALNUMBERPOLICY ENUM

Type representing the policy of a Serial Number.

Table 7.336. Values summary

Name	Summary
<b>custom</b>	This policy allows the user to provide an arbitrary string as the Serial Number.
<b>host</b>	This policy is the legacy policy.
<b>none</b>	This policy is used to remove the Serial Number Policy, moving it to default: null.
<b>vm</b>	This policy will use the Virtual Machine ID as the Serial Number.

### 7.258.1. host

This policy is the legacy policy. It will use the Host ID as the Serial Number.

## 7.259. SESSION STRUCT

Describes a user session to a virtual machine.

Table 7.337. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>console_user</b>	Boolean	Indicates if this is a console session.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>ip</b>	Ip	The IP address the user is connected from.
<b>name</b>	String	A human-readable name in plain text.

Name	Type	Summary
<b>protocol</b>	String	The protocol used by the session.

### 7.259.1. console\_user

Indicates if this is a console session.

The value will be **true** for console users (SPICE or VNC), and **false** for others (such as RDP or SSH).

### 7.259.2. ip

The IP address the user is connected from.

Currently only available for console users.

### 7.259.3. protocol

The protocol used by the session.

Currently not used. Intended for info about how the user is connected: through SPICE, VNC, SSH, or RDP.

**Table 7.338. Links summary**

Name	Type	Summary
<b>user</b>	User	The user related to this session.
<b>vm</b>	Vm	A link to the virtual machine related to this session.

### 7.259.4. user

The user related to this session.

If the user is a console user, this is a link to the real Red Hat Virtualization user. Otherwise, only the user name is provided.

## 7.260. SKIPIFCONNECTIVITYBROKEN STRUCT

**Table 7.339. Attributes summary**

Name	Type	Summary
<b>enabled</b>	Boolean	If enabled, we will not fence a host in case more than a configurable percentage of hosts in the cluster lost connectivity as well.
<b>threshold</b>	Integer	Threshold for connectivity testing.

### 7.260.1. enabled

If enabled, we will not fence a host in case more than a configurable percentage of hosts in the cluster lost connectivity as well. This comes to prevent fencing *storm* in cases where there is a global networking issue in the cluster.

### 7.260.2. threshold

Threshold for connectivity testing. If at least the threshold percentage of hosts in the cluster lost connectivity then fencing will not take place.

## 7.261. SKIPIFSDACTIVE STRUCT

This type represents the storage related configuration in the fencing policy.

Table 7.340. Attributes summary

Name	Type	Summary
<b>enabled</b>	Boolean	If enabled, we will skip fencing in case the host maintains its lease in the storage.

### 7.261.1. enabled

If enabled, we will skip fencing in case the host maintains its lease in the storage. It means that if the host still has storage access then it won't get fenced.

## 7.262. SNAPSHOT STRUCT

Represents a snapshot object.

Example XML representation:

```
<snapshot id="456" href="/ovirt-engine/api/vms/123/snapshots/456">
  <actions>
    <link rel="restore" href="/ovirt-engine/api/vms/123/snapshots/456/restore"/>
  </actions>
  <vm id="123" href="/ovirt-engine/api/vms/123"/>
  <description>Virtual Machine 1 - Snapshot A</description>
  <type>active</type>
  <date>2010-08-16T14:24:29</date>
  <persist_memorystate>>false</persist_memorystate>
</snapshot>
```

Table 7.341. Attributes summary

Name	Type	Summary
<b>auto_pinning_policy</b>	AutoPinningPolicy	Specifies if and how the auto CPU and NUMA configuration is applied.

Name	Type	Summary
<b>bios</b>	<a href="#">Bios</a>	Reference to virtual machine's BIOS configuration.
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>console</b>	<a href="#">Console</a>	Console configured for this virtual machine.
<b>cpu</b>	<a href="#">Cpu</a>	The configuration of the virtual machine CPU.
<b>cpu_pinning_policy</b>	<a href="#">CpuPinningPolicy</a>	Specifies if and how the CPU and NUMA configuration is applied.
<b>cpu_shares</b>	<a href="#">Integer</a>	
<b>creation_time</b>	<a href="#">Date</a>	The virtual machine creation date.
<b>custom_compatibility_version</b>	<a href="#">Version</a>	Virtual machine custom compatibility version.
<b>custom_cpu_model</b>	<a href="#">String</a>	
<b>custom_emulated_machine</b>	<a href="#">String</a>	
<b>custom_properties</b>	<a href="#">CustomProperty[]</a>	Properties sent to VDSM to configure various hooks.
<b>date</b>	<a href="#">Date</a>	The date when this snapshot has been created.
<b>delete_protected</b>	<a href="#">Boolean</a>	If <b>true</b> , the virtual machine cannot be deleted.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>display</b>	<a href="#">Display</a>	The virtual machine display configuration.
<b>domain</b>	<a href="#">Domain</a>	Domain configured for this virtual machine.
<b>fqdn</b>	<a href="#">String</a>	Fully qualified domain name of the virtual machine.
<b>guest_operating_system</b>	<a href="#">GuestOperatingSystem</a>	What operating system is installed on the virtual machine.
<b>guest_time_zone</b>	<a href="#">TimeZone</a>	What time zone is used by the virtual machine (as returned by guest agent).

Name	Type	Summary
<b>has_illegal_images</b>	Boolean	Indicates whether the virtual machine has snapshots with disks in <b>ILLEGAL</b> state.
<b>high_availability</b>	HighAvailability	The virtual machine high availability configuration.
<b>id</b>	String	A unique identifier.
<b>initialization</b>	Initialization	Reference to the virtual machine's initialization configuration.
<b>io</b>	Io	For performance tuning of IO threading.
<b>large_icon</b>	Icon	Virtual machine's large icon.
<b>lease</b>	StorageDomainLease	Reference to the storage domain this virtual machine/template lease reside on.
<b>memory</b>	Integer	The virtual machine's memory, in bytes.
<b>memory_policy</b>	MemoryPolicy	Reference to virtual machine's memory management configuration.
<b>migration</b>	MigrationOptions	Reference to configuration of migration of a running virtual machine to another host.
<b>migration_down_time</b>	Integer	Maximum time the virtual machine can be non responsive during its live migration to another host in ms.
<b>multi_queues_enabled</b>	Boolean	If <b>true</b> , each virtual interface will get the optimal number of queues, depending on the available virtual Cpus.
<b>name</b>	String	A human-readable name in plain text.
<b>next_run_configuration_exists</b>	Boolean	Virtual machine configuration has been changed and requires restart of the virtual machine.
<b>numa_tune_mode</b>	NumaTuneMode	How the NUMA topology is applied.
<b>origin</b>	String	The origin of this virtual machine.
<b>os</b>	OperatingSystem	Operating system type installed on the virtual machine.
<b>payloads</b>	Payload[]	Optional payloads of the virtual machine, used for ISOs to configure it.

Name	Type	Summary
<b>persist_memory_state</b>	Boolean	Indicates if the content of the memory of the virtual machine is included in the snapshot.
<b>placement_policy</b>	VmPlacementPolicy	The configuration of the virtual machine's placement policy.
<b>rng_device</b>	RngDevice	Random Number Generator device configuration for this virtual machine.
<b>run_once</b>	Boolean	If <b>true</b> , the virtual machine has been started using the <i>run once</i> command, meaning it's configuration might differ from the stored one for the purpose of this single run.
<b>serial_number</b>	SerialNumber	Virtual machine's serial number in a cluster.
<b>small_icon</b>	Icon	Virtual machine's small icon.
<b>snapshot_statuses</b>	SnapshotStatus	Status of the snapshot.
<b>snapshot_type</b>	SnapshotType	Type of the snapshot.
<b>soundcard_enabled</b>	Boolean	If <b>true</b> , the sound card is added to the virtual machine.
<b>sso</b>	Sso	Reference to the Single Sign On configuration this virtual machine is configured for.
<b>start_paused</b>	Boolean	If <b>true</b> , the virtual machine will be initially in 'paused' state after start.
<b>start_time</b>	Date	The date in which the virtual machine was started.
<b>stateless</b>	Boolean	If <b>true</b> , the virtual machine is stateless - it's state (disks) are rolled-back after shutdown.
<b>status</b>	VmStatus	The current status of the virtual machine.
<b>status_detail</b>	String	Human readable detail of current status.
<b>stop_reason</b>	String	The reason the virtual machine was stopped.
<b>stop_time</b>	Date	The date in which the virtual machine was stopped.

Name	Type	Summary
<b>storage_error_resume_behavior</b>	<a href="#">VmStorageErrorResumeBehaviour</a>	Determines how the virtual machine will be resumed after storage error.
<b>time_zone</b>	<a href="#">TimeZone</a>	The virtual machine's time zone set by oVirt.
<b>tpm_enabled</b>	<a href="#">Boolean</a>	If <b>true</b> , a TPM device is added to the virtual machine.
<b>tunnel_migration</b>	<a href="#">Boolean</a>	If <b>true</b> , the network data transfer will be encrypted during virtual machine live migration.
<b>type</b>	<a href="#">VmType</a>	Determines whether the virtual machine is optimized for desktop or server.
<b>usb</b>	<a href="#">Usb</a>	Configuration of USB devices for this virtual machine (count, type).
<b>use_latest_template_version</b>	<a href="#">Boolean</a>	If <b>true</b> , the virtual machine is reconfigured to the latest version of its template when it is started.
<b>virtio_scsi</b>	<a href="#">VirtioScsi</a>	Reference to VirtIO SCSI configuration.
<b>virtio_scsi_multi_queues</b>	<a href="#">Integer</a>	Number of queues for a Virtio-SCSI controller this field requires <code>virtioScsiMultiQueuesEnabled</code> to be true see <code>virtioScsiMultiQueuesEnabled</code> for more info
<b>virtio_scsi_multi_queues_enabled</b>	<a href="#">Boolean</a>	If <b>true</b> , the Virtio-SCSI devices will obtain a number of multiple queues depending on the available virtual Cpus and disks, or according to the specified <code>virtioScsiMultiQueues</code> .

### 7.262.1. auto\_pinning\_policy

Specifies if and how the auto CPU and NUMA configuration is applied.



#### IMPORTANT

Since version 4.5 of the engine this operation is deprecated, and preserved only for backwards compatibility. It might be removed in the future. Please use `CpuPinningPolicy` instead.

### 7.262.2. cpu

The configuration of the virtual machine CPU.

The socket configuration can be updated without rebooting the virtual machine. The cores and the threads require a reboot.

For example, to change the number of sockets to 4 immediately, and the number of cores and threads to 2 after reboot, send the following request:

```
PUT /ovirt-engine/api/vms/123
```

With a request body:

```
<vm>
  <cpu>
    <topology>
      <sockets>4</sockets>
      <cores>2</cores>
      <threads>2</threads>
    </topology>
  </cpu>
</vm>
```

### 7.262.3. cpu\_pinning\_policy

Specifies if and how the CPU and NUMA configuration is applied. When not specified the previous behavior of CPU pinning string will determine CpuPinningPolicy to None or Manual.

### 7.262.4. custom\_compatibility\_version

Virtual machine custom compatibility version.

Enables a virtual machine to be customized to its own compatibility version. If **custom\_compatibility\_version** is set, it overrides the cluster's compatibility version for this particular virtual machine.

The compatibility version of a virtual machine is limited by the data center the virtual machine resides in, and is checked against capabilities of the host the virtual machine is planned to run on.

### 7.262.5. high\_availability

The virtual machine high availability configuration. If set, the virtual machine will be automatically restarted when it unexpectedly goes down.

### 7.262.6. initialization

Reference to the virtual machine's initialization configuration.



#### NOTE

Since Red Hat Virtualization 4.1.8 this property can be cleared by sending an empty tag.

For example, to clear the **initialization** attribute send a request like this:

```
PUT /ovirt-engine/api/vms/123
```

With a request body like this:

```
<vm>
  <initialization/>
</vm>
```

The response to such a request, and requests with the header **All-Content: true** will still contain this attribute.

### 7.262.7. large\_icon

Virtual machine's large icon. Either set by user or refers to image set according to operating system.

### 7.262.8. lease

Reference to the storage domain this virtual machine/template lease reside on.

A virtual machine running with a lease requires checking while running that the lease is not taken by another host, preventing another instance of this virtual machine from running on another host. This provides protection against split-brain in highly available virtual machines. A template can also have a storage domain defined for a lease in order to have the virtual machines created from this template to be preconfigured with this storage domain as the location of the leases.

### 7.262.9. memory

The virtual machine's memory, in bytes.

For example, to update a virtual machine to contain 1 Gibibyte (GiB) of memory, send the following request:

```
PUT /ovirt-engine/api/vms/123
```

With the following request body:

```
<vm>
  <memory>1073741824</memory>
</vm>
```

Memory hot plug is supported from Red Hat Virtualization 3.6 onwards. You can use the example above to increase memory while the virtual machine is in state **up**. The size increment must be dividable by the value of the **HotPlugMemoryBlockSizeMb** configuration value (256 MiB by default). If the memory size increment is not dividable by this value, the memory size change is only stored to next run configuration. Each successful memory hot plug operation creates one or two new memory devices.

Memory hot unplug is supported since Red Hat Virtualization 4.2 onwards. Memory hot unplug can only be performed when the virtual machine is in state **up**. Only previously hot plugged memory devices can be removed by the hot unplug operation. The requested memory decrement is rounded down to match sizes of a combination of previously hot plugged memory devices. The requested memory value is stored to next run configuration without rounding.



#### NOTE

Memory in the example is converted to bytes using the following formula:  
 $1 \text{ GiB} = 2^{30} \text{ bytes} = 1073741824 \text{ bytes}.$

**NOTE**

Red Hat Virtualization Manager internally rounds values down to whole MiBs (1MiB = 2<sup>20</sup> bytes)

**7.262.10. migration**

Reference to configuration of migration of a running virtual machine to another host.

**NOTE**

API for querying migration policy by ID returned by this method is not implemented yet. Use **/ovirt-engine/api/options/MigrationPolicies** to get a list of all migration policies with their IDs.

**7.262.11. migration\_downtime**

Maximum time the virtual machine can be non responsive during its live migration to another host in ms.

Set either explicitly for the virtual machine or by **engine-config -s DefaultMaximumMigrationDowntime=[value]**

**7.262.12. next\_run\_configuration\_exists**

Virtual machine configuration has been changed and requires restart of the virtual machine. Changed configuration is applied at processing the virtual machine's *shut down*.

**7.262.13. numa\_tune\_mode**

How the NUMA topology is applied. Deprecated in favor of NUMA tune per vNUMA node.

**7.262.14. origin**

The origin of this virtual machine.

Possible values:

- **ovirt**
- **rhev**
- **vmware**
- **xen**
- **external**
- **hosted\_engine**
- **managed\_hosted\_engine**
- **kvm**
- **physical\_machine**

- **hyperv**

### 7.262.15. **persist\_memorystate**

Indicates if the content of the memory of the virtual machine is included in the snapshot.

When a snapshot is created the default value is **true**.

### 7.262.16. **placement\_policy**

The configuration of the virtual machine's placement policy.

This configuration can be updated to pin a virtual machine to one or more hosts.



#### **NOTE**

Virtual machines that are pinned to multiple hosts cannot be live migrated, but in the event of a host failure, any virtual machine configured to be highly available is automatically restarted on one of the other hosts to which the virtual machine is pinned.

For example, to pin a virtual machine to two hosts, send the following request:

```
PUT /api/vms/123
```

With a request body like this:

```
<vm>
  <high_availability>
    <enabled>true</enabled>
    <priority>1</priority>
  </high_availability>
  <placement_policy>
    <hosts>
      <host>
        <name>Host1 </name>
      </host>
      <host>
        <name>Host2</name>
      </host>
    </hosts>
    <affinity>pinned</affinity>
  </placement_policy>
</vm>
```

### 7.262.17. **small\_icon**

Virtual machine's small icon. Either set by user or refers to image set according to operating system.

### 7.262.18. **sso**

Reference to the Single Sign On configuration this virtual machine is configured for. The user can be automatically signed in the virtual machine's operating system when console is opened.

### 7.262.19. stop\_reason

The reason the virtual machine was stopped. Optionally set by user when shutting down the virtual machine.

### 7.262.20. tpm\_enabled

If **true**, a TPM device is added to the virtual machine. By default the value is **false**. This property is only visible when fetching if "All-Content=true" header is set.

Table 7.342. Links summary

Name	Type	Summary
<b>affinity_labels</b>	<a href="#">AffinityLabel[]</a>	Optional.
<b>applications</b>	<a href="#">Application[]</a>	List of applications installed on the virtual machine.
<b>cdroms</b>	<a href="#">Cdrom[]</a>	Reference to the ISO mounted to the CDROM.
<b>cluster</b>	<a href="#">Cluster</a>	Reference to cluster the virtual machine belongs to.
<b>cpu_profile</b>	<a href="#">CpuProfile</a>	Reference to CPU profile used by this virtual machine.
<b>disk_attachments</b>	<a href="#">DiskAttachment[]</a>	References the disks attached to the virtual machine.
<b>disks</b>	<a href="#">Disk[]</a>	List of disks linked to the snapshot.
<b>dynamic_cpu</b>	<a href="#">DynamicCpu</a>	The dynamic configuration of the virtual machine CPU.
<b>external_host_provider</b>	<a href="#">ExternalHostProvider</a>	
<b>floppies</b>	<a href="#">Floppy[]</a>	Reference to the ISO mounted to the floppy.
<b>graphics_consoles</b>	<a href="#">GraphicsConsole[]</a>	List of graphics consoles configured for this virtual machine.
<b>host</b>	<a href="#">Host</a>	Reference to the host the virtual machine is running on.
<b>host_devices</b>	<a href="#">HostDevice[]</a>	References devices associated to this virtual machine.
<b>instance_type</b>	<a href="#">InstanceType</a>	The virtual machine configuration can be optionally predefined via one of the instance types.
<b>katello_errata</b>	<a href="#">KatelloErratum[]</a>	Lists all the Katello errata assigned to the virtual machine.

Name	Type	Summary
<b>mediated_devices</b>	<a href="#">VmMediatedDevice[]</a>	Mediated devices configuration.
<b>nics</b>	<a href="#">Nic[]</a>	References the list of network interface devices on the virtual machine.
<b>numa_nodes</b>	<a href="#">NumaNode[]</a>	Refers to the NUMA Nodes configuration used by this virtual machine.
<b>original_template</b>	<a href="#">Template</a>	References the original template used to create the virtual machine.
<b>permissions</b>	<a href="#">Permission[]</a>	Permissions set for this virtual machine.
<b>quota</b>	<a href="#">Quota</a>	Reference to quota configuration set for this virtual machine.
<b>reported_devices</b>	<a href="#">ReportedDevice[]</a>	
<b>sessions</b>	<a href="#">Session[]</a>	List of user sessions opened for this virtual machine.
<b>snapshots</b>	<a href="#">Snapshot[]</a>	Refers to all snapshots taken from the virtual machine.
<b>statistics</b>	<a href="#">Statistic[]</a>	Statistics data collected from this virtual machine.
<b>storage_domain</b>	<a href="#">StorageDomain</a>	Reference to storage domain the virtual machine belongs to.
<b>tags</b>	<a href="#">Tag[]</a>	
<b>template</b>	<a href="#">Template</a>	Reference to the template the virtual machine is based on.
<b>vm</b>	<a href="#">Vm</a>	The virtual machine this snapshot has been taken for.
<b>vm_pool</b>	<a href="#">VmPool</a>	Reference to the pool the virtual machine is optionally member of.
<b>watchdogs</b>	<a href="#">Watchdog[]</a>	Refers to the Watchdog configuration.

### 7.262.21. affinity\_labels

Optional. Used for labeling of sub-clusters.

### 7.262.22. katello\_errata

Lists all the Katello errata assigned to the virtual machine.

GET /ovirt-engine/api/vms/123/katelloerrata

You will receive response in XML like this one:

```
<katello_errata>
  <katello_erratum href="/ovirt-engine/api/katelloerrata/456" id="456">
    <name>RHBA-2013:XYZ</name>
    <description>The description of the erratum</description>
    <title>some bug fix update</title>
    <type>bugfix</type>
    <issued>2013-11-20T02:00:00.000+02:00</issued>
    <solution>Few guidelines regarding the solution</solution>
    <summary>Updated packages that fix one bug are now available for XYZ</summary>
    <packages>
      <package>
        <name>libipa_hbac-1.9.2-82.11.el6_4.i686</name>
      </package>
      ...
    </packages>
  </katello_erratum>
  ...
</katello_errata>
```

### 7.262.23. original\_template

References the original template used to create the virtual machine.

If the virtual machine is cloned from a template or another virtual machine, the **template** links to the Blank template, and the **original\_template** is used to track history.

Otherwise the **template** and **original\_template** are the same.

### 7.262.24. statistics

Statistics data collected from this virtual machine.

Note that some statistics, notably **memory.buffered** and **memory.cached** are available only when [Red Hat Virtualization guest agent](#) is installed in the virtual machine.

## 7.263. SNAPSHOTSTATUS ENUM

Represents the current status of the snapshot.

Table 7.343. Values summary

Name	Summary
<b>in_preview</b>	The snapshot is being previewed.
<b>locked</b>	The snapshot is locked.
<b>ok</b>	The snapshot is OK.

### 7.263.1. locked

The snapshot is locked.

The snapshot is locked when it is in process of being created, deleted, restored or previewed.

## 7.264. SNAPSHOTTYPE ENUM

Represents the type of the snapshot.

Table 7.344. Values summary

Name	Summary
<b>active</b>	Reference to the current configuration of the virtual machines.
<b>preview</b>	The <b>active</b> snapshot will become <b>preview</b> if some snapshot is being previewed.
<b>regular</b>	Snapshot created by user.
<b>stateless</b>	Snapshot created internally for stateless virtual machines.

### 7.264.1. preview

The **active** snapshot will become **preview** if some snapshot is being previewed.

In other words, this is the **active** snapshot before preview.

### 7.264.2. stateless

Snapshot created internally for stateless virtual machines.

This snapshot is created when the virtual machine is started and it is restored when the virtual machine is shut down.

## 7.265. SPECIALOBJECTS STRUCT

This type contains references to special objects, such as blank templates and the root of a hierarchy of tags.

Table 7.345. Links summary

Name	Type	Summary
<b>blank_template</b>	<a href="#">Template</a>	A reference to a blank template.
<b>root_tag</b>	<a href="#">Tag</a>	A reference to the root of a hierarchy of tags.

## 7.266. SPM STRUCT

Table 7.346. Attributes summary

Name	Type	Summary
<b>priority</b>	<a href="#">Integer</a>	
<b>status</b>	<a href="#">SpmStatus</a>	

## 7.267. SPMSTATUS ENUM

Table 7.347. Values summary

Name	Summary
<b>contending</b>	
<b>none</b>	
<b>spm</b>	

## 7.268. SSH STRUCT

Table 7.348. Attributes summary

Name	Type	Summary
<b>authentication_method</b>	<a href="#">SshAuthentication Method</a>	
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>fingerprint</b>	<a href="#">String</a>	Fingerprint of SSH public key for a host.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>port</b>	<a href="#">Integer</a>	
<b>public_key</b>	<a href="#">String</a>	SSH public key of the host using SSH public key format as defined in <a href="https://tools">link:https://tools</a> .
<b>user</b>	<a href="#">User</a>	

### 7.268.1. fingerprint

Fingerprint of SSH public key for a host. This field is deprecated since 4.4.5 and will be removed in the future.

Please use `publicKey` instead.

### 7.268.2. public\_key

SSH public key of the host using SSH public key format as defined in [RFC4253](#).

## 7.269. SSHAUTHENTICATIONMETHOD ENUM

Table 7.349. Values summary

Name	Summary
<code>password</code>	
<code>publickey</code>	

## 7.270. SSHPUBLICKEY STRUCT

Table 7.350. Attributes summary

Name	Type	Summary
<code>comment</code>	<a href="#">String</a>	Free text containing comments about this object.
<code>content</code>	<a href="#">String</a>	Contains a saved SSH key.
<code>description</code>	<a href="#">String</a>	A human-readable description in plain text.
<code>id</code>	<a href="#">String</a>	A unique identifier.
<code>name</code>	<a href="#">String</a>	A human-readable name in plain text.

Table 7.351. Links summary

Name	Type	Summary
<code>user</code>	<a href="#">User</a>	

## 7.271. SSO STRUCT

Table 7.352. Attributes summary

Name	Type	Summary
<b>methods</b>	<a href="#">Method[]</a>	

## 7.272. SSOMETHOD ENUM

Table 7.353. Values summary

Name	Summary
<b>guest_agent</b>	

## 7.273. STATISTIC STRUCT

A generic type used for all kinds of statistics.

Statistic contains the statistics values for various entities. The following object contain statistics:

- Disk
- Host
- HostNic
- NumaNode
- Nic
- Vm
- GlusterBrick
- Step
- GlusterVolume

An example of a XML representation:

```
<statistics>
  <statistic id="1234" href="/ovirt-engine/api/hosts/1234/nics/1234/statistics/1234">
    <name>data.current.rx</name>
    <description>Receive data rate</description>
    <values type="DECIMAL">
      <value>
        <datum>0</datum>
      </value>
    </values>
    <type>GAUGE</type>
    <unit>BYTES_PER_SECOND</unit>
    <host_nic id="1234" href="/ovirt-engine/api/hosts/1234/nics/1234"/>
  </statistic>
</statistics>
```

`</statistic>`

...

`</statistics>`**NOTE**

This statistics sub-collection is read-only.

Table 7.354. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>kind</b>	<a href="#">StatisticKind</a>	The type of statistic measures.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>type</b>	<a href="#">ValueType</a>	The data type for the statistical values that follow.
<b>unit</b>	<a href="#">StatisticUnit</a>	The unit or rate to measure of the statistical values.
<b>values</b>	<a href="#">Value[]</a>	A data set that contains <b>datum</b> .

Table 7.355. Links summary

Name	Type	Summary
<b>brick</b>	<a href="#">GlusterBrick</a>	
<b>disk</b>	<a href="#">Disk</a>	A relationship to the containing <b>disk</b> resource.
<b>gluster_volume</b>	<a href="#">GlusterVolume</a>	
<b>host</b>	<a href="#">Host</a>	
<b>host_nic</b>	<a href="#">HostNic</a>	A reference to the host NIC.
<b>host_numa_node</b>	<a href="#">NumaNode</a>	
<b>nic</b>	<a href="#">Nic</a>	

Name	Type	Summary
<b>step</b>	<a href="#">Step</a>	
<b>vm</b>	<a href="#">Vm</a>	

## 7.274. STATISTICKIND ENUM

Table 7.356. Values summary

Name	Summary
<b>counter</b>	
<b>gauge</b>	

## 7.275. STATISTICUNIT ENUM

Table 7.357. Values summary

Name	Summary
<b>bits_per_second</b>	
<b>bytes</b>	
<b>bytes_per_second</b>	
<b>count_per_second</b>	
<b>none</b>	
<b>percent</b>	
<b>seconds</b>	

## 7.276. STEP STRUCT

Represents a step, which is part of **job** execution. Step is used to describe and track a specific execution unit which is part of a wider sequence. Some steps support reporting their progress.

Table 7.358. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>end_time</b>	Date	The end time of the step.
<b>external</b>	Boolean	Indicates if the step is originated by an external system.
<b>external_type</b>	ExternalSystemType	The external system which is referenced by the step.
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.
<b>number</b>	Integer	The order of the step in current hierarchy level.
<b>progress</b>	Integer	The step progress (if reported) in percentages.
<b>start_time</b>	Date	The start time of the step.
<b>status</b>	StepStatus	The status of the step.
<b>type</b>	StepEnum	The type of the step.

### 7.276.1. external

Indicates if the step is originated by an external system. External steps are managed externally, by the creator of the step.

Table 7.359. Links summary

Name	Type	Summary
<b>execution_host</b>	Host	The host used for the step execution (optional).
<b>job</b>	Job	References the <b>job</b> which is the top of the current step hierarchy.
<b>parent_step</b>	Step	References the parent step of the current step in the hierarchy.
<b>statistics</b>	Statistic[]	

### 7.277. STEPENUM ENUM

Type representing a step type.

**Table 7.360. Values summary**

Name	Summary
<b>executing</b>	The executing step type.
<b>finalizing</b>	The finalizing step type.
<b>rebalancing_volume</b>	The <b>rebalancing volume</b> step type.
<b>removing_bricks</b>	The <b>removing bricks</b> step type.
<b>unknown</b>	The unknown step type.
<b>validating</b>	The validation step type.

### 7.277.1. executing

The executing step type. Used to track the main execution block of the job. Usually it will be a parent step of several sub-steps which describe portions of the execution step.

### 7.277.2. finalizing

The finalizing step type. Describes the post-execution steps requires to complete the **job**.

### 7.277.3. rebalancing\_volume

The **rebalancing volume** step type. Describes a step type which is part of **Gluster** flow.

### 7.277.4. removing\_bricks

The **removing bricks** step type. Describes a step type which is part of **Gluster** flow.

### 7.277.5. unknown

The unknown step type. Describes a step type which its origin is unknown.

### 7.277.6. validating

The validation step type. Used to verify the correctness of parameters and the validity of the parameters prior to the execution.

## 7.278. STEPSTATUS ENUM

Represents the status of the step.

Table 7.361. Values summary

Name	Summary
<b>aborted</b>	The aborted step status.
<b>failed</b>	The failed step status.
<b>finished</b>	The finished step status.
<b>started</b>	The started step status.
<b>unknown</b>	The unknown step status.

### 7.278.1. aborted

The aborted step status. This status is applicable for an external step that was forcibly aborted.

### 7.278.2. finished

The finished step status. This status describes a completed step execution.

### 7.278.3. started

The started step status. This status represents a step which is currently being executed.

### 7.278.4. unknown

The unknown step status. This status represents steps which their resolution is not known, i.e. steps that were executed before the system was unexpectedly restarted.

## 7.279. STORAGECONNECTION STRUCT

Represents a storage server connection.

Example XML representation:

```
<storage_connection id="123">
  <address>my nfs.example.com</address>
  <type>nfs</type>
  <path>/exports/mydata</path>
</storage_connection>
```

Table 7.362. Attributes summary

Name	Type	Summary
<b>address</b>	<code>String</code>	A storage server connection's address.

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>mount_options</b>	<a href="#">String</a>	The mount options of an NFS storage server connection.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>nfs_retrans</b>	<a href="#">Integer</a>	The NFS retrans value of an NFS storage server connection.
<b>nfs_timeo</b>	<a href="#">Integer</a>	The NFS timeo value of an NFS storage server connection.
<b>nfs_version</b>	<a href="#">NfsVersion</a>	The NFS version of an NFS storage server connection.
<b>password</b>	<a href="#">String</a>	The password of an iSCSI storage server connection.
<b>path</b>	<a href="#">String</a>	The path of an NFS storage server connection.
<b>port</b>	<a href="#">Integer</a>	The port of an iSCSI storage server connection.
<b>portal</b>	<a href="#">String</a>	The portal of an iSCSI storage server connection.
<b>target</b>	<a href="#">String</a>	The target of an iSCSI storage server connection.
<b>type</b>	<a href="#">StorageType</a>	A storage server connection's type.
<b>username</b>	<a href="#">String</a>	The user name of an iSCSI storage server connection.
<b>vfs_type</b>	<a href="#">String</a>	The VFS type of an NFS storage server connection.

Table 7.363. Links summary

Name	Type	Summary
<b>gluster_volume</b>	<a href="#">GlusterVolume</a>	Link to the gluster volume, used by that storage domain.
<b>host</b>	<a href="#">Host</a>	

## 7.280. STORAGECONNECTIONEXTENSION STRUCT

Table 7.364. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.
<b>password</b>	String	
<b>target</b>	String	
<b>username</b>	String	

Table 7.365. Links summary

Name	Type	Summary
<b>host</b>	Host	

## 7.281. STORAGEDOMAIN STRUCT

Storage domain.

An XML representation of a NFS storage domain with identifier **123**:

```
<storage_domain href="/ovirt-engine/api/storagedomains/123" id="123">
  <name>mydata</name>
  <description>My data</description>
  <available>38654705664</available>
  <committed>1073741824</committed>
  <critical_space_action_blocker>5</critical_space_action_blocker>
  <external_status>ok</external_status>
  <master>true</master>
  <storage>
    <address>my nfs.example.com</address>
    <nfs_version>v3</nfs_version>
    <path>/exports/mydata</path>
    <type>nfs</type>
  </storage>
  <storage_format>v3</storage_format>
  <type>data</type>
  <used>13958643712</used>
  <warning_low_space_indicator>10</warning_low_space_indicator>
  <wipe_after_delete>false</wipe_after_delete>
  <data_centers>
```

```

<data_center href="/ovirt-engine/api/datacenters/456" id="456"/>
</data_centers>
</storage_domain>

```

Table 7.366. Attributes summary

Name	Type	Summary
<b>available</b>	Integer	
<b>backup</b>	Boolean	This attribute indicates whether a data storage domain is used as backup domain or not.
<b>block_size</b>	Integer	Specifies block size in bytes for a storage domain.
<b>comment</b>	String	Free text containing comments about this object.
<b>committed</b>	Integer	
<b>critical_space_acion_blocker</b>	Integer	
<b>description</b>	String	A human-readable description in plain text.
<b>discard_after_delete</b>	Boolean	Indicates whether <a href="#">disks'</a> blocks on block <a href="#">storage domains</a> will be discarded right before they are deleted.
<b>external_status</b>	ExternalStatus	
<b>id</b>	String	A unique identifier.
<b>import</b>	Boolean	
<b>master</b>	Boolean	
<b>name</b>	String	A human-readable name in plain text.
<b>status</b>	StorageDomainStatus	
<b>storage</b>	HostStorage	
<b>storage_format</b>	StorageFormat	
<b>supports_discard</b>	Boolean	Indicates whether a block storage domain supports discard operations.
<b>supports_discard_zeroes_data</b>	Boolean	Indicates whether a block storage domain supports the property that discard zeroes the data.

Name	Type	Summary
<b>type</b>	StorageDomainType	
<b>used</b>	Integer	
<b>warning_low_space_indicator</b>	Integer	
<b>wipe_after_delete</b>	Boolean	Serves as the default value of <b>wipe_after_delete</b> for <a href="#">disks</a> on this <a href="#">storage domain</a> .

### 7.281.1. backup

This attribute indicates whether a data storage domain is used as backup domain or not. If the domain is set to backup then it will be used to store virtual machines and templates for disaster recovery purposes in the same way we use export storage domain. This attribute is only available with data storage domain and not with ISO domain or export storage domain. User can use this functionality while creating a data storage domain or importing a data storage domain.

### 7.281.2. block\_size

Specifies block size in bytes for a storage domain. Can be omitted and in that case will be defaulted to 512 bytes. Not all storage domains support all possible sizes.

### 7.281.3. discard\_after\_delete

Indicates whether [disks](#)' blocks on block [storage domains](#) will be discarded right before they are deleted.

If true, and a disk on this storage domain has its **wipe\_after\_delete** value enabled, then when the disk is deleted:

1. It is first wiped.
2. Then its blocks are discarded.
3. Finally it is deleted.

Note that:

- Discard after delete will always be **false** for non block storage types.
- Discard after delete can be set to **true** only if the storage domain [supports discard](#).

### 7.281.4. supports\_discard

Indicates whether a block storage domain supports discard operations. A [storage domain](#) only supports discard if all of the [logical units](#) that it is built from support discard; that is, if each logical unit's **discard\_max\_size** value is greater than 0. This is one of the conditions necessary for a virtual disk in this storage domain to have its **pass\_discard** attribute enabled.

### 7.281.5. supports\_discard\_zeroes\_data

Indicates whether a block storage domain supports the property that discard zeroes the data. A [storage domain](#) only supports the property that discard zeroes the data if all of the [logical units](#) that it is built from support it; that is, if each logical unit's **discard\_zeroes\_data** value is true.



#### IMPORTANT

Since version 4.2.1 of the system, the support for this attribute has been removed as the sysfs file, **discard\_zeroes\_data**, was deprecated in the kernel. It is preserved for backwards compatibility, but the value will always be **false**.

### 7.281.6. wipe\_after\_delete

Serves as the default value of **wipe\_after\_delete** for [disks](#) on this [storage domain](#).

That is, newly created disks will get their **wipe\_after\_delete** value from their storage domains by default. Note that the configuration value **SANWipeAfterDelete** serves as the default value of block storage domains' **wipe\_after\_delete** value.

Table 7.367. Links summary

Name	Type	Summary
<b>data_center</b>	<a href="#">DataCenter</a>	A link to the data center that the storage domain is attached to.
<b>data_centers</b>	<a href="#">DataCenter[]</a>	A set of links to the data centers that the storage domain is attached to.
<b>disk_profiles</b>	<a href="#">DiskProfile[]</a>	
<b>disk_snapshots</b>	<a href="#">DiskSnapshot[]</a>	
<b>disks</b>	<a href="#">Disk[]</a>	
<b>files</b>	<a href="#">File[]</a>	
<b>host</b>	<a href="#">Host</a>	Host is only relevant at creation time.
<b>images</b>	<a href="#">Image[]</a>	
<b>permissions</b>	<a href="#">Permission[]</a>	
<b>storage_connections</b>	<a href="#">StorageConnection[]</a>	
<b>templates</b>	<a href="#">Template[]</a>	
<b>vms</b>	<a href="#">Vm[]</a>	

### 7.281.7. data\_center

A link to the data center that the storage domain is attached to. This is preserved for backwards compatibility only, as the storage domain may be attached to multiple data centers (if it is an ISO domain). Use the **dataCenters** element instead.

## 7.282. STORAGEDOMAINLEASE STRUCT

Represents a lease residing on a storage domain.

A lease is a [Sanlock](#) resource residing on a special volume on the storage domain, this Sanlock resource is used to provide storage base locking.

Table 7.368. Links summary

Name	Type	Summary
<b>storage_domain</b>	<a href="#">StorageDomain</a>	Reference to the storage domain on which the lock resides on.

## 7.283. STORAGEDOMAINSTATUS ENUM

Table 7.369. Values summary

Name	Summary
<b>activating</b>	
<b>active</b>	
<b>detaching</b>	
<b>inactive</b>	
<b>locked</b>	
<b>maintenance</b>	
<b>mixed</b>	
<b>preparing_for_maintenance</b>	
<b>unattached</b>	
<b>unknown</b>	

## 7.284. STORAGEDOMAINSTYPE ENUM

Indicates the kind of data managed by a [storage domain](#).

Table 7.370. Values summary

Name	Summary
<b>data</b>	Data domains are used to store the disks and snapshots of the virtual machines and templates in the system.
<b>export</b>	Export domains are temporary storage repositories used to copy and move virtual machines and templates between data centers and Red Hat Virtualization environments.
<b>image</b>	Image domain store images that can be imported into from an external system.
<b>iso</b>	ISO domains store ISO files (or logical CDs) used to install and boot operating systems and applications for the virtual machines.
<b>managed_block_storage</b>	Managed block storage domains are created on block storage devices.
<b>volume</b>	Volume domains store logical volumes that can be used as disks for virtual machines.

### 7.284.1. data

Data domains are used to store the disks and snapshots of the virtual machines and templates in the system. In addition, snapshots of the disks are also stored in data domains. Data domains cannot be shared across data centers.

### 7.284.2. export

Export domains are temporary storage repositories used to copy and move virtual machines and templates between data centers and Red Hat Virtualization environments. Export domains can also be used to backup virtual machines. An export domain can be moved between data centers but it can only be active in one data center at a time.

### 7.284.3. image

Image domain store images that can be imported into from an external system. For example, images from an OpenStack Glance image repository.

### 7.284.4. iso

ISO domains store ISO files (or logical CDs) used to install and boot operating systems and applications for the virtual machines. ISO domains remove the data center's need for physical media. An ISO domain can be shared across different data centers.

### 7.284.5. managed\_block\_storage

Managed block storage domains are created on block storage devices. These domains are accessed and managed by cinder.

### 7.284.6. volume

Volume domains store logical volumes that can be used as disks for virtual machines. For example, volumes from an OpenStack Cinder block storage service.

## 7.285. STORAGEFORMAT ENUM

Type which represents a format of [storage domain](#).

Table 7.371. Values summary

Name	Summary
<b>v1</b>	Version 1 of the storage domain format is applicable to NFS, iSCSI and FC storage domains.
<b>v2</b>	Version 2 of the storage domain format is applicable to iSCSI and FC storage domains.
<b>v3</b>	Version 3 of the storage domain format is applicable to NFS, POSIX, iSCSI and FC storage domains.
<b>v4</b>	Version 4 of the storage domain format.
<b>v5</b>	Version 5 of the storage domain format is applicable to NFS, POSIX, and Gluster storage domains.

### 7.285.1. v1

Version 1 of the storage domain format is applicable to NFS, iSCSI and FC storage domains.

Each storage domain contains metadata describing its own structure, and all of the names of physical volumes that are used to back virtual machine disk images. Master domains additionally contain metadata for all the domains and physical volume names in the storage pool. The total size of this metadata is limited to 2 KiB, limiting the number of storage domains that can be in a pool. Template and virtual machine base images are read only.

### 7.285.2. v2

Version 2 of the storage domain format is applicable to iSCSI and FC storage domains.

All storage domain and pool metadata is stored as logical volume tags rather than written to a logical volume. Metadata about virtual machine disk volumes is still stored in a logical volume on the domains. Physical volume names are no longer included in the metadata. Template and virtual machine base images are read only.

### 7.285.3. v3

Version 3 of the storage domain format is applicable to NFS, POSIX, iSCSI and FC storage domains.

All storage domain and pool metadata is stored as logical volume tags rather than written to a logical volume. Metadata about virtual machine disk volumes is still stored in a logical volume on the domains. Virtual machine and template base images are no longer read only. This change enables live snapshots, live storage migration, and clone from snapshot. Support for Unicode metadata is added, for non-English volume names.

## 7.285.4. v5

Version 5 of the storage domain format is applicable to NFS, POSIX, and Gluster storage domains.

Added support for 4096 bytes block sizes and variable sanlock alignments.

## 7.286. STORAGETYPE ENUM

Type representing a storage domain type.

Table 7.372. Values summary

Name	Summary
<b>cinder</b>	Cinder storage domain.
<b>fcp</b>	Fibre-Channel storage domain.
<b>glance</b>	Glance storage domain.
<b>glusterfs</b>	Gluster-FS storage domain.
<b>iscsi</b>	iSCSI storage domain.
<b>localfs</b>	Storage domain on Local storage.
<b>managed_block_storage</b>	Managed block storage domain.
<b>nfs</b>	NFS storage domain.
<b>posixfs</b>	POSIX-FS storage domain.

### 7.286.1. cinder

Cinder storage domain. For more details on Cinder please go to [Cinder](#).

### 7.286.2. glance

Glance storage domain. For more details on Glance please go to [Glance](#).

### 7.286.3. glusterfs

Gluster-FS storage domain. For more details on Gluster please go to [Gluster](#).

### 7.286.4. managed\_block\_storage

Managed block storage domain. A storage domain managed using cinderlib. For supported storage drivers, see [Available Drivers](#).

## 7.287. SWITCHTYPE ENUM

Describes all switch types supported by the Manager.

Table 7.373. Values summary

Name	Summary
<b>legacy</b>	The native switch type.
<b>ovs</b>	The Open vSwitch type.

## 7.288. SYSTEMOPTION STRUCT

Type representing a configuration option of the system.

Table 7.374. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>values</b>	<a href="#">SystemOptionValue[]</a>	Values of the option for various system versions.

## 7.289. SYSTEMOPTIONVALUE STRUCT

Type representing a pair of value and version of a configuration option.

Table 7.375. Attributes summary

Name	Type	Summary
<b>value</b>	<a href="#">String</a>	Configuration option's value for specific version.
<b>version</b>	<a href="#">String</a>	Configuration option's version.

## 7.290. TAG STRUCT

Represents a tag in the system.

Table 7.376. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.

Table 7.377. Links summary

Name	Type	Summary
<b>group</b>	Group	Reference to the group which has this tag assigned.
<b>host</b>	Host	Reference to the host which has this tag assigned.
<b>parent</b>	Tag	Reference to the parent tag of this tag.
<b>template</b>	Template	Reference to the template which has this tag assigned.
<b>user</b>	User	Reference to the user who has this tag assigned.
<b>vm</b>	Vm	Reference to the virtual machine which has this tag assigned.

## 7.291. TEMPLATE STRUCT

The type that represents a virtual machine template. Templates allow for a rapid instantiation of virtual machines with common configuration and disk states.

Table 7.378. Attributes summary

Name	Type	Summary
<b>auto_pinning_policy</b>	AutoPinningPolicy	Specifies if and how the auto CPU and NUMA configuration is applied.
<b>bios</b>	Bios	Reference to virtual machine's BIOS configuration.
<b>comment</b>	String	Free text containing comments about this object.
<b>console</b>	Console	Console configured for this virtual machine.
<b>cpu</b>	Cpu	The configuration of the virtual machine CPU.

Name	Type	Summary
<b>cpu_pinning_policy</b>	<a href="#">CpuPinningPolicy</a>	Specifies if and how the CPU and NUMA configuration is applied.
<b>cpu_shares</b>	<a href="#">Integer</a>	
<b>creation_time</b>	<a href="#">Date</a>	The virtual machine creation date.
<b>custom_compatibility_version</b>	<a href="#">Version</a>	Virtual machine custom compatibility version.
<b>custom_cpu_model</b>	<a href="#">String</a>	
<b>custom_emulated_machine</b>	<a href="#">String</a>	
<b>custom_properties</b>	<a href="#">CustomProperty[]</a>	Properties sent to VDSM to configure various hooks.
<b>delete_protected</b>	<a href="#">Boolean</a>	If <b>true</b> , the virtual machine cannot be deleted.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>display</b>	<a href="#">Display</a>	The virtual machine display configuration.
<b>domain</b>	<a href="#">Domain</a>	Domain configured for this virtual machine.
<b>high_availability</b>	<a href="#">HighAvailability</a>	The virtual machine high availability configuration.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>initialization</b>	<a href="#">Initialization</a>	Reference to the virtual machine's initialization configuration.
<b>io</b>	<a href="#">Io</a>	For performance tuning of IO threading.
<b>large_icon</b>	<a href="#">Icon</a>	Virtual machine's large icon.
<b>lease</b>	<a href="#">StorageDomainLease</a>	Reference to the storage domain this virtual machine/template lease reside on.
<b>memory</b>	<a href="#">Integer</a>	The virtual machine's memory, in bytes.

Name	Type	Summary
<b>memory_policy</b>	<a href="#">MemoryPolicy</a>	Reference to virtual machine's memory management configuration.
<b>migration</b>	<a href="#">MigrationOptions</a>	Reference to configuration of migration of a running virtual machine to another host.
<b>migration_down_time</b>	<a href="#">Integer</a>	Maximum time the virtual machine can be non responsive during its live migration to another host in ms.
<b>multi_queues_enabled</b>	<a href="#">Boolean</a>	If <b>true</b> , each virtual interface will get the optimal number of queues, depending on the available virtual Cpus.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>origin</b>	<a href="#">String</a>	The origin of this virtual machine.
<b>os</b>	<a href="#">OperatingSystem</a>	Operating system type installed on the virtual machine.
<b>placement_policy</b>	<a href="#">VmPlacementPolicy</a>	The configuration of the virtual machine's placement policy.
<b>rng_device</b>	<a href="#">RngDevice</a>	Random Number Generator device configuration for this virtual machine.
<b>serial_number</b>	<a href="#">SerialNumber</a>	Virtual machine's serial number in a cluster.
<b>small_icon</b>	<a href="#">Icon</a>	Virtual machine's small icon.
<b>soundcard_enabled</b>	<a href="#">Boolean</a>	If <b>true</b> , the sound card is added to the virtual machine.
<b>sso</b>	<a href="#">Sso</a>	Reference to the Single Sign On configuration this virtual machine is configured for.
<b>start_paused</b>	<a href="#">Boolean</a>	If <b>true</b> , the virtual machine will be initially in 'paused' state after start.
<b>stateless</b>	<a href="#">Boolean</a>	If <b>true</b> , the virtual machine is stateless - it's state (disks) are rolled-back after shutdown.
<b>status</b>	<a href="#">TemplateStatus</a>	The status of the template.
<b>storage_error_resume_behaviour</b>	<a href="#">VmStorageErrorResumeBehaviour</a>	Determines how the virtual machine will be resumed after storage error.

Name	Type	Summary
<b>time_zone</b>	TimeZone	The virtual machine's time zone set by oVirt.
<b>tpm_enabled</b>	Boolean	If <b>true</b> , a TPM device is added to the virtual machine.
<b>tunnel_migration</b>	Boolean	If <b>true</b> , the network data transfer will be encrypted during virtual machine live migration.
<b>type</b>	VmType	Determines whether the virtual machine is optimized for desktop or server.
<b>usb</b>	Usb	Configuration of USB devices for this virtual machine (count, type).
<b>version</b>	TemplateVersion	Indicates whether this is the base version or a sub-version of another template.
<b>virtio_scsi</b>	VirtioScsi	Reference to VirtIO SCSI configuration.
<b>virtio_scsi_multi_queues</b>	Integer	Number of queues for a Virtio-SCSI controller this field requires virtioScsiMultiQueuesEnabled to be true see virtioScsiMultiQueuesEnabled for more info
<b>virtio_scsi_multi_queues_enabled</b>	Boolean	If <b>true</b> , the Virtio-SCSI devices will obtain a number of multiple queues depending on the available virtual Cpus and disks, or according to the specified virtioScsiMultiQueues.
<b>vm</b>	Vm	The virtual machine configuration associated with this template.

### 7.291.1. auto\_pinning\_policy

Specifies if and how the auto CPU and NUMA configuration is applied.



#### IMPORTANT

Since version 4.5 of the engine this operation is deprecated, and preserved only for backwards compatibility. It might be removed in the future. Please use CpuPinningPolicy instead.

### 7.291.2. cpu

The configuration of the virtual machine CPU.

The socket configuration can be updated without rebooting the virtual machine. The cores and the threads require a reboot.

For example, to change the number of sockets to 4 immediately, and the number of cores and threads to 2 after reboot, send the following request:

```
PUT /ovirt-engine/api/vms/123
```

With a request body:

```
<vm>
  <cpu>
    <topology>
      <sockets>4</sockets>
      <cores>2</cores>
      <threads>2</threads>
    </topology>
  </cpu>
</vm>
```

### 7.291.3. cpu\_pinning\_policy

Specifies if and how the CPU and NUMA configuration is applied. When not specified the previous behavior of CPU pinning string will determine CpuPinningPolicy to None or Manual.

### 7.291.4. custom\_compatibility\_version

Virtual machine custom compatibility version.

Enables a virtual machine to be customized to its own compatibility version. If **custom\_compatibility\_version** is set, it overrides the cluster's compatibility version for this particular virtual machine.

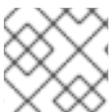
The compatibility version of a virtual machine is limited by the data center the virtual machine resides in, and is checked against capabilities of the host the virtual machine is planned to run on.

### 7.291.5. high\_availability

The virtual machine high availability configuration. If set, the virtual machine will be automatically restarted when it unexpectedly goes down.

### 7.291.6. initialization

Reference to the virtual machine's initialization configuration.



#### NOTE

Since Red Hat Virtualization 4.1.8 this property can be cleared by sending an empty tag.

For example, to clear the **initialization** attribute send a request like this:

```
PUT /ovirt-engine/api/vms/123
```

With a request body like this:

```
<vm>
  <initialization/>
</vm>
```

The response to such a request, and requests with the header **All-Content: true** will still contain this attribute.

### 7.291.7. large\_icon

Virtual machine's large icon. Either set by user or refers to image set according to operating system.

### 7.291.8. lease

Reference to the storage domain this virtual machine/template lease reside on.

A virtual machine running with a lease requires checking while running that the lease is not taken by another host, preventing another instance of this virtual machine from running on another host. This provides protection against split-brain in highly available virtual machines. A template can also have a storage domain defined for a lease in order to have the virtual machines created from this template to be preconfigured with this storage domain as the location of the leases.

### 7.291.9. memory

The virtual machine's memory, in bytes.

For example, to update a virtual machine to contain 1 Gibibyte (GiB) of memory, send the following request:

```
PUT /ovirt-engine/api/vms/123
```

With the following request body:

```
<vm>
  <memory>1073741824</memory>
</vm>
```

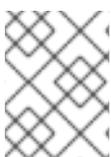
Memory hot plug is supported from Red Hat Virtualization 3.6 onwards. You can use the example above to increase memory while the virtual machine is in state **up**. The size increment must be dividable by the value of the **HotPlugMemoryBlockSizeMb** configuration value (256 MiB by default). If the memory size increment is not dividable by this value, the memory size change is only stored to next run configuration. Each successful memory hot plug operation creates one or two new memory devices.

Memory hot unplug is supported since Red Hat Virtualization 4.2 onwards. Memory hot unplug can only be performed when the virtual machine is in state **up**. Only previously hot plugged memory devices can be removed by the hot unplug operation. The requested memory decrement is rounded down to match sizes of a combination of previously hot plugged memory devices. The requested memory value is stored to next run configuration without rounding.



#### NOTE

Memory in the example is converted to bytes using the following formula:  
 $1 \text{ GiB} = 2^{30} \text{ bytes} = 1073741824 \text{ bytes}.$



#### NOTE

Red Hat Virtualization Manager internally rounds values down to whole MiBs ( $1 \text{ MiB} = 2^{20} \text{ bytes}$ )

## 7.291.10. migration

Reference to configuration of migration of a running virtual machine to another host.



### NOTE

API for querying migration policy by ID returned by this method is not implemented yet. Use **/ovirt-engine/api/options/MigrationPolicies** to get a list of all migration policies with their IDs.

## 7.291.11. migration\_downtime

Maximum time the virtual machine can be non responsive during its live migration to another host in ms.

Set either explicitly for the virtual machine or by **engine-config -s DefaultMaximumMigrationDowntime=[value]**

## 7.291.12. origin

The origin of this virtual machine.

Possible values:

- **ovirt**
- **rhev**
- **vmware**
- **xen**
- **external**
- **hosted\_engine**
- **managed\_hosted\_engine**
- **kvm**
- **physical\_machine**
- **hyperv**

## 7.291.13. placement\_policy

The configuration of the virtual machine's placement policy.

This configuration can be updated to pin a virtual machine to one or more hosts.



### NOTE

Virtual machines that are pinned to multiple hosts cannot be live migrated, but in the event of a host failure, any virtual machine configured to be highly available is automatically restarted on one of the other hosts to which the virtual machine is pinned.

For example, to pin a virtual machine to two hosts, send the following request:

```
PUT /api/vms/123
```

With a request body like this:

```
<vm>
  <high_availability>
    <enabled>true</enabled>
    <priority>1</priority>
  </high_availability>
  <placement_policy>
    <hosts>
      <host>
        <name>Host1</name>
      </host>
      <host>
        <name>Host2</name>
      </host>
    </hosts>
    <affinity>pinned</affinity>
  </placement_policy>
</vm>
```

#### 7.291.14. small\_icon

Virtual machine's small icon. Either set by user or refers to image set according to operating system.

#### 7.291.15. sso

Reference to the Single Sign On configuration this virtual machine is configured for. The user can be automatically signed in the virtual machine's operating system when console is opened.

#### 7.291.16. tpm\_enabled

If **true**, a TPM device is added to the virtual machine. By default the value is **false**. This property is only visible when fetching if "All-Content=true" header is set.

Table 7.379. Links summary

Name	Type	Summary
<b>cdroms</b>	<a href="#">Cdrom[]</a>	Reference to the CD-ROM devices attached to the template.
<b>cluster</b>	<a href="#">Cluster</a>	Reference to cluster the virtual machine belongs to.
<b>cpu_profile</b>	<a href="#">CpuProfile</a>	Reference to CPU profile used by this virtual machine.
<b>disk_attachments</b>	<a href="#">DiskAttachment[]</a>	Reference to the disks attached to the template.

Name	Type	Summary
<b>graphics_consoles</b>	<a href="#">GraphicsConsole[]</a>	Reference to the graphic consoles attached to the template.
<b>mediated_devices</b>	<a href="#">VmMediatedDevice[]</a>	Mediated devices configuration.
<b>nics</b>	<a href="#">Nic[]</a>	Reference to the network interfaces attached to the template.
<b>permissions</b>	<a href="#">Permission[]</a>	Reference to the user permissions attached to the template.
<b>quota</b>	<a href="#">Quota</a>	Reference to quota configuration set for this virtual machine.
<b>storage_domain</b>	<a href="#">StorageDomain</a>	Reference to storage domain the virtual machine belongs to.
<b>tags</b>	<a href="#">Tag[]</a>	Reference to the tags attached to the template.
<b>watchdogs</b>	<a href="#">Watchdog[]</a>	Reference to the watchdog devices attached to the template.

## 7.292. TEMPLATESTATUS ENUM

Type representing a status of a virtual machine template.

Table 7.380. Values summary

Name	Summary
<b>illegal</b>	This status indicates that at least one of the disks of the template is illegal.
<b>locked</b>	This status indicates that some operation that prevents other operations with the template is being executed.
<b>ok</b>	This status indicates that the template is valid and ready for use.

## 7.293. TEMPLATEVERSION STRUCT

Type representing a version of a virtual machine template.

Table 7.381. Attributes summary

Name	Type	Summary
<b>version_name</b>	<a href="#">String</a>	The name of this version.
<b>version_number</b>	<a href="#">Integer</a>	The index of this version in the versions hierarchy of the template.

### 7.293.1. version\_number

The index of this version in the versions hierarchy of the template. The index 1 represents the original version of a template that is also called base version.

Table 7.382. Links summary

Name	Type	Summary
<b>base_template</b>	<a href="#">Template</a>	References the template that this version is associated with.

## 7.294. TICKET STRUCT

Type representing a ticket that allows virtual machine access.

Table 7.383. Attributes summary

Name	Type	Summary
<b>expiry</b>	<a href="#">Integer</a>	Time to live for the ticket in seconds.
<b>value</b>	<a href="#">String</a>	The virtual machine access ticket.

## 7.295. TIMEZONE STRUCT

Time zone representation.

Table 7.384. Attributes summary

Name	Type	Summary
<b>name</b>	<a href="#">String</a>	Name of the time zone.
<b>utc_offset</b>	<a href="#">String</a>	UTC offset.

### 7.295.1. utc\_offset

UTC offset.

Offset from [UTC](#).

## 7.296. TPMSUPPORT ENUM

Table 7.385. Values summary

Name	Summary
<b>required</b>	TPM is required by the operating system

Name	Summary
<b>supported</b>	TPM is supported but optional
<b>unsupported</b>	

## 7.297. TRANSPARENTHUGEPAGES STRUCT

Type representing a transparent huge pages (THP) support.

Table 7.386. Attributes summary

Name	Type	Summary
<b>enabled</b>	<a href="#">Boolean</a>	Enable THP support.

## 7.298. TRANSPORTTYPE ENUM

Protocol used to access a Gluster volume.

Table 7.387. Values summary

Name	Summary
<b>rdma</b>	Remote direct memory access.
<b>tcp</b>	TCP.

## 7.299. UNMANAGEDNETWORK STRUCT

Table 7.388. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.

Table 7.389. Links summary

Name	Type	Summary
<b>host</b>	Host	
<b>host_nic</b>	HostNic	

## 7.300. USB STRUCT

Configuration of the USB device of a virtual machine.

Table 7.390. Attributes summary

Name	Type	Summary
<b>enabled</b>	Boolean	Determines whether the USB device should be included or not.
<b>type</b>	UsbType	USB type, currently only <b>native</b> is supported.

## 7.301. USBTYPE ENUM

Type of USB device redirection.

Table 7.391. Values summary

Name	Summary
<b>legacy</b>	Legacy USB redirection.
<b>native</b>	Native USB redirection.

### 7.301.1. legacy

Legacy USB redirection.

This USB type has been deprecated since version 3.6 of the engine, and has been completely removed in version 4.1. It is preserved only to avoid syntax errors in existing scripts. If it is used it will be automatically replaced by **native**.

### 7.301.2. native

Native USB redirection.

Native USB redirection allows KVM/SPICE USB redirection for Linux and Windows virtual machines. Virtual (guest) machines require no guest-installed agents or drivers for native USB. On Linux clients, all packages required for USB redirection are provided by the **virt-viewer** package. On Windows clients, you must also install the **usbdk** package.

## 7.302. USER STRUCT

Represents a user in the system.

**Table 7.392. Attributes summary**

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>department</b>	String	
<b>description</b>	String	A human-readable description in plain text.
<b>domain_entry_id</b>	String	
<b>email</b>	String	
<b>id</b>	String	A unique identifier.
<b>last_name</b>	String	
<b>logged_in</b>	Boolean	
<b>name</b>	String	A human-readable name in plain text.
<b>namespace</b>	String	Namespace where the user resides.
<b>password</b>	String	
<b>principal</b>	String	Similar to <b>user_name</b> .
<b>user_name</b>	String	The user's username.
<b>user_options</b>	Property[]	User options allow you to save key/value properties which are used to customize the settings per individual user.

### 7.302.1. namespace

Namespace where the user resides. When using the authorization provider that stores users in the LDAP server, this attribute equals the naming context of the LDAP server. See [oVirt Engine Extension AAA LDAP](#) for more information. When using the built-in authorization provider that stores users in the database this attribute is ignored. See [oVirt Engine extension - AAA - JDBC](#) for more information.

### 7.302.2. principal

Similar to **user\_name**. The format depends on the LDAP provider. With most LDAP providers it is the value of the **uid** LDAP attribute. In the case of Active Directory it is the User Principal Name (UPN).

### 7.302.3. user\_name

The user's username. The format depends on authorization provider type. In most LDAP providers it is the value of the **uid** LDAP attribute. In Active Directory it is the User Principal Name (UPN). **UPN** or **uid** must be followed by the authorization provider name. For example, in the case of LDAP's **uid** attribute it is: **myuser@myextension-authz**. In the case of Active Directory using **UPN** it is: **myuser@mysubdomain.mydomain.com@myextension-authz**. This attribute is a required parameter when adding a new user.

#### 7.302.4. user\_options

User options allow you to save key/value properties which are used to customize the settings per individual user. Note that since version 4.4.5 this property is deprecated and preserved only for backwards compatibility. It will be removed in the future. Please use the [options](#) endpoint instead.

Table 7.393. Links summary

Name	Type	Summary
<b>domain</b>	<a href="#">Domain</a>	
<b>groups</b>	<a href="#">Group[]</a>	
<b>options</b>	<a href="#">UserOption[]</a>	
<b>permissions</b>	<a href="#">Permission[]</a>	
<b>roles</b>	<a href="#">Role[]</a>	A link to the roles sub-collection for user resources.
<b>ssh_public_keys</b>	<a href="#">SshPublicKey[]</a>	
<b>tags</b>	<a href="#">Tag[]</a>	A link to the tags sub-collection for user resources.

#### 7.303. USEROPTION STRUCT

User options allow you to save key/value properties which are used to customize the settings per individual user.

Table 7.394. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>content</b>	<a href="#">String</a>	JSON content encoded as string.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.

Name	Type	Summary
<b>name</b>	String	A human-readable name in plain text.

### 7.303.1. content

JSON content encoded as string. Any valid JSON is supported.

Table 7.395. Links summary

Name	Type	Summary
<b>user</b>	User	

## 7.304. VALUE STRUCT

Table 7.396. Attributes summary

Name	Type	Summary
<b>datum</b>	Decimal	
<b>detail</b>	String	

## 7.305. VALUETYPE ENUM

Table 7.397. Values summary

Name	Summary
<b>decimal</b>	
<b>integer</b>	
<b>string</b>	

## 7.306. VCPUPIN STRUCT

Table 7.398. Attributes summary

Name	Type	Summary
<b>cpu_set</b>	String	
<b>vcpu</b>	Integer	

## 7.307. VENDOR STRUCT

Table 7.399. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>name</b>	String	A human-readable name in plain text.

## 7.308. VERSION STRUCT

Table 7.400. Attributes summary

Name	Type	Summary
<b>build</b>	Integer	
<b>comment</b>	String	Free text containing comments about this object.
<b>description</b>	String	A human-readable description in plain text.
<b>full_version</b>	String	
<b>id</b>	String	A unique identifier.
<b>major</b>	Integer	
<b>minor</b>	Integer	
<b>name</b>	String	A human-readable name in plain text.
<b>revision</b>	Integer	

## 7.309. VGPUPLACEMENT ENUM

The vGPU placement strategy.

It can either put vGPUs on the first available physical cards, or spread them over multiple physical cards.

Table 7.401. Values summary

Name	Summary
<b>consolidated</b>	Use consolidated placement.
<b>separated</b>	Use separated placement.

### 7.309.1. consolidated

Use consolidated placement. Each vGPU is placed on the first physical card with available space.

This is the default placement, utilizing all available space on the physical cards.

### 7.309.2. separated

Use separated placement. Each vGPU is placed on a separate physical card, if possible.

This can be useful for improving vGPU performance.

## 7.310. VIRTIO SCSI STRUCT

Type representing the support of virtio-SCSI. If it supported we use virtio driver for SCSI guest device.

Table 7.402. Attributes summary

Name	Type	Summary
<b>enabled</b>	Boolean	Enable Virtio SCSI support.

## 7.311. VIRTUALNUMANODE STRUCT

Represents the virtual NUMA node.

An example XML representation:

```
<vm_numa_node href="/ovirt-engine/api/vms/123/humanodes/456" id="456">
  <cpu>
    <cores>
      <core>
        <index>0</index>
      </core>
    </cores>
  </cpu>
  <index>0</index>
  <memory>1024</memory>
  <numa_node_pins>
    <numa_node_pin>
      <index>0</index>
    </numa_node_pin>
  </numa_node_pins>
</vm_numa_node>
```

```

</numa_node_pins>
<vm href="/ovirt-engine/api/vms/123" id="123" />
</vm_numa_node>

```

Table 7.403. Attributes summary

Name	Type	Summary
<b>comment</b>	String	Free text containing comments about this object.
<b>cpu</b>	Cpu	
<b>description</b>	String	A human-readable description in plain text.
<b>id</b>	String	A unique identifier.
<b>index</b>	Integer	
<b>memory</b>	Integer	Memory of the NUMA node in MB.
<b>name</b>	String	A human-readable name in plain text.
<b>node_distance</b>	String	
<b>numa_node_pins</b>	NumaNodePin[]	
<b>numa_tune_mode</b>	NumaTuneMode	How the NUMA topology is applied.

Table 7.404. Links summary

Name	Type	Summary
<b>host</b>	Host	
<b>statistics</b>	Statistic[]	Each host NUMA node resource exposes a statistics sub-collection for host NUMA node specific statistics.
<b>vm</b>	Vm	

### 7.311.1. statistics

Each host NUMA node resource exposes a statistics sub-collection for host NUMA node specific statistics.

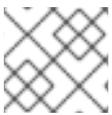
An example of an XML representation:

```
<statistics>
```

```

<statistic href="/ovirt-engine/api/hosts/123/numanodes/456/statistics/789" id="789">
  <name>memory.total</name>
  <description>Total memory</description>
  <kind>gauge</kind>
  <type>integer</type>
  <unit>bytes</unit>
  <values>
    <value>
      <datum>25165824000</datum>
    </value>
  </values>
  <host_numa_node href="/ovirt-engine/api/hosts/123/numanodes/456" id="456" />
</statistic>
...
</statistics>

```

**NOTE**

This statistics sub-collection is read-only.

The following list shows the statistic types for a host NUMA node:

Name	Description
<b>memory.total</b>	Total memory in bytes on the NUMA node.
<b>memory.used</b>	Memory in bytes used on the NUMA node.
<b>memory.free</b>	Memory in bytes free on the NUMA node.
<b>cpu.current.user</b>	Percentage of CPU usage for user slice.
<b>cpu.current.system</b>	Percentage of CPU usage for system.
<b>cpu.current.idle</b>	Percentage of idle CPU usage.

## 7.312. VLAN STRUCT

Type representing a Virtual LAN (VLAN) type.

Table 7.405. Attributes summary

Name	Type	Summary
<b>id</b>	Integer	Virtual LAN ID.

## 7.313. VM STRUCT

Represents a virtual machine.

Table 7.406. Attributes summary

Name	Type	Summary
<b>auto_pinning_policy</b>	<a href="#">AutoPinningPolicy</a>	Specifies if and how the auto CPU and NUMA configuration is applied.
<b>bios</b>	<a href="#">Bios</a>	Reference to virtual machine's BIOS configuration.
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>console</b>	<a href="#">Console</a>	Console configured for this virtual machine.
<b>cpu</b>	<a href="#">Cpu</a>	The configuration of the virtual machine CPU.
<b>cpu_pinning_policy</b>	<a href="#">CpuPinningPolicy</a>	Specifies if and how the CPU and NUMA configuration is applied.
<b>cpu_shares</b>	<a href="#">Integer</a>	
<b>creation_time</b>	<a href="#">Date</a>	The virtual machine creation date.
<b>custom_compatibility_version</b>	<a href="#">Version</a>	Virtual machine custom compatibility version.
<b>custom_cpu_model</b>	<a href="#">String</a>	
<b>custom_emulated_machine</b>	<a href="#">String</a>	
<b>custom_properties</b>	<a href="#">CustomProperty[]</a>	Properties sent to VDSM to configure various hooks.
<b>delete_protected</b>	<a href="#">Boolean</a>	If <b>true</b> , the virtual machine cannot be deleted.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>display</b>	<a href="#">Display</a>	The virtual machine display configuration.
<b>domain</b>	<a href="#">Domain</a>	Domain configured for this virtual machine.
<b>fqdn</b>	<a href="#">String</a>	Fully qualified domain name of the virtual machine.
<b>guest_operating_system</b>	<a href="#">GuestOperatingSystem</a>	What operating system is installed on the virtual machine.

Name	Type	Summary
<b>guest_time_zone</b>	<a href="#">TimeZone</a>	What time zone is used by the virtual machine (as returned by guest agent).
<b>has_illegal_images</b>	<a href="#">Boolean</a>	Indicates whether the virtual machine has snapshots with disks in <b>ILLEGAL</b> state.
<b>high_availability</b>	<a href="#">HighAvailability</a>	The virtual machine high availability configuration.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>initialization</b>	<a href="#">Initialization</a>	Reference to the virtual machine's initialization configuration.
<b>io</b>	<a href="#">Io</a>	For performance tuning of IO threading.
<b>large_icon</b>	<a href="#">Icon</a>	Virtual machine's large icon.
<b>lease</b>	<a href="#">StorageDomainLease</a>	Reference to the storage domain this virtual machine/template lease reside on.
<b>memory</b>	<a href="#">Integer</a>	The virtual machine's memory, in bytes.
<b>memory_policy</b>	<a href="#">MemoryPolicy</a>	Reference to virtual machine's memory management configuration.
<b>migration</b>	<a href="#">MigrationOptions</a>	Reference to configuration of migration of a running virtual machine to another host.
<b>migration_down_time</b>	<a href="#">Integer</a>	Maximum time the virtual machine can be non responsive during its live migration to another host in ms.
<b>multi_queues_enabled</b>	<a href="#">Boolean</a>	If <b>true</b> , each virtual interface will get the optimal number of queues, depending on the available virtual Cpus.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>next_run_configuration_exists</b>	<a href="#">Boolean</a>	Virtual machine configuration has been changed and requires restart of the virtual machine.
<b>numa_tune_mode</b>	<a href="#">NumaTuneMode</a>	How the NUMA topology is applied.
<b>origin</b>	<a href="#">String</a>	The origin of this virtual machine.
<b>os</b>	<a href="#">OperatingSystem</a>	Operating system type installed on the virtual machine.

Name	Type	Summary
<b>payloads</b>	<a href="#">Payload[]</a>	Optional payloads of the virtual machine, used for ISOs to configure it.
<b>placement_policy</b>	<a href="#">VmPlacementPolicy</a>	The configuration of the virtual machine's placement policy.
<b>rng_device</b>	<a href="#">RngDevice</a>	Random Number Generator device configuration for this virtual machine.
<b>run_once</b>	<a href="#">Boolean</a>	If <b>true</b> , the virtual machine has been started using the <i>run once</i> command, meaning it's configuration might differ from the stored one for the purpose of this single run.
<b>serial_number</b>	<a href="#">SerialNumber</a>	Virtual machine's serial number in a cluster.
<b>small_icon</b>	<a href="#">Icon</a>	Virtual machine's small icon.
<b>soundcard_enabled</b>	<a href="#">Boolean</a>	If <b>true</b> , the sound card is added to the virtual machine.
<b>sso</b>	<a href="#">Sso</a>	Reference to the Single Sign On configuration this virtual machine is configured for.
<b>start_paused</b>	<a href="#">Boolean</a>	If <b>true</b> , the virtual machine will be initially in 'paused' state after start.
<b>start_time</b>	<a href="#">Date</a>	The date in which the virtual machine was started.
<b>stateless</b>	<a href="#">Boolean</a>	If <b>true</b> , the virtual machine is stateless - it's state (disks) are rolled-back after shutdown.
<b>status</b>	<a href="#">VmStatus</a>	The current status of the virtual machine.
<b>status_detail</b>	<a href="#">String</a>	Human readable detail of current status.
<b>stop_reason</b>	<a href="#">String</a>	The reason the virtual machine was stopped.
<b>stop_time</b>	<a href="#">Date</a>	The date in which the virtual machine was stopped.
<b>storage_error_resume_behaviour</b>	<a href="#">VmStorageErrorResumeBehaviour</a>	Determines how the virtual machine will be resumed after storage error.
<b>time_zone</b>	<a href="#">TimeZone</a>	The virtual machine's time zone set by oVirt.
<b>tpm_enabled</b>	<a href="#">Boolean</a>	If <b>true</b> , a TPM device is added to the virtual machine.

Name	Type	Summary
<b>tunnel_migration</b>	Boolean	If <b>true</b> , the network data transfer will be encrypted during virtual machine live migration.
<b>type</b>	VmType	Determines whether the virtual machine is optimized for desktop or server.
<b>usb</b>	Usb	Configuration of USB devices for this virtual machine (count, type).
<b>use_latest_template_version</b>	Boolean	If <b>true</b> , the virtual machine is reconfigured to the latest version of it's template when it is started.
<b>virtio_scsi</b>	VirtioScsi	Reference to VirtIO SCSI configuration.
<b>virtio_scsi_multi_queues</b>	Integer	Number of queues for a Virtio-SCSI controller this field requires virtioScsiMultiQueuesEnabled to be true see virtioScsiMultiQueuesEnabled for more info
<b>virtio_scsi_multi_queues_enabled</b>	Boolean	If <b>true</b> , the Virtio-SCSI devices will obtain a number of multiple queues depending on the available virtual Cpus and disks, or according to the specified virtioScsiMultiQueues.

### 7.313.1. auto\_pinning\_policy

Specifies if and how the auto CPU and NUMA configuration is applied.



#### IMPORTANT

Since version 4.5 of the engine this operation is deprecated, and preserved only for backwards compatibility. It might be removed in the future. Please use CpuPinningPolicy instead.

### 7.313.2. cpu

The configuration of the virtual machine CPU.

The socket configuration can be updated without rebooting the virtual machine. The cores and the threads require a reboot.

For example, to change the number of sockets to 4 immediately, and the number of cores and threads to 2 after reboot, send the following request:

```
PUT /ovirt-engine/api/vms/123
```

With a request body:

```
<vm>
  <cpu>
```

```

<topology>
  <sockets>4</sockets>
  <cores>2</cores>
  <threads>2</threads>
</topology>
</cpu>
</vm>

```

### 7.313.3. cpu\_pinning\_policy

Specifies if and how the CPU and NUMA configuration is applied. When not specified the previous behavior of CPU pinning string will determine CpuPinningPolicy to None or Manual.

### 7.313.4. custom\_compatibility\_version

Virtual machine custom compatibility version.

Enables a virtual machine to be customized to its own compatibility version. If **custom\_compatibility\_version** is set, it overrides the cluster's compatibility version for this particular virtual machine.

The compatibility version of a virtual machine is limited by the data center the virtual machine resides in, and is checked against capabilities of the host the virtual machine is planned to run on.

### 7.313.5. high\_availability

The virtual machine high availability configuration. If set, the virtual machine will be automatically restarted when it unexpectedly goes down.

### 7.313.6. initialization

Reference to the virtual machine's initialization configuration.



#### NOTE

Since Red Hat Virtualization 4.1.8 this property can be cleared by sending an empty tag.

For example, to clear the **initialization** attribute send a request like this:

```
PUT /ovirt-engine/api/vms/123
```

With a request body like this:

```

<vm>
  <initialization/>
</vm>

```

The response to such a request, and requests with the header **All-Content: true** will still contain this attribute.

### 7.313.7. large\_icon

Virtual machine's large icon. Either set by user or refers to image set according to operating system.

### 7.313.8. lease

Reference to the storage domain this virtual machine/template lease reside on.

A virtual machine running with a lease requires checking while running that the lease is not taken by another host, preventing another instance of this virtual machine from running on another host. This provides protection against split-brain in highly available virtual machines. A template can also have a storage domain defined for a lease in order to have the virtual machines created from this template to be preconfigured with this storage domain as the location of the leases.

### 7.313.9. memory

The virtual machine's memory, in bytes.

For example, to update a virtual machine to contain 1 Gibibyte (GiB) of memory, send the following request:

```
PUT /ovirt-engine/api/vms/123
```

With the following request body:

```
<vm>
  <memory>1073741824</memory>
</vm>
```

Memory hot plug is supported from Red Hat Virtualization 3.6 onwards. You can use the example above to increase memory while the virtual machine is in state [up](#). The size increment must be dividable by the value of the **HotPlugMemoryBlockSizeMb** configuration value (256 MiB by default). If the memory size increment is not dividable by this value, the memory size change is only stored to next run configuration. Each successful memory hot plug operation creates one or two new memory devices.

Memory hot unplug is supported since Red Hat Virtualization 4.2 onwards. Memory hot unplug can only be performed when the virtual machine is in state [up](#). Only previously hot plugged memory devices can be removed by the hot unplug operation. The requested memory decrement is rounded down to match sizes of a combination of previously hot plugged memory devices. The requested memory value is stored to next run configuration without rounding.



#### NOTE

Memory in the example is converted to bytes using the following formula:  
 $1 \text{ GiB} = 2^{30} \text{ bytes} = 1073741824 \text{ bytes}$ .



#### NOTE

Red Hat Virtualization Manager internally rounds values down to whole MiBs (1MiB =  $2^{20}$  bytes)

### 7.313.10. migration

Reference to configuration of migration of a running virtual machine to another host.

**NOTE**

API for querying migration policy by ID returned by this method is not implemented yet. Use **/ovirt-engine/api/options/MigrationPolicies** to get a list of all migration policies with their IDs.

**7.313.11. migration\_downtime**

Maximum time the virtual machine can be non responsive during its live migration to another host in ms.

Set either explicitly for the virtual machine or by **engine-config -s DefaultMaximumMigrationDowntime=[value]**

**7.313.12. next\_run\_configuration\_exists**

Virtual machine configuration has been changed and requires restart of the virtual machine. Changed configuration is applied at processing the virtual machine's *shut down*.

**7.313.13. numa\_tune\_mode**

How the NUMA topology is applied. Deprecated in favor of NUMA tune per vNUMA node.

**7.313.14. origin**

The origin of this virtual machine.

Possible values:

- **ovirt**
- **rhev**
- **vmware**
- **xen**
- **external**
- **hosted\_engine**
- **managed\_hosted\_engine**
- **kvm**
- **physical\_machine**
- **hyperv**

**7.313.15. placement\_policy**

The configuration of the virtual machine's placement policy.

This configuration can be updated to pin a virtual machine to one or more hosts.

**NOTE**

Virtual machines that are pinned to multiple hosts cannot be live migrated, but in the event of a host failure, any virtual machine configured to be highly available is automatically restarted on one of the other hosts to which the virtual machine is pinned.

For example, to pin a virtual machine to two hosts, send the following request:

```
PUT /api/vms/123
```

With a request body like this:

```
<vm>
  <high_availability>
    <enabled>true</enabled>
    <priority>1</priority>
  </high_availability>
  <placement_policy>
    <hosts>
      <host>
        <name>Host1</name>
      </host>
      <host>
        <name>Host2</name>
      </host>
    </hosts>
    <affinity>pinned</affinity>
  </placement_policy>
</vm>
```

**7.313.16. small\_icon**

Virtual machine's small icon. Either set by user or refers to image set according to operating system.

**7.313.17. sso**

Reference to the Single Sign On configuration this virtual machine is configured for. The user can be automatically signed in the virtual machine's operating system when console is opened.

**7.313.18. stop\_reason**

The reason the virtual machine was stopped. Optionally set by user when shutting down the virtual machine.

**7.313.19. tpm\_enabled**

If **true**, a TPM device is added to the virtual machine. By default the value is **false**. This property is only visible when fetching if "All-Content=true" header is set.

**Table 7.407. Links summary**

Name	Type	Summary
<b>affinity_labels</b>	<a href="#">AffinityLabel[]</a>	Optional.
<b>applications</b>	<a href="#">Application[]</a>	List of applications installed on the virtual machine.
<b>cdroms</b>	<a href="#">Cdrom[]</a>	Reference to the ISO mounted to the CDROM.
<b>cluster</b>	<a href="#">Cluster</a>	Reference to cluster the virtual machine belongs to.
<b>cpu_profile</b>	<a href="#">CpuProfile</a>	Reference to CPU profile used by this virtual machine.
<b>disk_attachments</b>	<a href="#">DiskAttachment[]</a>	References the disks attached to the virtual machine.
<b>dynamic_cpu</b>	<a href="#">DynamicCpu</a>	The dynamic configuration of the virtual machine CPU.
<b>external_host_provider</b>	<a href="#">ExternalHostProvider</a>	
<b>floppies</b>	<a href="#">Floppy[]</a>	Reference to the ISO mounted to the floppy.
<b>graphics_consoles</b>	<a href="#">GraphicsConsole[]</a>	List of graphics consoles configured for this virtual machine.
<b>host</b>	<a href="#">Host</a>	Reference to the host the virtual machine is running on.
<b>host_devices</b>	<a href="#">HostDevice[]</a>	References devices associated to this virtual machine.
<b>instance_type</b>	<a href="#">InstanceType</a>	The virtual machine configuration can be optionally predefined via one of the instance types.
<b>katello_errata</b>	<a href="#">KatelloErratum[]</a>	Lists all the Katello errata assigned to the virtual machine.
<b>mediated_devices</b>	<a href="#">VmMediatedDevice[]</a>	Mediated devices configuration.
<b>nics</b>	<a href="#">Nic[]</a>	References the list of network interface devices on the virtual machine.
<b>numa_nodes</b>	<a href="#">NumaNode[]</a>	Refers to the NUMA Nodes configuration used by this virtual machine.
<b>original_template</b>	<a href="#">Template</a>	References the original template used to create the virtual machine.
<b>permissions</b>	<a href="#">Permission[]</a>	Permissions set for this virtual machine.

Name	Type	Summary
<b>quota</b>	<a href="#">Quota</a>	Reference to quota configuration set for this virtual machine.
<b>reported_devices</b>	<a href="#">ReportedDevice[]</a>	
<b>sessions</b>	<a href="#">Session[]</a>	List of user sessions opened for this virtual machine.
<b>snapshots</b>	<a href="#">Snapshot[]</a>	Refers to all snapshots taken from the virtual machine.
<b>statistics</b>	<a href="#">Statistic[]</a>	Statistics data collected from this virtual machine.
<b>storage_domain</b>	<a href="#">StorageDomain</a>	Reference to storage domain the virtual machine belongs to.
<b>tags</b>	<a href="#">Tag[]</a>	
<b>template</b>	<a href="#">Template</a>	Reference to the template the virtual machine is based on.
<b>vm_pool</b>	<a href="#">VmPool</a>	Reference to the pool the virtual machine is optionally member of.
<b>watchdogs</b>	<a href="#">Watchdog[]</a>	Refers to the Watchdog configuration.

### 7.313.20. affinity\_labels

Optional. Used for labeling of sub-clusters.

### 7.313.21. katello\_errata

Lists all the Katello errata assigned to the virtual machine.

```
GET /ovirt-engine/api/vms/123/katelloerrata
```

You will receive response in XML like this one:

```
<katello_errata>
  <katello_erratum href="/ovirt-engine/api/katelloerrata/456" id="456">
    <name>RHBA-2013:XYZ</name>
    <description>The description of the erratum</description>
    <title>some bug fix update</title>
    <type>bugfix</type>
    <issued>2013-11-20T02:00:00.000+02:00</issued>
    <solution>Few guidelines regarding the solution</solution>
    <summary>Updated packages that fix one bug are now available for XYZ</summary>
    <packages>
      <package>
        <name>libipa_hbac-1.9.2-82.11.el6_4.i686</name>
      </package>
    ...
```

```

</packages>
</katello_erratum>
...
</katello_errata>

```

### 7.313.22. original\_template

References the original template used to create the virtual machine.

If the virtual machine is cloned from a template or another virtual machine, the **template** links to the Blank template, and the **original\_template** is used to track history.

Otherwise the **template** and **original\_template** are the same.

### 7.313.23. statistics

Statistics data collected from this virtual machine.

Note that some statistics, notably **memory.buffered** and **memory.cached** are available only when [Red Hat Virtualization guest agent](#) is installed in the virtual machine.

## 7.314. VMAFFINITY ENUM

Table 7.408. Values summary

Name	Summary
<b>migratable</b>	
<b>pinned</b>	
<b>user_migratable</b>	

## 7.315. VMBASE STRUCT

Represents basic virtual machine configuration. This is used by virtual machines, templates and instance types.

Table 7.409. Attributes summary

Name	Type	Summary
<b>auto_pinning_policy</b>	<a href="#">AutoPinningPolicy</a>	Specifies if and how the auto CPU and NUMA configuration is applied.
<b>bios</b>	<a href="#">Bios</a>	Reference to virtual machine's BIOS configuration.
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>console</b>	<a href="#">Console</a>	Console configured for this virtual machine.

Name	Type	Summary
<b>cpu</b>	Cpu	The configuration of the virtual machine CPU.
<b>cpu_pinning_policy</b>	CpuPinningPolicy	Specifies if and how the CPU and NUMA configuration is applied.
<b>cpu_shares</b>	Integer	
<b>creation_time</b>	Date	The virtual machine creation date.
<b>custom_compatibility_version</b>	Version	Virtual machine custom compatibility version.
<b>custom_cpu_model</b>	String	
<b>custom_emulated_machine</b>	String	
<b>custom_properties</b>	CustomProperty[]	Properties sent to VDSM to configure various hooks.
<b>delete_protected</b>	Boolean	If <b>true</b> , the virtual machine cannot be deleted.
<b>description</b>	String	A human-readable description in plain text.
<b>display</b>	Display	The virtual machine display configuration.
<b>domain</b>	Domain	Domain configured for this virtual machine.
<b>high_availability</b>	HighAvailability	The virtual machine high availability configuration.
<b>id</b>	String	A unique identifier.
<b>initialization</b>	Initialization	Reference to the virtual machine's initialization configuration.
<b>io</b>	Io	For performance tuning of IO threading.
<b>large_icon</b>	Icon	Virtual machine's large icon.
<b>lease</b>	StorageDomainLease	Reference to the storage domain this virtual machine/template lease reside on.
<b>memory</b>	Integer	The virtual machine's memory, in bytes.

Name	Type	Summary
<b>memory_policy</b>	<a href="#">MemoryPolicy</a>	Reference to virtual machine's memory management configuration.
<b>migration</b>	<a href="#">MigrationOptions</a>	Reference to configuration of migration of a running virtual machine to another host.
<b>migration_down_time</b>	<a href="#">Integer</a>	Maximum time the virtual machine can be non responsive during its live migration to another host in ms.
<b>multi_queues_enabled</b>	<a href="#">Boolean</a>	If <b>true</b> , each virtual interface will get the optimal number of queues, depending on the available virtual Cpus.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>origin</b>	<a href="#">String</a>	The origin of this virtual machine.
<b>os</b>	<a href="#">OperatingSystem</a>	Operating system type installed on the virtual machine.
<b>placement_policy</b>	<a href="#">VmPlacementPolicy</a>	The configuration of the virtual machine's placement policy.
<b>rng_device</b>	<a href="#">RngDevice</a>	Random Number Generator device configuration for this virtual machine.
<b>serial_number</b>	<a href="#">SerialNumber</a>	Virtual machine's serial number in a cluster.
<b>small_icon</b>	<a href="#">Icon</a>	Virtual machine's small icon.
<b>soundcard_enabled</b>	<a href="#">Boolean</a>	If <b>true</b> , the sound card is added to the virtual machine.
<b>ssso</b>	<a href="#">Sso</a>	Reference to the Single Sign On configuration this virtual machine is configured for.
<b>start_paused</b>	<a href="#">Boolean</a>	If <b>true</b> , the virtual machine will be initially in 'paused' state after start.
<b>stateless</b>	<a href="#">Boolean</a>	If <b>true</b> , the virtual machine is stateless - it's state (disks) are rolled-back after shutdown.
<b>storage_error_resume_behaviour</b>	<a href="#">VmStorageErrorResumeBehaviour</a>	Determines how the virtual machine will be resumed after storage error.
<b>time_zone</b>	<a href="#">TimeZone</a>	The virtual machine's time zone set by oVirt.

Name	Type	Summary
<b>tpm_enabled</b>	Boolean	If <b>true</b> , a TPM device is added to the virtual machine.
<b>tunnel_migration</b>	Boolean	If <b>true</b> , the network data transfer will be encrypted during virtual machine live migration.
<b>type</b>	VmType	Determines whether the virtual machine is optimized for desktop or server.
<b>usb</b>	Usb	Configuration of USB devices for this virtual machine (count, type).
<b>virtio_scsi</b>	VirtioScsi	Reference to VirtIO SCSI configuration.
<b>virtio_scsi_multi_queues</b>	Integer	Number of queues for a Virtio-SCSI controller this field requires virtioScsiMultiQueuesEnabled to be true see virtioScsiMultiQueuesEnabled for more info
<b>virtio_scsi_multi_queues_enabled</b>	Boolean	If <b>true</b> , the Virtio-SCSI devices will obtain a number of multiple queues depending on the available virtual Cpus and disks, or according to the specified virtioScsiMultiQueues.

### 7.315.1. auto\_pinning\_policy

Specifies if and how the auto CPU and NUMA configuration is applied.



#### IMPORTANT

Since version 4.5 of the engine this operation is deprecated, and preserved only for backwards compatibility. It might be removed in the future. Please use CpuPinningPolicy instead.

### 7.315.2. cpu

The configuration of the virtual machine CPU.

The socket configuration can be updated without rebooting the virtual machine. The cores and the threads require a reboot.

For example, to change the number of sockets to 4 immediately, and the number of cores and threads to 2 after reboot, send the following request:

```
PUT /ovirt-engine/api/vms/123
```

With a request body:

```
<vm>
  <cpu>
    <topology>
```

```

<sockets>4</sockets>
<cores>2</cores>
<threads>2</threads>
</topology>
</cpu>
</vm>

```

### 7.315.3. cpu\_pinning\_policy

Specifies if and how the CPU and NUMA configuration is applied. When not specified the previous behavior of CPU pinning string will determine CpuPinningPolicy to None or Manual.

### 7.315.4. custom\_compatibility\_version

Virtual machine custom compatibility version.

Enables a virtual machine to be customized to its own compatibility version. If **custom\_compatibility\_version** is set, it overrides the cluster's compatibility version for this particular virtual machine.

The compatibility version of a virtual machine is limited by the data center the virtual machine resides in, and is checked against capabilities of the host the virtual machine is planned to run on.

### 7.315.5. high\_availability

The virtual machine high availability configuration. If set, the virtual machine will be automatically restarted when it unexpectedly goes down.

### 7.315.6. initialization

Reference to the virtual machine's initialization configuration.



#### NOTE

Since Red Hat Virtualization 4.1.8 this property can be cleared by sending an empty tag.

For example, to clear the **initialization** attribute send a request like this:

```
PUT /ovirt-engine/api/vms/123
```

With a request body like this:

```

<vm>
  <initialization/>
</vm>

```

The response to such a request, and requests with the header **All-Content: true** will still contain this attribute.

### 7.315.7. large\_icon

Virtual machine's large icon. Either set by user or refers to image set according to operating system.

### 7.315.8. lease

Reference to the storage domain this virtual machine/template lease reside on.

A virtual machine running with a lease requires checking while running that the lease is not taken by another host, preventing another instance of this virtual machine from running on another host. This provides protection against split-brain in highly available virtual machines. A template can also have a storage domain defined for a lease in order to have the virtual machines created from this template to be preconfigured with this storage domain as the location of the leases.

### 7.315.9. memory

The virtual machine's memory, in bytes.

For example, to update a virtual machine to contain 1 Gibibyte (GiB) of memory, send the following request:

```
PUT /ovirt-engine/api/vms/123
```

With the following request body:

```
<vm>
  <memory>1073741824</memory>
</vm>
```

Memory hot plug is supported from Red Hat Virtualization 3.6 onwards. You can use the example above to increase memory while the virtual machine is in state [up](#). The size increment must be dividable by the value of the **HotPlugMemoryBlockSizeMb** configuration value (256 MiB by default). If the memory size increment is not dividable by this value, the memory size change is only stored to next run configuration. Each successful memory hot plug operation creates one or two new memory devices.

Memory hot unplug is supported since Red Hat Virtualization 4.2 onwards. Memory hot unplug can only be performed when the virtual machine is in state [up](#). Only previously hot plugged memory devices can be removed by the hot unplug operation. The requested memory decrement is rounded down to match sizes of a combination of previously hot plugged memory devices. The requested memory value is stored to next run configuration without rounding.



#### NOTE

Memory in the example is converted to bytes using the following formula:  
 $1 \text{ GiB} = 2^{30} \text{ bytes} = 1073741824 \text{ bytes}$ .



#### NOTE

Red Hat Virtualization Manager internally rounds values down to whole MiBs (1MiB =  $2^{20}$  bytes)

### 7.315.10. migration

Reference to configuration of migration of a running virtual machine to another host.

**NOTE**

API for querying migration policy by ID returned by this method is not implemented yet. Use **/ovirt-engine/api/options/MigrationPolicies** to get a list of all migration policies with their IDs.

**7.315.11. migration\_downtime**

Maximum time the virtual machine can be non responsive during its live migration to another host in ms.

Set either explicitly for the virtual machine or by **engine-config -s DefaultMaximumMigrationDowntime=[value]**

**7.315.12. origin**

The origin of this virtual machine.

Possible values:

- **ovirt**
- **rhev**
- **vmware**
- **xen**
- **external**
- **hosted\_engine**
- **managed\_hosted\_engine**
- **kvm**
- **physical\_machine**
- **hyperv**

**7.315.13. placement\_policy**

The configuration of the virtual machine's placement policy.

This configuration can be updated to pin a virtual machine to one or more hosts.

**NOTE**

Virtual machines that are pinned to multiple hosts cannot be live migrated, but in the event of a host failure, any virtual machine configured to be highly available is automatically restarted on one of the other hosts to which the virtual machine is pinned.

For example, to pin a virtual machine to two hosts, send the following request:

```
PUT /api/vms/123
```

With a request body like this:

```
<vm>
  <high_availability>
    <enabled>>true</enabled>
    <priority>1</priority>
  </high_availability>
  <placement_policy>
    <hosts>
      <host>
        <name>Host1</name>
      </host>
      <host>
        <name>Host2</name>
      </host>
    </hosts>
    <affinity>pinned</affinity>
  </placement_policy>
</vm>
```

#### 7.315.14. small\_icon

Virtual machine's small icon. Either set by user or refers to image set according to operating system.

#### 7.315.15. sso

Reference to the Single Sign On configuration this virtual machine is configured for. The user can be automatically signed in the virtual machine's operating system when console is opened.

#### 7.315.16. tpm\_enabled

If **true**, a TPM device is added to the virtual machine. By default the value is **false**. This property is only visible when fetching if "All-Content=true" header is set.

Table 7.410. Links summary

Name	Type	Summary
<b>cluster</b>	<a href="#">Cluster</a>	Reference to cluster the virtual machine belongs to.
<b>cpu_profile</b>	<a href="#">CpuProfile</a>	Reference to CPU profile used by this virtual machine.
<b>quota</b>	<a href="#">Quota</a>	Reference to quota configuration set for this virtual machine.
<b>storage_domain</b>	<a href="#">StorageDomain</a>	Reference to storage domain the virtual machine belongs to.

## 7.316. VMDEVICETYPE ENUM

Table 7.411. Values summary

Name	Summary
<b>cdrom</b>	
<b>floppy</b>	

## 7.317. VMEDIATEDDEVICE STRUCT

VM mediated device is a fake device specifying properties of vGPU mediated devices. It is not an actual device, it just serves as a specification how to configure a part of a host device.

Table 7.412. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>spec_params</b>	<a href="#">Property[]</a>	Properties of the device.

Table 7.413. Links summary

Name	Type	Summary
<b>instance_type</b>	<a href="#">InstanceType</a>	Optionally references to an instance type the device is used by.
<b>template</b>	<a href="#">Template</a>	Optionally references to a template the device is used by.
<b>vm</b>	<a href="#">Vm</a>	Do not use this element, use <b>vms</b> instead.
<b>vms</b>	<a href="#">Vm[]</a>	References to the virtual machines that are using this device.

### 7.317.1. vms

References to the virtual machines that are using this device. A device may be used by several virtual machines; for example, a shared disk may be used simultaneously by two or more virtual machines.

## 7.318. VMPLACEMENTPOLICY STRUCT

Table 7.414. Attributes summary

Name	Type	Summary
<b>affinity</b>	<a href="#">VmAffinity</a>	

Table 7.415. Links summary

Name	Type	Summary
<b>hosts</b>	<a href="#">Host[]</a>	

## 7.319. VMPOOL STRUCT

Type representing a virtual machines pool.

Table 7.416. Attributes summary

Name	Type	Summary
<b>auto_storage_select</b>	<a href="#">Boolean</a>	Indicates if the pool should automatically distribute the disks of the virtual machines across the multiple storage domains where the template is copied.
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>display</b>	<a href="#">Display</a>	The display settings configured for virtual machines in the pool.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>max_user_vms</b>	<a href="#">Integer</a>	The maximum number of virtual machines in the pool that could be assigned to a particular user.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>prestarted_vms</b>	<a href="#">Integer</a>	The system attempts to prestart the specified number of virtual machines from the pool.
<b>rng_device</b>	<a href="#">RngDevice</a>	The random number generator device configured for virtual machines in the pool.
<b>size</b>	<a href="#">Integer</a>	The number of virtual machines in the pool.
<b>soundcard_enabled</b>	<a href="#">Boolean</a>	Indicates if sound card should be configured for virtual machines in the pool.
<b>stateful</b>	<a href="#">Boolean</a>	Virtual machine pool's stateful flag.

Name	Type	Summary
<b>tpm_enabled</b>	Boolean	If <b>true</b> , a TPM device is added to the virtual machine.
<b>type</b>	VmPoolType	The deallocation policy of virtual machines in the pool.
<b>use_latest_template_version</b>	Boolean	Indicates if virtual machines in the pool are updated to newer versions of the template the pool is based on.

### 7.319.1. auto\_storage\_select

Indicates if the pool should automatically distribute the disks of the virtual machines across the multiple storage domains where the template is copied.

When the template used by the pool is present in multiple storage domains, the disks of the virtual machines of the pool will be created in one of those storage domains. By default, or when the value of this attribute is **false**, that storage domain is selected when the pool is created, and all virtual machines will use the same. If this attribute is **true**, then, when a virtual machine is added to the pool, the storage domain that has more free space is selected.

### 7.319.2. display

The display settings configured for virtual machines in the pool.



#### WARNING

Please note that this attribute is not working and is now deprecated. Please use **Vm.display** instead.

### 7.319.3. prestarted\_vms

The system attempts to prestart the specified number of virtual machines from the pool.

These virtual machines are started without being attached to any user. That way, users can acquire virtual machines from the pool faster.

### 7.319.4. stateful

Virtual machine pool's stateful flag.

Virtual machines from a stateful virtual machine pool are always started in stateful mode (stateless snapshot is not created). The state of the virtual machine is preserved even when the virtual machine is passed to a different user.

### 7.319.5. tpm\_enabled

If **true**, a TPM device is added to the virtual machine. By default the value is **false**. This property is only visible when fetching if "All-Content=true" header is set.

Table 7.417. Links summary

Name	Type	Summary
<b>cluster</b>	<a href="#">Cluster</a>	Reference to the cluster the pool resides in.
<b>instance_type</b>	<a href="#">InstanceType</a>	Reference to the instance type on which this pool is based.
<b>permissions</b>	<a href="#">Permission[]</a>	Permissions set for this virtual machine pool.
<b>template</b>	<a href="#">Template</a>	Reference to the template the pool is based on.
<b>vm</b>	<a href="#">Vm</a>	Reference to an arbitrary virtual machine that is part of the pool.

### 7.319.6. instance\_type

Reference to the instance type on which this pool is based. It can be set only on pool creation and cannot be edited.

### 7.319.7. vm

Reference to an arbitrary virtual machine that is part of the pool.

Note that this virtual machine may not be based to the latest version of the pool's template.

## 7.320. VMPOOLTYPE ENUM

Type representing the deallocation policy of virtual machines in a virtual machines pool.

Table 7.418. Values summary

Name	Summary
<b>automatic</b>	This policy indicates that virtual machines in the pool are automatically deallocated by the system.
<b>manual</b>	This policy indicates that virtual machines in the pool are deallocated manually by the administrator.

### 7.320.1. automatic

This policy indicates that virtual machines in the pool are automatically deallocated by the system.

With this policy, when a virtual machine that is part of the pool and is assigned to a user is shut-down, it is detached from the user, its state is restored to the pool's default state, and the virtual machine returns to pool (i.e., the virtual machine can then be assigned to another user).

## 7.320.2. manual

This policy indicates that virtual machines in the pool are deallocated manually by the administrator.

With this policy, a virtual machine that is part of the pool remains assigned to its user and preserves its state on shut-down. In order to return the virtual machine back to the pool, the administrator needs to deallocate it explicitly by removing the user's permissions on that virtual machine.

## 7.321. VMSTATUS ENUM

Type representing a status of a virtual machine.

Table 7.419. Values summary

Name	Summary
<b>down</b>	This status indicates that the virtual machine process is not running.
<b>image_locked</b>	This status indicates that the virtual machine process is not running and there is some operation on the disks of the virtual machine that prevents it from being started.
<b>migrating</b>	This status indicates that the virtual machine process is running and the virtual machine is being migrated from one host to another.
<b>not_responding</b>	This status indicates that the hypervisor detected that the virtual machine is not responding.
<b>paused</b>	This status indicates that the virtual machine process is running and the virtual machine is paused.
<b>powering_down</b>	This status indicates that the virtual machine process is running and it is about to stop running.
<b>powering_up</b>	This status indicates that the virtual machine process is running and the guest operating system is being loaded.
<b>reboot_in_progress</b>	This status indicates that the virtual machine process is running and the guest operating system is being rebooted.
<b>restoring_state</b>	This status indicates that the virtual machine process is about to run and the virtual machine is going to awake from hibernation.
<b>saving_state</b>	This status indicates that the virtual machine process is running and the virtual machine is being hibernated.
<b>suspended</b>	This status indicates that the virtual machine process is not running and a running state of the virtual machine was saved.
<b>unassigned</b>	This status is set when an invalid status is received.

Name	Summary
<b>unknown</b>	This status indicates that the system failed to determine the status of the virtual machine.
<b>up</b>	This status indicates that the virtual machine process is running and the guest operating system is loaded.
<b>wait_for_launch</b>	This status indicates that the virtual machine process is about to run.

### 7.321.1. paused

This status indicates that the virtual machine process is running and the virtual machine is paused. This may happen in two cases: when running a virtual machine is paused mode and when the virtual machine is being automatically paused due to an error.

### 7.321.2. powering\_up

This status indicates that the virtual machine process is running and the guest operating system is being loaded. Note that if no guest-agent is installed, this status is set for a predefined period of time, that is by default 60 seconds, when running a virtual machine.

### 7.321.3. restoring\_state

This status indicates that the virtual machine process is about to run and the virtual machine is going to awake from hibernation. In this status, the running state of the virtual machine is being restored.

### 7.321.4. saving\_state

This status indicates that the virtual machine process is running and the virtual machine is being hibernated. In this status, the running state of the virtual machine is being saved. Note that this status does not mean that the guest operating system is being hibernated.

### 7.321.5. suspended

This status indicates that the virtual machine process is not running and a running state of the virtual machine was saved. This status is similar to Down, but when the VM is started in this status its saved running state is restored instead of being booted using the normal procedure.

### 7.321.6. unknown

This status indicates that the system failed to determine the status of the virtual machine. The virtual machine process may be running or not running in this status. For instance, when host becomes non-responsive the virtual machines that ran on it are set with this status.

### 7.321.7. up

This status indicates that the virtual machine process is running and the guest operating system is loaded. Note that if no guest-agent is installed, this status is set after a predefined period of time, that is by default 60 seconds, when running a virtual machine.

### 7.321.8. wait\_for\_launch

This status indicates that the virtual machine process is about to run. This status is set when a request to run a virtual machine arrives to the host. It is possible that the virtual machine process will fail to run.

## 7.322. VMSTORAGEERRORRESUMEBEHAVIOUR ENUM

If the storage, on which this virtual machine has some disks gets unresponsive, the virtual machine gets paused.

This are the possible options, what should happen with the virtual machine in the moment the storage gets available again.

**Table 7.420. Values summary**

Name	Summary
<b>auto_resume</b>	The virtual machine gets resumed automatically in the moment the storage is available again.
<b>kill</b>	The virtual machine will be killed after a timeout (configurable on the hypervisor).
<b>leave_paused</b>	Do nothing with the virtual machine.

### 7.322.1. auto\_resume

The virtual machine gets resumed automatically in the moment the storage is available again.

This is the only behavior available before 4.2.

### 7.322.2. kill

The virtual machine will be killed after a timeout (configurable on the hypervisor).

This is the only option supported for highly available virtual machines with leases. The reason is that the highly available virtual machine is restarted using the infrastructure and any kind of resume risks split brains.

### 7.322.3. leave\_paused

Do nothing with the virtual machine.

Useful if there is a custom failover implemented and the user does not want the virtual machine to get resumed.

## 7.323. VMSUMMARY STRUCT

Type containing information related to virtual machines on a particular host.

Table 7.421. Attributes summary

Name	Type	Summary
<b>active</b>	Integer	The number of virtual machines active on the host.
<b>migrating</b>	Integer	The number of virtual machines migrating to or from the host.
<b>total</b>	Integer	The number of virtual machines present on the host.

## 7.324. VMTYPE ENUM

Type representing what the virtual machine is optimized for.

Table 7.422. Values summary

Name	Summary
<b>desktop</b>	The virtual machine is intended to be used as a desktop.
<b>high_performance</b>	The virtual machine is intended to be used as a high performance virtual machine.
<b>server</b>	The virtual machine is intended to be used as a server.

### 7.324.1. desktop

The virtual machine is intended to be used as a desktop.

Currently, its implication is that a sound device will automatically be added to the virtual machine.

### 7.324.2. high\_performance

The virtual machine is intended to be used as a high performance virtual machine.

Currently, its implication is that the virtual machine configuration will automatically be set for running with the highest possible performance, and with performance metrics as close to bare metal as possible.

Some of the recommended configuration settings for the highest possible performance cannot be set automatically; manually setting them before running the virtual machine is recommended.

The following configuration changes are set automatically:

- Enable headless mode.
- Enable serial console.
- Enable pass-through host CPU.
- Enable I/O threads.
- Enable I/O threads pinning and set the pinning topology.

- Enable the paravirtualized random number generator PCI (virtio-rng) device.
- Disable all USB devices.
- Disable the soundcard device.
- Disable the smartcard device.
- Disable the memory balloon device.
- Disable the watchdog device.
- Disable migration.
- Disable high availability.

The following recommended configuration changes have to be set manually by the user:

- Enable CPU pinning topology.
- Enable non-uniform memory access (NUMA) pinning topology.
- Enable and set huge pages configuration.
- Disable kernel same-page merging (KSM).

### 7.324.3. server

The virtual machine is intended to be used as a server.

Currently, its implication is that a sound device will not automatically be added to the virtual machine.

## 7.325. VNICPASSTHROUGH STRUCT

Table 7.423. Attributes summary

Name	Type	Summary
<b>mode</b>	<a href="#">VnicPassThrough Mode</a>	Defines whether the vNIC will be implemented as a virtual device, or as a pass-through to a host device.

## 7.326. VNICPASSTHROUGHMODE ENUM

Describes whether the vNIC is to be implemented as a pass-through device or a virtual one.

Table 7.424. Values summary

Name	Summary
<b>disabled</b>	To be implemented as a virtual device.
<b>enabled</b>	To be implemented as a pass-through device.

## 7.327. VNICPROFILE STRUCT

A vNIC profile is a collection of settings that can be applied to individual [NIC](#).

Table 7.425. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>custom_properties</b>	<a href="#">CustomProperty[]</a>	Custom properties applied to the vNIC profile.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>migratable</b>	<a href="#">Boolean</a>	Marks whether <b>pass_through</b> NIC is migratable or not.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.
<b>pass_through</b>	<a href="#">VnicPassThrough</a>	Enables passthrough to an SR-IOV-enabled <a href="#">host NIC</a> .
<b>port_mirroring</b>	<a href="#">Boolean</a>	Enables port mirroring.

### 7.327.1. migratable

Marks whether **pass\_through** NIC is migratable or not.

If **pass\_through.mode** is set to **disabled** this option has no meaning, and it will be considered to be **true**. If you omit this option from a request, by default, this will be set to **true**.

When migrating a virtual machine, this virtual machine will be migrated only if all **pass\_through** NICs are flagged as **migratable**.

### 7.327.2. pass\_through

Enables passthrough to an SR-IOV-enabled [host NIC](#).

A vNIC profile enables a NIC to be directly connected to a [virtual function \(VF\)](#) of an SR-IOV-enabled host NIC, if passthrough is enabled. The NIC will then bypass the software network virtualization and connect directly to the VF for direct device assignment.

Passthrough cannot be enabled if the vNIC profile is already attached to a NIC. If a vNIC profile has passthrough enabled, **qos** and **port\_mirroring** are disabled for the vNIC profile.

### 7.327.3. port\_mirroring

Enables port mirroring.

Port mirroring copies layer 3 network traffic on a given [logical network](#) and [host](#) to a NIC on a [virtual machine](#). This virtual machine can be used for network debugging and tuning, intrusion detection, and

monitoring the behavior of other virtual machines on the same host and logical network. The only traffic copied is internal to one logical network on one host. There is no increase in traffic on the network external to the host; however a virtual machine with port mirroring enabled uses more host CPU and RAM than other virtual machines.

Port mirroring has the following limitations:

- Hot linking a NIC with a vNIC profile that has port mirroring enabled is not supported.
- Port mirroring cannot be altered when the vNIC profile is attached to a virtual machine.

Given the above limitations, it is recommended that you enable port mirroring on an additional, dedicated vNIC profile.



### IMPORTANT

Enabling port mirroring reduces the privacy of other network users.

**Table 7.426. Links summary**

Name	Type	Summary
<b>failover</b>	<a href="#">VnicProfile</a>	Failover vNIC profile for SR-IOV migration without downtime
<b>network</b>	<a href="#">Network</a>	Reference to the network that the vNIC profile is applied to.
<b>network_filter</b>	<a href="#">NetworkFilter</a>	Reference to the top-level network filter that applies to the NICs that use this profile.
<b>permissions</b>	<a href="#">Permission[]</a>	Permissions to allow usage of the vNIC profile.
<b>qos</b>	<a href="#">Qos</a>	Reference to the quality of service attributes to apply to the vNIC profile.

#### 7.327.4. network\_filter

Reference to the top-level network filter that applies to the NICs that use this profile.

Network filters enhance the ability to manage the network packets traffic to and from virtual machines. The network filter may either contain a reference to other filters, rules for traffic filtering, or a combination of both.

#### 7.327.5. qos

Reference to the quality of service attributes to apply to the vNIC profile.

Quality of Service attributes regulate inbound and outbound network traffic of the NIC.

#### 7.328. VNICPROFILEMAPPING STRUCT

Deprecated type that maps an external virtual NIC profile to one that exists in the Red Hat Virtualization Manager.

If, for example, the desired virtual NIC profile's mapping includes the following two lines:

Source network name	Source network profile name	Target virtual NIC profile ID
<b>red</b>	<b>gold</b>	<b>738dd914-8ec8-4a8b-8628-34672a5d449b</b>
<b>blue</b>	<b>silver</b>	<b>892a12ec-2028-4451-80aa-ff3bf55d6bac</b>

The following form is deprecated since 4.2.1 and will be removed in the future:

```
<vnic_profile_mappings>
  <vnic_profile_mapping>
    <source_network_name>red</source_network_name>
    <source_network_profile_name>gold</source_network_profile_name>
    <target_vnic_profile id="738dd914-8ec8-4a8b-8628-34672a5d449b"/>
  </vnic_profile_mapping>
  <vnic_profile_mapping>
    <source_network_name>blue</source_network_name>
    <source_network_profile_name>silver</source_network_profile_name>
    <target_vnic_profile id="892a12ec-2028-4451-80aa-ff3bf55d6bac"/>
  </vnic_profile_mapping>
</vnic_profile_mappings>
```

Table 7.427. Attributes summary

Name	Type	Summary
<b>source_network_name</b>	String	Deprecated attribute describing the name of the external network.
<b>source_network_profile_name</b>	String	Deprecated attribute describing the name of the external network profile.

### 7.328.1. source\_network\_name

Deprecated attribute describing the name of the external network.



#### WARNING

Please note that this attribute has been deprecated since version 4.2.1 of the engine, and preserved only for backward compatibility. It will be removed in the future.

### 7.328.2. source\_network\_profile\_name

Deprecated attribute describing the name of the external network profile.



### WARNING

Please note that this attribute has been deprecated since version 4.2.1 of the engine, and preserved only for backward compatibility. It will be removed in the future.

Table 7.428. Links summary

Name	Type	Summary
<b>target_vnic_profile</b>	<a href="#">VnicProfile</a>	Deprecated attribute describing an existing virtual NIC profile.

### 7.328.3. target\_vnic\_profile

Deprecated attribute describing an existing virtual NIC profile.



### WARNING

Please note that this attribute has been deprecated since version 4.2.1 of the engine, and preserved only for backward compatibility. It will be removed in the future.

## 7.329. VOLUMEGROUP STRUCT

Table 7.429. Attributes summary

Name	Type	Summary
<b>id</b>	<a href="#">String</a>	
<b>logical_units</b>	<a href="#">LogicalUnit[]</a>	
<b>name</b>	<a href="#">String</a>	

## 7.330. WATCHDOG STRUCT

This type represents a watchdog configuration.

Table 7.430. Attributes summary

Name	Type	Summary
<b>action</b>	<a href="#">WatchdogAction</a>	Watchdog action to be performed when watchdog is triggered.
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>model</b>	<a href="#">WatchdogModel</a>	Model of watchdog device.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.

### 7.330.1. model

Model of watchdog device. Currently supported only I6300ESB.

Table 7.431. Links summary

Name	Type	Summary
<b>instance_type</b>	<a href="#">InstanceType</a>	Optionally references to an instance type the device is used by.
<b>template</b>	<a href="#">Template</a>	Optionally references to a template the device is used by.
<b>vm</b>	<a href="#">Vm</a>	Do not use this element, use <b>vms</b> instead.
<b>vms</b>	<a href="#">Vm[]</a>	References to the virtual machines that are using this device.

### 7.330.2. vms

References to the virtual machines that are using this device. A device may be used by several virtual machines; for example, a shared disk may be used simultaneously by two or more virtual machines.

## 7.331. WATCHDOGACTION ENUM

This type describes available watchdog actions.

Table 7.432. Values summary

Name	Summary
<b>dump</b>	Virtual machine process will get core dumped to the default path on the host.
<b>none</b>	No action will be performed when watchdog action is triggered.

Name	Summary
<b>pause</b>	Virtual machine will be paused when watchdog action is triggered.
<b>poweroff</b>	Virtual machine will be powered off when watchdog action is triggered.
<b>reset</b>	Virtual machine will be rebooted when watchdog action is triggered.

### 7.331.1. none

No action will be performed when watchdog action is triggered. However log message will still be generated.

## 7.332. WATCHDOGMODEL ENUM

This type represents the watchdog model.

Table 7.433. Values summary

Name	Summary
<b>diag288</b>	The watchdog model for S390X machines.
<b>i6300esb</b>	PCI based watchdog model.

### 7.332.1. diag288

The watchdog model for S390X machines.

S390X has an integrated watchdog facility that is controlled via the DIAG288 instruction. Use this model for S390X virtual machines.

### 7.332.2. i6300esb

PCI based watchdog model.

Use the I6300ESB watchdog for x86\_64 and PPC64 virtual machines.

## 7.333. WEIGHT STRUCT

Table 7.434. Attributes summary

Name	Type	Summary
<b>comment</b>	<a href="#">String</a>	Free text containing comments about this object.
<b>description</b>	<a href="#">String</a>	A human-readable description in plain text.

Name	Type	Summary
<b>factor</b>	<a href="#">Integer</a>	
<b>id</b>	<a href="#">String</a>	A unique identifier.
<b>name</b>	<a href="#">String</a>	A human-readable name in plain text.

Table 7.435. Links summary

Name	Type	Summary
<b>scheduling_policy</b>	<a href="#">SchedulingPolicy</a>	
<b>scheduling_policy_unit</b>	<a href="#">SchedulingPolicyUnit</a>	

## APPENDIX A. PRIMITIVE TYPES

This section describes the primitive data types supported by the API.

### A.1. STRING PRIMITIVE

A finite sequence of [Unicode](#) characters.

### A.2. BOOLEAN PRIMITIVE

Represents the *false* and *true* concepts used in mathematical logic.

The valid values are the strings **false** and **true**.

Case is ignored by the engine, so for example **False** and **FALSE** also valid values. However the server will always return lower case values.

For backwards compatibility with older versions of the engine, the values **0** and **1** are also accepted. The value **0** has the same meaning than **false**, and **1** has the same meaning than **true**. Try to avoid using these values, as support for them may be removed in the future.

### A.3. INTEGER PRIMITIVE

Represents the mathematical concept of integer number.

The valid values are finite sequences of decimal digits.

Currently the engine implements this type using a signed 32 bit integer, so the minimum value is  $-2^{31}$  (-2147483648) and the maximum value is  $2^{31}-1$  (2147483647).

However, there are some attributes in the system where the range of values possible with 32 bit isn't enough. In those exceptional cases the engine uses 64 bit integers, in particular for the following attributes:

- **Disk.actual\_size**
- **Disk.provisioned\_size**
- **GlusterClient.bytes\_read**
- **GlusterClient.bytes\_written**
- **Host.max\_scheduling\_memory**
- **Host.memory**
- **HostNic.speed**
- **LogicalUnit.size**
- **MemoryPolicy.guaranteed**
- **NumaNode.memory**
- **QuotaStorageLimit.limit**

- **StorageDomain.available**
- **StorageDomain.used**
- **StorageDomain.committed**
- **VmBase.memory**

For these exception cases the minimum value is  $-2^{63}$  (-9223372036854775808) and the maximum value is  $2^{63}-1$  (9223372036854775807).



#### NOTE

In the future the integer type will be implemented using unlimited precision integers, so the above limitations and exceptions will eventually disappear.

## A.4. DECIMAL PRIMITIVE

Represents the mathematical concept of real number.

Currently the engine implements this type using 32-bit [IEEE 754](#) single precision floating point numbers.

For some attributes this isn't enough precision. In those exceptional cases the engine uses 64 bit double precision floating point numbers, in particular for the following attributes:

- **QuotaStorageLimit.usage**
- **QuotaStorageLimit.memory\_limit**
- **QuotaStorageLimit.memory\_usage**



#### NOTE

In the future the decimal type will be implemented using unlimited precision decimal numbers, so the above limitations and exceptions will eventually disappear.

## A.5. DATE PRIMITIVE

Represents a date and time.

The format returned by the engine is the one described in the [XML Schema specification](#) when requesting XML. For example, if you send a request like this to retrieve the XML representation of a virtual machine:

```
GET /ovirt-engine/api/vms/123
Accept: application/xml
```

The response body will contain the following XML document:

```
<vm id="123" href="/ovirt-engine/api/vms/123">
  ...
  <creation_time>2016-09-08T09:53:35.138+02:00</creation_time>
  ...
</vm>
```

When requesting the JSON representation the engine uses a different, format: an integer containing the number of milliseconds since Jan 1<sup>st</sup> 1970, also known as *epoch time*. For example, if you send a request like this to retrieve the JSON representation of a virtual machine:

```
GET /ovirt-engine/api/vms/123
Accept: application/json
```

The response body will contain the following JSON document:

```
{
  "id": "123",
  "href="/ovirt-engine/api/vms/123",
  ...
  "creation_time": 1472564909990,
  ...
}
```



#### NOTE

In both cases, the dates returned by the engine use the time zone configured in the server where it is running. In these examples, the time zone is UTC+2.

## APPENDIX B. CHANGES IN VERSION 4 OF THE API

This section enumerates the backwards-compatibility breaking changes that have been introduced in and since version 4 of the API.

### B.1. CHANGES IN API VERSION 4.0 (SUCCEEDING VERSION 3.6)

#### B.1.1. Removed YAML support

The support for YAML has been completely removed.

#### B.1.2. Renamed complex types

The following XML schema complex types have been renamed:

Version 3	Version 4
<b>API</b>	<b>Api</b>
<b>CPU</b>	<b>Cpu</b>
<b>CPUs</b>	<b>Cpus</b>
<b>CdRom</b>	<b>Cdrom</b>
<b>CdRoms</b>	<b>Cdroms</b>
<b>DNS</b>	<b>Dns</b>
<b>GuestNicConfiguration</b>	<b>NicConfiguration</b>
<b>GuestNicsConfiguration</b>	<b>NicConfigurations</b>
<b>HostNICStates</b>	<b>HostNicStates</b>
<b>HostNIC</b>	<b>HostNic</b>
<b>HostStorage</b>	<b>HostStorages</b>
<b>IO</b>	<b>Io</b>
<b>IP</b>	<b>Ip</b>
<b>IPs</b>	<b>Ips</b>
<b>KSM</b>	<b>Ksm</b>

Version 3	Version 4
<b>MAC</b>	<b>Mac</b>
<b>NIC</b>	<b>Nic</b>
<b>PreviewVMs</b>	<b>PreviewVms</b>
<b>QoS</b>	<b>Qos</b>
<b>QoSs</b>	<b>Qoss</b>
<b>RSDL</b>	<b>RsdI</b>
<b>SELinux</b>	<b>SeLinux</b>
<b>SPM</b>	<b>Spm</b>
<b>SSHPublicKey</b>	<b>SshPublicKey</b>
<b>SSHPublicKeys</b>	<b>SshPublicKeys</b>
<b>SSH</b>	<b>Ssh</b>
<b>SkipIfSDActive</b>	<b>SkipIfSdActive</b>
<b>Slaves</b>	<b>HostNics</b>
<b>Storage</b>	<b>HostStorage</b>
<b>SupportedVersions</b>	<b>Versions</b>
<b>VCpuPin</b>	<b>VcpuPin</b>
<b>VLAN</b>	<b>Vlan</b>
<b>VM</b>	<b>Vm</b>
<b>VMs</b>	<b>Vms</b>
<b>VirtIO_SCSI</b>	<b>VirtioScsi</b>
<b>WatchDog</b>	<b>Watchdog</b>
<b>WatchDogs</b>	<b>Watchdogs</b>

### B.1.3. Replaced the **Status** type with enum types

Currently the status of different objects is reported using the **Status** type, which contains a **state** string describing the status and another **detail** string for additional details. For example, the status of a virtual machine that is paused due to an IO error is currently reported as follows:

```
<vm>
...
<status>
  <state>paused</state>
  <detail>eio</detail>
</status>
...
</vm>
```

In version 4 of the API this **Status** type has been removed and replaced by enum types. When the additional **detail** string is needed it has been replaced with an additional **status\_detail** attribute. So, for example, the status of the same virtual machine will now be reported as follows:

```
<vm>
...
<status>paused</status>
<status_detail>eio</status_detail>
...
</vm>
```

### B.1.4. Remove the NIC **network** and **port\_mirroring** properties

The NIC **network** and **port\_mirroring** elements have been replaced by the **vnic\_profile** element, so when creating or updating a NIC instead of specifying the network and port mirroring configuration, these are previously specified creating a vNIC profile:

```
POST /ovirt-engine/api/vnicprofiles
```

```
<vnic_profile>
  <name>myprofile</name>
  <network id="..."/>
  <port_mirroring>true</port_mirroring>
</vnic_profile>
```

And then the NIC is created or referencing the existing vNIC profile:

```
PUT /ovirt-engine/api/vms/123/nics/456
```

```
<nic>
  <vnic_profile id="/vnicprofiles/..."/>
</nic>
```

The old elements and their meaning were preserved for backwards compatibility, but they have now been completely removed.

Note that the **network** element hasn't been removed from the XML schema because it is still used by the **initialization** element, but it will be completely ignored if provided when creating or updating a NIC.

### B.1.5. Remove the NIC active property

The NIC **active** property was replaced by **plugged** some time ago. It has been completely removed now.

### B.1.6. Remove the disk type property

The **type** property of disks has been removed, but kept in the XML schema and ignored. It has been completely removed now.

### B.1.7. Remove the disk size property

The disk **size** property has been replaced by **provisioned\_size** long ago. It has been completely removed now.

### B.1.8. Removed support for pinning a VM to a single host

Before version 3.6 the API had the possibility to pin a VM to a single host, using the **placement\_policy** element of the VM entity:

```
PUT /ovirt-engine/api/vms/123
```

```
<vm>
  <placement_policy>
    <host id="456"/>
  </placement_policy>
</vm>
```

In version 3.6 this capability was enhanced to support multiple hosts, and to do so a new **hosts** element was added:

```
PUT /ovirt-engine/api/vms/123
```

```
<vm>
  <placement_policy>
    <hosts>
      <host id="456"/>
      <host id="789"/>
      ...
    </hosts>
  </placement_policy>
</vm>
```

To preserve backwards compatibility the single **host** element was preserved. In 4.0 this has been removed, so applications will need to use the **hosts** element even if when pinning to a single host.

### B.1.9. Removed the capabilities.permits element

The list of permits is potentiall different for each cluster level, and it has been added to the **version** element long ago, but it has been kept into the **capabilities** element as well, just for backwards compatibility.

In 4.0 the **capabilities** service has been completely removed, and replaced by the new **clusterlevels** service. To find the permits supported by cluster level 4.0 a request like this should be used:

```
GET /ovirt-engine/api/clusterlevels/4.0
```

The result will be a document containing the information specific to that cluster level, in particular the set of supported permits:

```
<cluster_level id="4.0" href="/clusterlevels/4.0">
  ...
  <permits>
    <permit id="1">
      <name>create_vm</name>
      <administrative>>false</administrative>
    </permit>
    ...
  </permits>
</cluster_level>
```

### B.1.10. Removed the **storage\_manager** element

The **storage\_manager** element was replaced by the **spm** element some time ago. The old one was kept for backwards compatibility, but it has been completely removed now.

### B.1.11. Removed the data center **storage\_type** element

Data centers used to be associated to a specific storage type (NFS, Fiber Channel, iSCSI, etc) but they have been changed some time so that there are only two types: with local storage and with shared storage. A new **local** element was introduced to indicate this, and the old **storage\_type** element was preserved for backwards compatibility. This old element has now been completely removed.

### B.1.12. Remove the **timezone** element

The VM resource used to contain a **timezone** element to represent the time zone. This element only allowed a string:

```
<vm>
  <timezone>Europe/Madrid</timezone>
</vm>
```

This doesn't allow extension, and as a it was necessary to add the UTC offset, it was replaced with a new structured **time\_zone** element:

```
<vm>
  <time_zone>
    <name>Europe/Madrid</name>
    <utc_offset>GMT+1</utc_offset>
  </time_zone>
</vm>
```

The old **timezone** element was preserved, but it has been completely removed now.

### B.1.13. Removed the `guest_info` element

The `guest_info` element was used to hold information gathered by the guest agent, like the IP addresses and the fully qualified host name. This information is also available in other places. For example, the IP addresses are available within VM resource:

```
GET /ovirt-engine/api/vms/123
```

```
<vm>
  <guest_info>
    <ips>
      <ip address="192.168.122.30"/>
    </ips>
    <fqdn>myvm.example.com</fqdn>
  </guest_info>
</vm>
```

And also within the NIC resource, using the newer `reported_devices` element:

```
GET /ovirt-engine/api/vms/{vm:id}/nics/{nic:id}
```

```
<nic>
  <reported_devices>
    <reported_device>
      <name>eth0</name>
      <mac address="00:1a:4a:b5:4c:94"/>
      <ips>
        <ip address="192.168.1.115" version="v4"/>
        <ip address="fe80::21a:4aff:feb5:4c94" version="v6"/>
        <ip address="::1:21a:4aff:feb5:4c94" version="v6"/>
      </ips>
    </reported_device>
  </reported_devices>
</nic>
```

In addition this newer `reported_devices` element provides more complete information, like multiple IP addresses, MAC addresses, etc.

To remove this duplication the `guest_info` element has been removed.

To support the fully qualified domain name a new `fqdn` element has been added to the VM resource:

```
GET /ovirt-engine/api/vms/123
```

```
<vm>
  <fqdn>myvm.example.com</fqdn>
</vms>
```

This will contain the same information that `guest_info.fqdn` used to contain.

### B.1.14. Replaced CPU id attribute with type element

The `cpu` element used to have an `id` attribute that indicates the type of CPU:

```
<cpu id="Intel Nehalem Family">
  <architecture>X86_64</architecture>
  ...
</cpu>
```

This is in contradiction with the rest of the elements of the API model, where the **id** attribute is used for opaque identifiers. This **id** attribute has been replaced with a new **type** element:

```
<cpu>
  <type>Intel Nehalem Family</type>
  <architecture>X86_64</architecture>
</cpu>
```

### B.1.15. Use elements instead of attributes in CPU topology

In the past the CPU topology element used attributes for its properties:

```
<cpu>
  <topology sockets="1" cores="1" threads="1"/>
  ...
</cpu>
```

This is contrary to the common practice in the API. They have been replaced by inner elements:

```
<cpu>
  <topology>
    <sockets>1</sockets>
    <cores>1</cores>
    <threads>1</threads>
  </topology>
  ...
</cpu>
```

### B.1.16. Use elements instead of attributes in VCPU pin

In the past the VCPU pin element used attributes for its properties:

```
<cpu_tune>
  <vcpu_pin vcpu="0" cpu_set="0"/>
</cpu_tune>
```

This is contrary to the common practice in the API. They have been replaced by inner elements:

```
<cpu_tune>
  <vcpu_pin>
    <vcpu>0</vcpu>
    <cpu_set>0</cpu_set>
  </vcpu_pin>
</cpu_tune>
```

### B.1.17. Use elements instead of attributes in VCPU pin

In the past the **version** element used attributes for its properties:

```
<version major="3" minor="5" ../>
```

This is contrary to the common practice in the API. They have been replaced by inner elements:

```
<version>
  <major>3</minor>
  <minor>5</minor>
  ...
</version>
```

### B.1.18. Use elements instead of attributes in memory overcommit

In the past the **overcommit** element used attributes for its properties:

```
<memory_policy>
  <overcommit percent="100"/>
  ...
</memory_policy>
```

This is contrary to the common practice in the API. They have been replaced by inner elements:

```
<memory_policy>
  <overcommit>
    <percent>100</percent>
  </overcommit>
  ...
</memory_policy>
```

### B.1.19. Use elements instead of attributes in console

In the past the **console** element used attributes for its properties:

```
<console enabled="true"/>
```

This is contrary to the common practice in the API. They have been replaced by inner elements:

```
<console>
  <enabled>true</enabled>
</console>
```

### B.1.20. Use elements instead of attributes in VIRTIO SCSI

In the past the VIRTIO ISCSI element used attributes for its properties:

```
<virtio_scsi enabled="true"/>
```

This is contrary to the common practice in the API. They have been replaced by inner elements:

```
<virtio_scsi>
  <enabled>true</enabled>
</virtio_scsi>
```

### B.1.21. Use element instead of attribute for power management agent type

The power management **type** property was represented as an attribute:

```
<agent type="apc">
  <username>myuser</username>
  ...
</agent>
```

This is contrary to the common practice in the API. It has been replaced with an inner element:

```
<agent>
  <type>apc</type>
  <username>myuser</username>
  ...
</agent>
```

### B.1.22. Use elements instead of attributes in power management agent options

In the past the power management agent options element used attributes for its properties:

```
<options>
  <option name="port" value="22"/>
  <option name="slot" value="5"/>
  ...
</options>
```

This is contrary to the common practice in the API. They have been replaced with inner elements:

```
<options>
  <option>
    <name>port</name>
    <value>22</value>
  </option>
  <option>
    <name>slot</name>
    <value>5</value>
  </option>
  ...
</options>
```

### B.1.23. Use elements instead of attributes in IP address:

In the past the IP address element used attributes for its properties:

```
<ip address="192.168.122.1" netmask="255.255.255.0"/>
```

This is contrary to the common practice in the API. They have been replaced with inner elements:

```
<ip>
  <address>192.168.122.1</address>
  <netmask>255.255.255.0</netmask>
</ip>
```

### B.1.24. Use elements instead of attributes in MAC address:

In the past the MAC address element used attributes for its properties:

```
<mac address="66:f2:c5:5f:bb:8d"/>
```

This is contrary to the common practice in the API. They have been replaced by inner elements:

```
<mac>
  <address>66:f2:c5:5f:bb:8d</address>
</mac>
```

### B.1.25. Use elements instead of attributes in boot device:

In the past the boot device element used attributes for its properties:

```
<boot dev="cdrom"/>
```

This is contrary to the common practice in the API. They have been replaced by inner elements:

```
<boot>
  <dev>cdrom</dev>
</boot>
```

### B.1.26. Use element instead of attribute for operating system type

The operating system **type** property was represented as an attribute:

```
<os type="other">
  ...
</os>
```

This is contrary to the common practice in the API. It has been replaced with an inner element:

```
<os>
  <type>other</type>
  ...
</os>
```

### B.1.27. Removed the force parameter from the request to retrieve a host

The request to retrieve a host used to support a **force** matrix parameter to indicate that the data of the host should be refreshed (calling VDSM to reload host capabilities and devices) before retrieving it from the database:

```
GET /ovirt-engine/api/hosts/123;force
```

This **force** parameter has been superseded by the host **refresh** action, but kept for backwards compatibility. It has been completely removed now. Applications that require this functionality should perform two requests, first one to refresh the host:

```
POST /ovirt-engine/api/hosts/123/refresh
```

```
<action/>
```

And then one to retrieve it, without the **force** parameter:

```
GET /ovirt-engine/api/hosts/123
```

### B.1.28. Removed deprecated host power management configuration

The host power management configuration used to be part of the host resource, using embedded configuration elements:

```
<power_management type="apc">
  <enabled>true</enabled>
  <address>myaddress</address>
  <username>myaddress</username>
  <options>
    <option name="port" value="22"/>
    </option name="slot" value="5"/>
  </options>
  ...
</power_management>
```

This has been changed some time ago, in order to support multiple power management agents, introducing a new **/hosts/123/fenceagents** collection.

The old **type** attribute, the old **address**, **username** and **password** elements, and the inner **agents** element directly inside **power\_management** were preserved for backwards compatibility. All these elements have been completely removed, so the only way to query or modify the power management agents is now the **/hosts/123/fenceagents** sub-collection.

### B.1.29. Use multiple boot.devices.device instead of multiple boot

In the past the way to specify the boot sequence when starting a virtual machine was to use multiple **boot** elements, each containing a **dev** element. For example, to specify that the virtual machine should first try to boot from CDROM and then from hard disk the following request was used:

```
POST /ovirt-engine/api/vms/123/start
```

```
<action>
  <vm>
    ...
    <boot>
      <dev>cdrom</dev>
    </boot>
```

```

<boot>
  <dev>hd</dev>
</boot>
</vm>
</action>

```

The common practice in other parts of the API is to represent arrays with a wrapper element. In that case that wrapper element could be named **boots**, but that doesn't make much sense, as what can have multiple values here is the boot device, not the boot sequence. To fix this inconsistency this has been replaced with a single **boot** element that can contain multiple devices:

```
POST /ovirt-engine/api/vms/123/start
```

```

<action>
  <vm>
  ...
  <boot>
    <devices>
      <device>cdrom</device>
      <device>hd</device>
    </devices>
  </boot>
</vm>
</action>

```

### B.1.30. Removed the `disks.clone` and `disks.detach_only` elements

These elements aren't really part of the representation of disks, but parameters of the operations to add and remove virtual machines.

The **`disks.clone`** element was used to indicate that the disks of a new virtual machine have to be cloned:

```
POST /ovirt-engine/api/vms
```

```

<vm>
  ...
  <disks>
    <clone>true</clone>
  </disks>
</vm>

```

This has been now removed, and replaced by a new **`clone`** query parameter:

```
POST /ovirt-engine/api/vms?clone=true
```

```

<vm>
  ...
</vm>

```

The **`disks.detach_only`** element was used to indicate that when removing a virtual machine the disks do not have to be removed, but just detached from the virtual machine:

```
DELETE /ovirt-engine/api/vms/123
```

```
<action>
  <vm>
    <disks>
      <detach_only>true</detach_only>
    </disks>
  </vm>
</action>
```

This has been now removed, and replaced by a new **detach\_only** query parameter:

```
DELETE /ovirt-engine/api/vms/123?detach_only=true
```

### B.1.31. Rename element `vm_pool` to `vm_pool`

The names of the elements that represent pools of virtual machines used to be **vm\_pool** and **vm\_pools**. They have been renamed to **vm\_pool** and **vm\_pools** in order to have a consistent correspondence between names of complex types (**VmPool** and **VmPools** in this case) and elements.

### B.1.32. Use `logical_units` instead of multiple `logical_unit`

The logical units that are part of a volume group used to be reported as an unbounded number of **logical\_unit** elements. For example, when reporting the details of a storage domain:

```
GET /ovirt-engine/api/storagedomains/123
```

```
<storage_domain>
  ...
  <storage>
    ...
    <volume_group>
      <logical_unit>
        <!-- First LU -->
      </logical_unit>
      <logical_unit>
        <!-- Second LU -->
      </logical_unit>
    ...
    </volume_group>
  </storage>
</storage_domain>
```

This is contrary to the usual practice in the API, as list of elements are always wrapped with an element. This has been fixed now, so the list of logical units will be wrapped with the **logical\_units** element:

```
GET /ovirt-engine/api/storagedomains/123
```

```
<storage_domain>
  ...
  <storage>
    ...
```

```

<volume_group>
  <logical_units>
    <logical_unit>
      <!-- First LU -->
    </logical_unit>
    <logical_unit>
      <!-- Second LU -->
    </logical_unit>
    ...
  </logical_units>
</volume_group>
</storage>
</storage_domain>

```

### B.1.33. Removed the `snapshots.collapse_snapshots` element

This element isn't really part of the representation of snapshots, but a parameter of the operation that imports a virtual machine from an export storage domain:

```
POST /ovirt-engine/api/storagedomains/123/vms/456/import
```

```

<action>
  <vm>
    <snapshots>
      <collapse_snapshots>true</collapse_snapshots>
    </snapshots>
  </vm>
</action>

```

This has been now removed, and replaced by a new **collapse\_snapshots** query parameter:

```
POST /ovirt-engine/api/storagedomains/123/vms/456/import?collapse_snapshots=true
```

```
<action/>
```

### B.1.34. Renamed `storage` and `host_storage` elements

The host storage collection used the **storage** and **host\_storage** elements and the **Storage** and **HostStorage** complex types to report the storage associated to a host:

```
GET /ovirt-engine/api/hosts/123/storage
```

```

<host_storage>
  <storage>
    ...
  </storage>
  <storage>
    ...
  </storage>
  ...
</host_storage>

```

This doesn't follow the pattern used in the rest of the API, where the outer element is a plural name and the inner element is the same name but in singular. This has now been changed to use **host\_storages** as the outer element and **host\_storage** as the inner element:

```
GET /ovirt-engine/api/hosts/123/storage
```

```
<host_storages>
  <host_storage>
    ...
  </host_storage>
  <host_storage>
    ...
  </host_storage>
  ...
</host_storage>
```

### B.1.35. Removed the `permissions.clone` element

This element isn't really part of the representation of permissions, but a parameter of the operations to create virtual machines or templates:

```
POST /ovirt-engine/api/vms
```

```
<vm>
  <template id="...">
    <permissions>
      <clone>true</clone>
    </permissions>
  </template>
</action>
```

```
POST /ovirt-engine/api/templates
```

```
<template>
  <vm id="...">
    <permissions>
      <clone>true</clone>
    </permissions>
  </vm>
</template>
```

This has been now removed, and replaced by a new **clone\_permissions** query parameter:

```
POST /ovirt-engine/api/vms?clone_permissions=true
```

```
<vm>
  <template id="..."/>
</vm>
```

```
POST /ovirt-engine/api/templates?clone_permissions=true
```

```
<template>
  <vm id="..."/>
</template>
```

### B.1.36. Renamed the random number generator source elements

The random number generator sources used to be reported using a collection of **source** elements wrapped by an element with a name reflecting its use. For example, the required random number generator sources of a cluster used to be reported as follows:

```
GET /ovirt-engine/api/clusters/123
```

```
<cluster>
  ...
  <required_rng_sources>
    <source>random</source>
  </required_rng_sources>
  ...
</cluster>
```

And the random number generator sources supported by a host used to be reported as follows:

```
GET /ovirt-engine/api/hosts/123
```

```
<host>
  ...
  <hardware_information>
    <supported_rng_sources>
      <source>random</source>
    </supported_rng_sources>
  </hardware_information>
  ...
</host>
```

This isn't consistent with the rest of the API, where collections are wrapped by a name in plural and elements by the same name in singular. This has been now fixed. The required random number generator sources will now be reported as follows:

```
GET /ovirt-engine/api/clusters/123
```

```
<cluster>
  <required_rng_sources>
    <required_rng_source>random</required_rng_source>
  </required_rng_sources>
  ...
</cluster>
```

And the random number generator sources supported by a host will be reported as follows:

```
GET /ovirt-engine/api/hosts/123
```

```

<host>
  ...
  <hardware_information>
    <supported_rng_sources>
      <supported_rng_source>random</supported_rng_source>
    </supported_rng_sources>
  </hardware_information>
  ...
</host>

```

Note the use of **required\_rng\_source** and **supported\_rng\_source** instead of just **source**.

### B.1.37. Removed the intermediate **tag.parent** element

The relationship between a tag and its parent tag used to be represented using an intermediate **parent** tag, that in turn contains another **tag** element:

```

<tag>
  <name>mytag</name>
  <parent>
    <tag id="..." href="..."/>
  </parent>
</tag>

```

This structure has been simplified so that only one **parent** element is used now:

```

<tag>
  <name>mytag</name>
  <parent id="..." href="..."/>
</tag>

```

### B.1.38. Remove scheduling built-in names and thresholds

In the past the specification of scheduling policies for clusters was based in built-in names and thresholds. For example a cluster that used the **evenly distributed** scheduling policy was represented as follows:

```

<cluster>
  <name>mycluster</name>
  <scheduling_policy>
    <policy>evenly_distributed</policy>
    <thresholds high="80" duration="120"/>
  </scheduling_policy>
  ...
</cluster>

```

This mechanism was replaced with a top level **/schedulingpolicies** collection where scheduling policies can be defined with arbitrary names and properties. For example, the same scheduling policy is represented as follows in that top level collection:

```

<scheduling_policy>
  <name>evenly_distributed</name>
  <properties>

```

```

<property>
  <name>CpuOverCommitDurationMinutes</name>
  <value>2</value>
</property>
<property>
  <name>HighUtilization</name>
  <value>80</value>
</property>
</properties>
</scheduling_policy>

```

The representation of the cluster references the scheduling policy with its identifier:

```

<cluster>
  <name>mycluster</name>
  <scheduling_policy id="..." />
  ...
</cluster>

```

To preserve backwards compatibility the old **policy** and **thresholds** elements were preserved. The scheduling policy representation embedded within the cluster was also preserved. All these things have been completely removed now, so the only way to reference a scheduling policy when retrieving, creating or updating a cluster is to reference an existing one using its identifier. For example, when retrieving a cluster only the **id** (and **href**) will be populated:

```
GET /ovirt-engine/api/clusters/123
```

```

<cluster>
  ...
  <scheduling_policy id="..." href="..." />
  ...
</cluster>

```

When creating or updating a cluster only the **id** will be accepted.

### B.1.39. Removed the **bricks.replica\_count** and **bricks.stripe\_count** elements

These elements aren't really part of the representation of a collection of bricks, but parameters of the operations to add and remove bricks. They have now been removed, and replaced by new **replica\_count** and **stripe\_count** parameters:

```
POST .../bricks?replica_count=3&stripe_count=2
```

```
DELETE .../bricks?replica_count=3
```

### B.1.40. Renamed the **statistics type** property to **kind**

The statistics used to be represented using a **type** element that indicates the kind of statistic (gauge, counter, etc) and also a **type** attribute that indicates the type of the values (integer, string, etc):

```

<statistic>
  <type>GAUGE</type>

```

```

<values type="INTEGER">
  <value>...</value>
  <value>...</value>
  ...
</values>
</statistic>

```

To avoid the use of the **type** concept for both things the first has been replaced by **kind**, and both **kind** and **type** are now elements:

```

<statistic>
  <kind>gauge</kind>
  <type>integer</type>
  <values>
    <value>...</value>
    <value>...</value>
    ...
  </values>
</statistic>

```

#### B.1.41. Use multiple `vcpu_pins.vcpu_pin` instead of multiple `vcpu_pin`

In the past the way to specify the virtual to physical CPU pinning of a virtual machine was to use multiple **vcpu\_pin** elements:

```

<vm>
  <cpu>
    <cpu_tune>
      <vcpu_pin>...</vcpu_pin>
      <vcpu_pin>...</vcpu_pin>
      ...
    </cpu_tune>
  </cpu>
</vm>

```

In order to conform to the common practice in other parts of the API this has been changed to use a wrapper element, in this case **vcpu\_pins**:

```

<vm>
  <cpu>
    <cpu_tune>
      <vcpu_pins>
        <vcpu_pin>...</vcpu_pin>
        <vcpu_pin>...</vcpu_pin>
        ...
      </vcpu_pins>
    </cpu_tune>
  </cpu>
</vm>

```

#### B.1.42. Use force parameter to force remove a data center

The operation that removes a data center supports a **force** parameter. In order to use it the **DELETE** operation used to support an optional action parameter:

```
DELETE /ovirt-engine/api/datacenters/123
```

```
<action>
  <force>true</force>
</action>
```

This optional action parameter has been replaced with an optional parameter:

```
DELETE /ovirt-engine/api/datacenters/123?force=true
```

### B.1.43. Use force parameter to force remove a host

The operation that removes a host supports a **force** parameter. In order to use it the **DELETE** operation used to support an optional action parameter:

```
DELETE /ovirt-engine/api/host/123
```

```
<action>
  <force>true</force>
</action>
```

This optional action parameter has been replaced with an optional parameter:

```
DELETE /ovirt-engine/api/host/123?force=true
```

### B.1.44. Use parameters for force remove storage domain

The operation that removes a storage domain supports the **force**, **destroy** and **host** parameters. These parameters were passed to the **DELETE** method using the representation of the storage domain as the body:

```
DELETE /ovirt-engine/api/storagedomains/123
```

```
<storage_domain>
  <force>...</force>
  <destroy>...</destroy>
  <host id="...">
    <name>...</name>
  </host>
</storage_domain>
```

This was problematic, as the HTTP **DELETE** parameters shouldn't have a body, and the representation of the storage domain shouldn't include things that aren't attributes of the storage domain, rather parameters of the operation.

The **force**, **delete** and **host** attributes have been replaced by equivalent parameters, and the operation doesn't now accept a body. For example, now the correct way to delete a storage domain with the **force** parameter is the following:

-

```
DELETE /ovirt-engine/api/storagedomain/123?host=myhost&force=true
```

To delete with the **destroy** parameter:

```
DELETE /ovirt-engine/api/storagedomain/123?host=myhost&destroy=true
```

### B.1.45. Use host parameter to remove storage server connection

The operation that removes a storage server connection supports a **host** parameter. In order to use it the **DELETE** method used to support an optional action parameter:

```
DELETE /ovirt-engine/api/storageconnections/123
```

```
<action>
  <host id="...">
    <name>...</name>
  </host>
</action>
```

This optional action parameter has been replaced with an optional parameter:

```
DELETE /ovirt-engine/api/storageconnections/123?host=myhost
```

### B.1.46. Use force and storage\_domain parameters to remove template disks

The operation that removes a template disk supports the **force** and **storage\_domain** parameters. In order to use it them the **DELETE** method used to support an optional action parameter:

```
DELETE /ovirt-engine/api/templates/123/disks/456
```

```
<action>
  <force>...</force>
  <storage_domain id="...">/>
</action>
```

In version 4 of the API this operation has been moved to the new **diskattachments** collection, and the request body has been replaced with the query parameters **force** and **storage\_domain**:

```
DELETE /ovirt-engine/api/templates/123/disksattachments/456?force=true
```

```
DELETE /ovirt-engine/api/templates/123/disksattachments/456?storage_domain=123
```

### B.1.47. Do not remove disks via the VM disk API

Removing an entity by deleting **/vms/123/disks/456** means removing the relationship between the VM and the disk - i.e., this operation should just detach the disk from the VM. This operation is no longer able to remove disks completely from the system, which was prone to user errors and had unreverseable consequences. To remove a disk, instead use the **/disk/456** API:

```
DELETE /ovirt-engine/api/disks/456
```

### B.1.48. Use force query parameter to force remove a virtual machine

The operation that removes a virtual machine supports a **force** parameter. In order to use it the **DELETE** method used to support an optional action parameter:

```
DELETE /ovirt-engine/api/vms/123
```

```
<action>
  <force>true</force>
</action>
```

This optional action parameter has been replaced with an optional query parameter:

```
DELETE /ovirt-engine/api/vms/123?force=true
```

### B.1.49. Use POST instead of DELETE to remove multiple bricks

The operation that removes multiple Gluster bricks was implemented using the **DELETE** method and passing the list of bricks as the body of the request:

```
DELETE /ovirt-engine/api/clusters/123/glustervolumes/456/bricks
```

```
<bricks>
  <bricks id="..."/>
  <bricks id="..."/>
  ...
</bricks>
```

This is problematic because the **DELETE** method shouldn't have a body, so it has been replaced with a new **remove** action that uses the **POST** method:

```
POST /ovirt-engine/api/clusters/123/glustervolumes/456/bricks/remove
```

```
<bricks>
  <bricks id="..."/>
  <bricks id="..."/>
  ...
</bricks>
```

### B.1.50. Removed the scheduling\_policy.policy element

The element was kept for backward compatibility. Use **scheduling\_policy.name** instead.

```
POST /ovirt-engine/api/schedulingpolicies
```

```
<scheduling_policy>
  ...
  <name>policy_name</name>
  ...
</scheduling_policy>
```

```
PUT /ovirt-engine/api/schedulingpolicies/123
```

```
<scheduling_policy>
...
<name>policy_name</name>
...
</scheduling_policy>
```

### B.1.51. Added `snapshot.snapshot_type`

Enums are being gradually introduced to the API. Some fields which were string until now, are replaced with an appropriate enum. One such field is `vm.type`. But this field is inherited by `snapshot`, and `snapshot` type is different than `vm` type. So a new field has been added to `snapshot` entity:

**`snapshot.snapshot_type`.**

```
<snapshot>
...
<snapshot_type>regular|active|stateless|preview</snapshot_type>
...
</snapshot>
```

### B.1.52. Removed `move` action from `VM`

The deprecated **`move`** action of the **`VM`** entity has been removed. Instead, you can move individual disks.

### B.1.53. Moved `reported_configurations.in_sync` to `network_attachment`

In version 3 of the API the XML schema type **`ReportedConfigurations`** had a **`in_sync`** property:

```
<network_attachment>
  <reported_configurations>
    <in_sync>true</in_sync>
    <reported_configuration>
      ...
    </reported_configuration>
    ...
  </reported_configurations>
</network_attachment>
```

In the specification mechanism used by version 4 of the API this can't be expressed, because list types (the list of reported configurations) can't have attributes. To be able to represent it the attribute has been moved to the enclosing **`network_attachment`**:

```
<network_attachment>
  <in_sync>true</in_sync>
  <reported_configurations>
    <reported_configuration>
      ...
    </reported_configuration>
```

```
...
</reported_configurations>
</network_attachment>
```

### B.1.54. Replaced capabilities with clusterlevels

The top level **capabilities** collection has been replaced by the new **clusterlevels** collection. This new collection will contain the information that isn't available in the model, like the list of CPU types available for each cluster level:

```
GET /ovirt-engine/api/clusterlevels
```

This will return a list of **ClusterLevel** objects containing the details for all the cluster levels supported by the system:

```
<cluster_levels>
<cluster_level id="3.6" href="/clusterlevels/3.6">
  <cpu_types>
    <cpu_type>
      <name>Intel Nehalem Family</name>
      <level>2</level>
      <architecture>x86_64</architecture>
    </cpu_type>
    ...
  </cpu_types>
  ...
</cluster_level>
</cluster_levels>
```

Each specific cluster level has its own subresource, identified by the version itself:

```
GET /ovirt-engine/api/clusterlevels/3.6
```

This will return the details of that version:

```
<cluster_level id="3.6" href="/clusterlevels/3.6">
  <cpu_types>
    <cpu_type>
      <name>Intel Nehalem Family</name>
      <level>2</level>
      <architecture>x86_64</architecture>
    </cpu_type>
    ...
  </cpu_types>
  ...
</cluster_level>
```

### B.1.55. Replaced disks with diskattachments

In version 3 of the API virtual machines and templates had a **disks** collection containing all the information of the disks attached to them. In version 4 of the API these **disks** collections have been removed and replaced with a new **diskattachments** collection that will contain only the references to

the disk and the attributes that are specific of the relationship between disks and the virtual machine or template that they are attached to: **interface** and **bootable**.

To find what disks are attached to a virtual machine, for example, send a request like this:

```
GET /ovirt-engine/api/vms/123/diskattachments
```

That will return a response like this:

```
<disk_attachments>
  <disk_attachment href="/vms/123/diskattachments/456" id="456">
    <bootable>>false</bootable>
    <interface>virtio</interface>
    <disk href="/disks/456" id="456"/>
    <vm href="/vms/123" id="123"/>
  </disk_attachment>
  ...
</disk_attachments>
```

To find the rest of the details of the disk, follow the link provided.

Adding disks to a virtual machine or template uses the new **disk\_attachment** element as well: request like this:

```
POST /ovirt-engine/api/vms/123/diskattachments
```

With the following body if the disk doesn't exist and you want to create it:

```
<disk_attachment>
  <bootable>>false</bootable>
  <interface>virtio</interface>
  <disk>
    <description>My disk</description>
    <format>cow</format>
    <name>mydisk</name>
    <provisioned_size>1048576</provisioned_size>
    <storage_domains>
      <storage_domain>
        <name>mydata</name>
      </storage_domain>
    </storage_domains>
  </disk>
</disk_attachment>
```

Or with the following body if the disk already exists, and you just want to attach it to the virtual machine:

```
<disk_attachment>
  <bootable>>false</bootable>
  <interface>virtio</interface>
  <disk id="456"/>
</disk_attachment>
```

Take into account that the **vm.disks** and **template.disks** attributes have **disk\_attachments** for all usages. For example, when creating a template the **vm.disks** element was used to indicate in which

storage domain to create the disks of the template. This usage has also been replaced by **vm.disk\_attachments**, so the request to create a template with disks in specific storage domains will now look like this:

```
<template>
  <name>mytemplate</name>
  <vm id="123">
    <disk_attachments>
      <disk_attachment>
        <disk id="456">
          <storage_domains>
            <storage_domain id="789"/>
          </storage_domains>
        </disk>
      </disk_attachment>
      ...
    </disk_attachments>
  </vm>
</template>
```

### B.1.56. Use **iscsi\_targets** element to discover unregistered storage

In version 3 of the API the operation to discover unregistered storage domains used to receive a list of iSCSI targets, using multiple **iscsi\_target** elements:

```
POST /ovirt-engine/api/hosts/123/unregisteredstoragedomaindiscover
```

```
<action>
  <iscsi>
    <address>myiscsiserver</address>
  </iscsi>
  <iscsi_target>iqn.2016-07.com.example:mytarget1</iscsi_target>
  <iscsi_target>iqn.2016-07.com.example:mytarget2</iscsi_target>
</action>
```

In version 4 of the API all repeating elements, like **iscsi\_target** in this case, are wrapped with another element, **iscsi\_targets** in case. So the same request should now look like this:

```
POST /ovirt-engine/api/hosts/123/unregisteredstoragedomaindiscover
```

```
<action>
  <iscsi>
    <address>myiscsiserver</address>
  </iscsi>
  <iscsi_targets>
    <iscsi_target>iqn.2016-07.com.example:mytarget1</iscsi_target>
    <iscsi_target>iqn.2016-07.com.example:mytarget2</iscsi_target>
  </iscsi_targets>
</action>
```

## B.2. CHANGES IN ENGINE VERSION 4.5

## B.2.1. Openstack Volume (Cinder) integration replaced by Managed Block Storage.

## APPENDIX C. LEGAL NOTICE

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