



Red Hat Satellite 6.1 API Guide

Reference documentation for using Satellite's Representational
State Transfer (REST) API
Edition 2

Red Hat Satellite Documentation
Team

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Abstract

This guide explains the concepts of and some basic examples of the Red Hat Satellite 6.1 Representational State Transfer (REST) API.

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Chapter 1. Introduction to Red Hat Satellite

Red Hat Satellite is an Infrastructure-as-a-Service (IaaS) application that provides tools to update systems within hybrid clouds. Satellite is a systems management server that can be used to configure new systems, subscribe to updates, and maintain installations in distributed environments. It provides content, manages Red Hat entitlements, performs provisioning and configuration management of predefined standard operating environments.

1.1. The Red Hat Satellite API

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



Note

The full API reference is available at **<https://satellite6.example.com/apidoc/v2.html>** on your Satellite 6 server. Be aware that even though versions 1 and 2 of the Satellite 6 API are available, Red Hat only supports version 2.

The benefits of the REST 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 Red Hat Satellite 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 the ability to:

- integrate with enterprise IT systems;
- integrate with third-party applications;
- perform automated maintenance or error checking tasks; and
- automate repetitive tasks with scripts.

This documentation aims to provide developers and administrators with instructions and examples to help harness the functionality of Red Hat Satellite through the REST APIs. The full API reference is available at **<https://hostname/apidoc/v2.html>** on your Satellite 6 server.

1.2. 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 independent of any other request and contains all necessary information to complete the request.

Chapter 2. Authentication

2.1. Using SSL Authentication

Red Hat Satellite uses HTTPS ^[1] over SSL, which provides a degree of encryption and identity verification when communicating with a Red Hat Satellite host.

Each Red Hat Satellite host uses a self-signed certificate. This certificate acts as both the server certificate to verify the encryption key and the certificate authority (CA) to trust the identity of the Red Hat Satellite server.

Procedure 2.1. Obtaining a Certificate

This method uses SSH to copy the server's self-signed certificate.

1. Use **ssh** to connect to your Satellite server as the **root** user:

```
# ssh root@satellite.example.com
```

2. Search your server's configuration directory for the certificate location:

```
# grep -r "SSLCertificateFile" /etc/httpd/conf.d
```



Note

The default location of self-signed certificates is usually **/var/www/html/pub/katello-server-ca.crt**.

3. Copy this certificate to your client.

```
# scp /path/to/ca-cert-file username@client:~/
```

Use this certificate on your client as a certificate authority (CA) to verify the identity of the host server.

You can use the **--cacert** option with the **curl** command as follows:

```
# curl -X GET -u admin:changeme -H "Accept:application/json" --cacert  
/path/to/ca-cert-file  
https://satellite.example.com/katello/api/organizations
```

Use the following command to permanently include the certificate in the **curl** CA store:

```
# certutil -d sql:$HOME/.pki/nssdb -A -t TC -n "Red Hat Satellite" -i  
/path/to/ca-cert-file
```

This imports the certificate into the Network Security Services (NSS) database, which means you can omit the **--cacert** option for each request.

2.2. HTTP Authentication

All requests to the Satellite API require a suitable user name and password. The API uses HTTP Basic Authentication ^[2] to encode these credentials, which are then added to the Authorization header. If a request does not include an appropriate Authorization header, the API returns a 401 Authorization Required error.

Table 2.1. Encoding Credentials for Access to an API

Item	Value
user name	admin
password	changeme
unencoded credentials	admin:changeme
base64 encoded credentials	YWRtaW46Y2hhbmdlbWU=

An API user provides the base64 encoded credentials as shown:

Example 2.1. Access to a REST API with Appropriate Credentials

```
HEAD [base] HTTP/1.1
Host: [host]
Authorization: Basic YWRtaW46MTIzNDU2

HTTP/1.1 200 OK
...
```



Important

Basic authentication involves potentially sensitive information, such as passwords, sent as plain text. The REST API requires 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 that the encoded credentials be on a single line within the header.

[1] HTTPS is described in [RFC 2818 HTTP Over TLS](#).

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

Chapter 3. Common REST API Functions

3.1. Using GET to Query Resources

This section describes how to use **GET** requests to query the Satellite server for various types of information. **GET** requests do not make any changes to Satellite resources, they only return information about resources.

3.1.1. Listing All Resources

Obtain a list of resources with a **GET** request on the collection URI obtained from the entry point.

Include an Accept HTTP header to define the MIME type for the response format.

```
GET /api/collection HTTP/1.1
Accept: MIME type
```

3.1.2. Determining the State of a Resource

Determine the state of a resource with a **GET** request on a URI obtained from a collection listing.

Include an Accept HTTP header to define the MIME type for the response format.

```
GET /api/collection/resource_id HTTP/1.1
Accept: MIME type
```

3.2. Using POST to Create Resources

This section describes how to use **POST** requests to create Satellite resources. Special permissions might be required for some **POST** requests; see [Appendix A, API Permissions Matrix](#) for information about API permissions.

3.2.1. Creating a Resource

Create a new resource with a **POST** request to the collection URI containing a representation of the new resource.

A **POST** request requires a Content-Type header. This informs the API of the representation MIME type in the body content as part of the request.

Include an Accept HTTP header to define the MIME type for the response format.

Each resource type has its own specific required properties. The client supplies these properties when creating a new resource. Refer to the individual resource type documentation for more details.

If a required property is absent, the creation fails with a representation indicating the missing elements.

```
POST /api/collection HTTP/1.1
Accept: MIME type
```

```
Content-Type: MIME type
```

```
body
```

3.3. Using PUT to Modify Resources

This section describes how to use **PUT** requests to modify Satellite resources. Special permissions might be required for some **PUT** requests; see [Appendix A, API Permissions Matrix](#) for information about API permissions.

3.3.1. Updating a Resource

Modify resource properties with a **PUT** request containing an updated description from a previous **GET** request for the resource URI. Details on modifiable properties are found in the individual resource type documentation.

A **PUT** request requires a Content-Type header. This informs the API of the representation MIME type in the body content as part of the request.

Include an Accept HTTP header to define the MIME type for the response format.

```
PUT /api/collection/resource_id HTTP/1.1
```

```
Accept: MIME type
```

```
Content-Type: MIME type
```

```
body
```

This does not include immutable resource properties that an API user has attempted to modify. If you attempt to modify a strictly immutable resource property, the API reports a conflict with an error message representation in the response body.

Properties omitted from the representation are ignored and not changed.

3.4. Using DELETE to Delete Resources

This section describes how to use **DELETE** requests to delete Satellite resources. Special permissions might be required for some **DELETE** requests; see [Appendix A, API Permissions Matrix](#) for information about API permissions.

3.4.1. Deleting a Resource

Delete a resource with a **DELETE** request sent to its URI.

Include an Accept HTTP header to define the MIME type for the response format.

```
DELETE /api/collection/resource_id HTTP/1.1
```

```
Accept: MIME type
```

Some cases require optional body content in the **DELETE** request to specify additional properties. A **DELETE** request with optional body content requires a Content-Type header to inform the API of the representation MIME type in the body content. If a **DELETE** request contains no body content, omit the Content-Type header.

Chapter 4. Examples

4.1. API Examples Using Ruby

The following examples describe how to perform various tasks using Ruby to communicate with the Satellite API.



Important

These are example scripts and commands. Ensure you review these scripts carefully before use, and replace any variables, user names, passwords, and other information to suit your own deployment.

4.1.1. Creating Objects Using Ruby

The following script connects to the Red Hat Satellite 6 API and creates a new organization, then creates three environments in the new organization. If the organization already exists, the script uses that organization. If any of the environments already exist in the organization, the script raises an error and quits.



Note

This script requires the *rest-client* and *json* Ruby gems.

```
#!/usr/bin/ruby

require 'rest-client'
require 'json'

url = 'https://satellite6.example.com/api/v2/'
katello_url = 'https://satellite6.example.com/katello/api/v2/'
$username = 'admin'
$password = 'changeme'

org_name = "MyOrg"
environments = ["Development", "Testing", "Production"]

def get_json(location)
  response = RestClient::Request.new(
    :method => :get,
    :url => location,
    :user => $username,
    :password => $password,
    :headers => { :accept => :json,
                  :content_type => :json }
  ).execute
  results = JSON.parse(response.to_str)
end
```

```

def post_json(location, json_data)
  response = RestClient::Request.new(
    :method => :post,
    :url => location,
    :user => $username,
    :password => $password,
    :headers => { :accept => :json,
                  :content_type => :json},
    :payload => json_data
  ).execute
  results = JSON.parse(response.to_str)
end

orgs = get_json(url+"organizations")
org_list = {}
orgs['results'].each do |org|
  org_list[org['id']] = org['name']
end

if !org_list.has_value?(org_name)
  org_id = post_json(url+"organizations", JSON.generate({"name"=>
org_name}))["organization"]["id"]
  puts "Creating organization: \t" + org_name
else
  org_id = org_list.key(org_name)
  puts "Organization \"\" + org_name + "\" exists"
end

envs = get_json(katello_url+"organizations/" + org_id.to_s +
"/environments")
env_list = {}
envs['results'].each do |env|
  env_list[env['id']] = env['name']
end
prior_env_id = env_list.key("Library")

environments.each do |e|
  if env_list.has_value?(e)
    puts "ERROR: One of the Environments is not unique to organization"
    exit()
  end
end

environments.each do |environment|
  new_env_id = post_json(katello_url+"organizations/" + org_id.to_s +
"/environments", JSON.generate({"name" => environment, "organization_id" =>
org_id,"prior" => prior_env_id}))["id"]
  puts "Creating environment: \t" + environment
  prior_env_id = new_env_id
end
exit()

```



Warning

This script does not use SSL communication for interacting with the REST API and is provided here only as a demonstration.

4.2. API Examples Using Python

The following examples describe how to perform various tasks using Python to communicate with the Satellite API.



Important

These are example scripts and commands. Ensure you review these scripts carefully before use, and replace any variables, user names, passwords, and other information to suit your own deployment.

4.2.1. Creating Objects Using Python

The following script connects to the Red Hat Satellite 6 API and creates a new organization, then creates three environments in the new organization. If the organization already exists, the script uses that organization. If any of the environments already exist in the organization, the script raises an error and quits.



Note

This script requires the *requests* and *json* modules.

```
#!/usr/bin/python

import json
import sys

try:
    import requests
except ImportError:
    print "Please install the python-requests module."
    sys.exit(-1)

# URL to your Satellite 6 server
URL = "https://satellite6.example.com"
# URL for the API to your deployed Satellite 6 server
SAT_API = "%s/katello/api/v2/" % URL
# Katello-specific API
KATELLO_API = "%s/katello/api/" % URL
POST_HEADERS = {'content-type': 'application/json'}
# Default credentials to login to Satellite 6
USERNAME = "admin"
```

```

PASSWORD = "changeme"
# Ignore SSL for now
SSL_VERIFY = False

# Name of the organization to be either created or used
ORG_NAME = "MyOrg"
# Name for life cycle environments to be either created or used
ENVIRONMENTS = ["Development", "Testing", "Production"]

def get_json(location):
    """
    Performs a GET using the passed URL location
    """

    r = requests.get(location, auth=(USERNAME, PASSWORD), verify=SSL_VERIFY)

    return r.json()

def post_json(location, json_data):
    """
    Performs a POST and passes the data to the URL location
    """

    result = requests.post(
        location,
        data=json_data,
        auth=(USERNAME, PASSWORD),
        verify=SSL_VERIFY,
        headers=POST_HEADERS)

    return result.json()

def main():
    """
    Main routine that creates or re-uses an organization and
    life cycle environments. If life cycle environments already
    exist, exit out.
    """

    # Check if our organization already exists
    org = get_json(SAT_API + "organizations/" + ORG_NAME)

    # If our organization is not found, create it
    if org.get('error', None):
        org_id = post_json(
            SAT_API + "organizations/",
            json.dumps({"name": ORG_NAME}))["organization"]["id"]
        print "Creating organization: \t" + ORG_NAME
    else:
        # Our organization exists, so let's grab it
        org_id = org['id']
        print "Organization '%s' exists." % ORG_NAME

```

```

# Now, let's fetch all available life cycle environments for this org...
envs = get_json(
    SAT_API + "organizations/" + str(org_id) + "/environments/")

# ... and add them to a dictionary, with respective 'Prior' environment
prior_env_id = 0
env_list = {}
for env in envs['results']:
    env_list[env['id']] = env['name']
    prior_env_id = env['id'] if env['name'] == "Library" else
prior_env_id

# Exit the script if at least one life cycle environment already exists
if all(environment in env_list.values() for environment in
ENVIRONMENTS):
    print "ERROR: One of the Environments is not unique to organization"
    sys.exit(-1)

# Create life cycle environments
for environment in ENVIRONMENTS:
    new_env_id = post_json(
        SAT_API + "organizations/" + str(org_id) + "/environments/",
        json.dumps(
            {
                "name": environment,
                "organization_id": org_id,
                "prior": prior_env_id}
        ))["id"]

    print "Creating environment: \t" + environment
    prior_env_id = new_env_id

if __name__ == "__main__":
    main()

```



Warning

This script does not use SSL verification for interacting with the REST API and is provided here only as a demonstration.

4.2.2. Running Queries Using Python

You can create and run a Python script to achieve the same results as those described in [Section 4.3, “API Examples Using Curl”](#). The following example script describes this approach. First, create an executable file called **sat6api.py** and then add the following content:

```

#!/usr/bin/python
import json
import sys
try:
    import requests
except ImportError:

```



```

print "Please install the python-requests module."
sys.exit(-1)

SAT_API = 'https://satellite6.example.com/api/v2/'
USERNAME = "admin"
PASSWORD = "password"
SSL_VERIFY = False    # Ignore SSL for now

def get_json(url):
    # Performs a GET using the passed URL location
    r = requests.get(url, auth=(USERNAME, PASSWORD), verify=SSL_VERIFY)
    return r.json()

def get_results(url):
    jsn = get_json(url)
    if jsn.get('error'):
        print "Error: " + jsn['error']['message']
    else:
        if jsn.get('results'):
            return jsn['results']
        elif 'results' not in jsn:
            return jsn
        else:
            print "No results found"
    return None

def display_all_results(url):
    results = get_results(url)
    if results:
        print json.dumps(results, indent=4, sort_keys=True)

def display_info_for_hosts(url):
    hosts = get_results(url)
    if hosts:
        for host in hosts:
            print "ID: %-10d Name: %-30s IP: %-20s OS: %-30s" % (host['id'],
host['name'], host['ip'], host['operatingsystem_name'])

def main():
    host = 'satellite6.example.com'
    print "Displaying all info for host %s ..." % host
    display_all_results(SAT_API + 'hosts/' + host)

    print "Displaying all facts for host %s ..." % host
    display_all_results(SAT_API + 'hosts/%s/facts' % host)

    host_pattern = 'example'
    print "Displaying basic info for hosts matching pattern '%s'..." %
host_pattern
    display_info_for_hosts(SAT_API + 'hosts?search=' + host_pattern)

    environment = 'production'
    print "Displaying basic info for hosts in environment %s..." %
environment
    display_info_for_hosts(SAT_API + 'hosts?search=environment=' +
environment)

```

```

model = 'RHEV Hypervisor'
print "Displaying basic info for hosts with model name %s..." % model
display_info_for_hosts(SAT_API + 'hosts?search=model="' + model + '"')

if __name__ == "__main__":
    main()

```

You can then run `./sat6api.py` from the command line to display the results.

4.3. API Examples Using Curl

This section describes how to use **curl** to perform various tasks using the Satellite API. The first section describes simple queries, such as listing general host information, searching for facts, and using pattern matching. The second section describes how to modify Satellite resources, with examples of how to upload and import content to your Satellite server.

4.3.1. Performing Simple Queries

The following examples describe how to use **curl** to search for information about your Satellite deployment. These examples include both the actual command and some sample output, and example values for user names and passwords. Expect different results for each deployment. These examples also use the **python -mjson.tool** command to format the output.



Note

Be aware that if you use the **-s** (silent) option with **curl** that you will not see a progress meter or any error messages.

If you use the **-k** (insecure) option, you need to use **HTTPS** and also include the **-u** (user name) option. You can use the form **-u username[:password]** or, if you do not include the password, the command prompts you to enter it. Red Hat recommends that you do not include the password as part of the command, because it then becomes part of your shell history and might present a security risk. These examples include the password only for the sake of simplicity.

Retrieving a List of Resources

The following is a basic query that returns a list of resources. Such requests return a list of data wrapped in metadata, while other request types only return the actual object.

```

$ curl -X GET -s -k -u admin:password
https://satellite6.example.com/api/v2/hosts | python -mjson.tool

{
    "total" => 2,
    "subtotal" => 2,
    "page" => 1,
    "per_page" => 1000,
    "search" => nil,
    "sort" => {
        "by" => nil,

```

```

    "order" => nil
  },
  "results" => [
    .
    .
    .
  ]

```

Running a Generic Host Query

The following query returns information for the host **satellite6.example.com**:

```

$ curl -X GET -s -k -u admin:password
https://satellite6.example.com/api/v2/hosts/satellite6.example.com | python
-mjson.tool
{
  "all_puppetclasses": [],
  "architecture_id": 1,
  "architecture_name": "x86_64",
  "build": false,
  "capabilities": [
    "build"
  ],
  "certname": "satellite6.example.com",
  "comment": null,
  "compute_profile_id": null,
  ...
}

```

Searching for Facts for a Specific Host

The following query returns all facts for the host **satellite6.example.com**:

```

$ curl -X GET -s -k -u admin:password
https://satellite6.example.com/api/v2/hosts/satellite6.example.com/facts |
python -mjson.tool
{
  ...
  "results": {
    "satellite6.example.com": {
      "augeasversion": "1.0.0",
      "bios_release_date": "01/01/2007",
      "bios_version": "0.5.1",
      "blockdevice_sr0_size": "1073741312",
      "facterversion": "1.7.6",
      ...
    }
  }
}

```

Searching all Hosts for Matching Patterns

The following query returns all hosts that match the pattern "example":

```

$ curl -X GET -s -k -u admin:password
https://satellite6.example.com/api/v2/hosts?search=example | python -
mjson.tool
{
  ...
}

```

```

    "results": [
      {
        "name": "satellite6.example.com",
        ...
      }
    ],
    "search": "example",
  }

```

Searching for all Hosts in a Specific Environment

The following query returns all hosts in the "production" environment:

```

$ curl -X GET -s -k -u admin:password
https://satellite6.example.com/api/v2/hosts?search=environment=production |
python -mjson.tool
{
  ...
  "results": [
    {
      "environment_name": "production",
      "name": "satellite6.example.com",
      ...
    }
  ],
  "search": "environment=production",
}

```

Searching for all Hosts with a Specific Fact Value

The following query returns all hosts with a model name "RHEV Hypervisor":

```

$ curl -X GET -s -k -u admin:password
https://satellite6.example.com/api/v2/hosts?search=model=\"RHEV+Hypervisor\"
| python -mjson.tool
{
  ...
  "results": [
    {
      "model_id": 1,
      "model_name": "RHEV Hypervisor",
      "name": "satellite6.example.com",
      ...
    }
  ],
  "search": "model=\"RHEV Hypervisor\"",
}

```

4.3.2. Creating and Modifying Resources

You can use the Satellite API to manipulate resources on the Satellite server. These API calls require that you pass various parameters beyond the simple user name, password, and URI that you want to query. For example, to upload content to your Satellite server, or to modify Satellite resources, you need to include extra information in the header when you construct your request.

You can specify the version of the API either in the header, as described in the following examples, or as part of the URL. For example,

<https://satellite6.example.com/api/v2/architectures> is the equivalent of using

Accept:version=2 in the request header. The URL specification takes precedence.



Important

If you do not specify an API version, version 1 is used, even though it is not supported. If you specify version 1, you might receive an error message or receive incorrect data. Both of these issues have been addressed upstream and will be available in an upcoming release. Red Hat recommends that you always specify version 2 of the API, either in the header or in the URL.

The following is the basic syntax for a POST request:

```
$ curl -H "Accept:application/json,version=2" -H "Content-Type:application/json" -X POST -u username[:password] [-k] -d json-formatted-data satellite-url
```

For example, to create a new architecture, you can use the following example request:

```
$ curl -H "Accept:application/json,version=2" -H "Content-Type:application/json" -X POST -u admin:changeme -k -d '{"architecture":{"name":"i686"}}' https://satellite6.example.com/api/architectures
```

This returns output similar to the following:

```
{"name":"i686","id":3,"created_at":"2015-10-29T13:21:09Z","updated_at":"2015-10-29T13:21:09Z","operatingsystems":[],"images":[]}
```

You can use the following command to verify that the architecture was created:

```
$ curl -X GET -u admin:changeme -k https://satellite6.example.com/api/v2/architectures | python -mjson.tool
{
  "page": 1,
  "per_page": 20,
  "results": [
    {
      "created_at": "2015-04-02T05:29:46Z",
      "id": 2,
      "name": "i386",
      "updated_at": "2015-04-02T05:29:46Z"
    },
    {
      "created_at": "2015-04-02T05:29:46Z",
      "id": 1,
      "name": "x86_64",
      "updated_at": "2015-04-02T05:29:46Z"
    },
    {
      "created_at": "2015-11-04T19:40:15Z",
```

```

        "id": 3,
        "name": "i686",
        "updated_at": "2015-11-04T19:40:15Z"
      }
    ],
    "search": null,
    "sort": {
      "by": null,
      "order": null
    },
    "subtotal": 3,
    "total": 3
  }

```

You can also use **hammer** on the Satellite server to verify the results:

```

# hammer -u admin -p changeme architecture list
---|-----
ID | NAME
---|-----
2  | i386
1  | x86_64
3  | i686
---|-----

```

4.3.2.1. Uploading Content to the Satellite Server

Two methods exist for uploading content to your Satellite server. The first method is more straightforward but due to web server configuration limitations, the maximum file size that you can upload is about 30 MB. If you try to upload larger files, the Satellite server returns an error. Satellite 6 supports uploading very large files, but the process is slightly more complex. This section describes how to use **curl** with the Satellite 6 API to upload and import large files to your Satellite server. This process involves four steps:

1. Create an upload request.
2. Upload the content.
3. Import the content.
4. Delete the upload request.

Creating the Upload Request

The following example command creates an upload request that you can use to upload your content. Ensure you modify the example parameters to suit your deployment:

```

$ curl -H "Accept:application/json,version=2" -H "Content-Type:application/json" -X POST -u admin:changeme -k -d "{}" https://satellite6.example.com/katello/api/repositories/3/content_uploads

```



Note

Even though this command uses a POST method, it does not actually pass any data, as evidenced by the empty data string ("{}"). The command creates an **upload_id**, but no data is passed to the Satellite server to achieve this.

This command returns output similar to the following:

```
{"upload_id":"0be156b1-f373-4cad-89d0-924f8f4491d2","_href":"/pulp/api/v2/content/uploads/0be156b1-f373-4cad-89d0-924f8f4491d2/"}
```

Make a note of the **upload_id** value; you need this value when you upload your content to the Satellite server.

Uploading Your Content

Ensure you use the correct MIME type when you upload data. The "application/json" MIME type is used for the majority of requests to Satellite 6.

The following example illustrates how to combine the **upload_id**, MIME type, and other parameters to upload content:

```
$ curl -H "Accept:application/json,version=2" -H "Content-Type:multipart/form-data" -X PUT -u admin:changeme -k --data-urlencode "content@/home/sat6user/rpmbuild/RPMS/noarch/python-scripttest-1.1.1-1.fc21.noarch.rpm" --data-urlencode offset=0 https://satellite6.example.com/katello/api/repositories/3/content_uploads/0be156b1-f373-4cad-89d0-924f8f4491d2
```

You can make this request multiple times to upload large files. Break the content into smaller pieces (for example, 5 MB, using a tool such as **split**), and increment the offset in bytes.

Importing the Uploaded Content

After you have uploaded the content to the Satellite server, you need to import it into the appropriate repository. Until you complete this step, the Satellite server will not be aware of the new content.

```
$ curl -H "Accept:application/json,version=2" -H "Content-Type:application/json" -X PUT -u admin:changeme -k -d "{\"upload_ids\": [\"0be156b1-f373-4cad-89d0-924f8f4491d2\"]}" https://satellite6.example.com>/katello/api/repositories/3/import_uploads
```

Deleting the Upload Request

After you have successfully uploaded and imported your content, you can delete the upload request. This frees any temporary disk space that was used during the upload.

```
$ curl -H "Accept:application/json,version=2" -H "Content-Type:application/json" -X DELETE -d "{}" -u admin:changeme -k https://satellite6.example.com/katello/api/repositories/3/content_uploads/0be156b1-f373-4cad-89d0-924f8f4491d2
```

4.3.2.1.1. Complete Example of Uploading Content

The following example demonstrates in full how to split a large file into chunks, create an upload request, upload the individual files, import them to Satellite, and then delete the upload request. Note that this example uses sample content, host names, user names, and file names.

1. Download the sample module and split it into 50,000 byte chunks.

```
$ wget https://forgeapi.puppetlabs.com/v3/files/foreman-foreman-5.0.1.tar.gz?_ga=1.267255502.1792403825.1430297670 -O theforeman-foreman-5.0.1.tar.gz

$ split --bytes 50000 --numeric-suffixes --suffix-length=1 theforeman-foreman-5.0.1.tar.gz foreman_module.

$ ls -la theforeman-foreman-5.0.1.tar.gz foreman_module.*
-rw-r--r--. 1 root root 50000 Nov  4 04:42 foreman_module.0
-rw-r--r--. 1 root root 32928 Nov  4 04:42 foreman_module.1
-rw-r--r--. 1 root root 82928 Nov  4 04:41 theforeman-foreman-5.0.1.tar.gz
```

2. Create a new upload request (this is the equivalent of **cat** on the Satellite server).

```
$ curl -H "Accept:application/json,version=2" -H "Content-Type:application/json" -X POST -u admin:changeme -k -d "{}" https://ibm-vm01.example.com/katello/api/repositories/2/content_uploads

It responded with upload id:
{"upload_id":"9585528f-07ad-4bb1-9c80-ccece249b2b7", "_href":"/pulp/api/v2/content/uploads/9585528f-07ad-4bb1-9c80-ccece249b2b7/"}
```

3. Upload the file chunks that you created in Step 1. Notice the use of the **offset** parameter in this example and how it relates to the file size.

```
$ curl -H "Accept:application/json,version=2" -H "Content-Type:multipart/form-data" -X PUT -u admin:changeme -k --data-urlencode "content@foreman_module.0" --data-urlencode offset=0 https://ibm-vm01.example.com/katello/api/repositories/2/content_uploads/9585528f-07ad-4bb1-9c80-ccece249b2b7

$ curl -H "Accept:application/json,version=2" -H "Content-Type:multipart/form-data" -X PUT -u admin:changeme -k --data-urlencode "content@foreman_module.1" --data-urlencode offset=50000 https://ibm-vm01.example.com/katello/api/repositories/2/content_uploads/9585528f-07ad-4bb1-9c80-ccece249b2b7
```

4. Import the complete upload to the repository.

```
$ curl -H "Accept:application/json,version=2" -H "Content-Type:application/json" -X PUT -u admin:changeme -k -d '{"upload_ids":["9585528f-07ad-4bb1-9c80-ccece249b2b7"]}' https://ibm-vm01.example.com/katello/api/repositories/2/import_uploads
```


5. Delete the upload.

```
$ curl -H "Accept:application/json,version=2" -H "Content-Type:application/json" -X DELETE -d "{}" -u admin:changeme -k https://ibm-vm01.example.com/katello/api/repositories/2/content_uploads/9585528f-07ad-4bb1-9c80-ccece249b2b7
```

If you log in to the server you can check that the files match:

```
$ ls -la /var/lib/pulp/content/puppet_module/foreman-foreman-5.0.1.tar.gz
-rw-r--r--. 1 apache apache 82928 Nov  4 04:55
/var/lib/pulp/content/puppet_module/foreman-foreman-5.0.1.tar.gz

$ cmp /var/lib/pulp/content/puppet_module/foreman-foreman-5.0.1.tar.gz
foreman-foreman-5.0.1.tar.gz
$ echo $?
0
```

4.4. Locating and Using Other Search Terms

You can use the web UI to determine other search terms that you can use to construct your queries. Satellite 6 supports scoped search and tab completion to make this task easier.

For example, to search for hosts by their operating system, navigate to **Hosts** → **All Hosts** and click inside the **Search** text box to display a list of search terms. One of the search terms for operating systems is **os_description**, which you can use in your API query as follows:

```
$ curl -s -k -u admin:password https://satellite6.example.com/api/v2/hosts?
search=os_description=\"RHEL+Server+6.6\" | python -mjson.tool
{
  ...
  "results": [
    {
      "name": "satellite6.example.com",
      "operatingsystem_id": 1,
      "operatingsystem_name": "RHEL Server 6.6",
      ...
    }
  ],
  "search": "os_description=\"RHEL Server 6.6\"",
}
```

Appendix A. API Permissions Matrix

The Red Hat Satellite 6 API supports numerous actions, many of which require specific permissions. The following table lists the API permission names, the actions associated with those permissions, and the associated resource type.

Table A.1. API Permissions Matrix

Permission Name	Actions	Resource Type
edit_activation_keys	<ul style="list-style-type: none"> ✦ katello/api/v2/activation_keys/update ✦ katello/api/v2/activation_keys/content_override ✦ katello/api/v2/activation_keys/add_subscriptions ✦ katello/api/v2/activation_keys/remove_subscriptions 	Katello::ActivationKey
destroy_activation_keys	<ul style="list-style-type: none"> ✦ katello/api/v2/activation_keys/destroy 	Katello::ActivationKey
create_activation_keys	<ul style="list-style-type: none"> ✦ katello/api/v2/activation_keys/create ✦ katello/api/v2/activation_keys/copy 	Katello::ActivationKey
view_activation_keys	<ul style="list-style-type: none"> ✦ katello/activation_keys/all ✦ katello/activation_keys/index ✦ katello/activation_keys/auto_complete_search ✦ katello/api/v2/activation_keys/index ✦ katello/api/v2/activation_keys/show ✦ katello/api/v2/activation_keys/available_host_collections ✦ katello/api/v2/activation_keys/available_releases ✦ katello/api/v2/activation_keys/product_content 	Katello::ActivationKey
logout	<ul style="list-style-type: none"> ✦ users/logout 	
edit_architectures	<ul style="list-style-type: none"> ✦ architectures/edit ✦ architectures/update ✦ api/v1/architectures/update ✦ api/v2/architectures/update 	
create_architectures	<ul style="list-style-type: none"> ✦ architectures/new ✦ architectures/create ✦ api/v1/architectures/create ✦ api/v2/architectures/create 	

Permission Name	Actions	Resource Type
destroy_architectures	<ul style="list-style-type: none"> ✦ architectures/destroy ✦ api/v1/architectures/destroy ✦ api/v2/architectures/destroy 	
view_architectures	<ul style="list-style-type: none"> ✦ architectures/index ✦ architectures/show ✦ architectures/auto_complete_search ✦ api/v1/architectures/index ✦ api/v1/architectures/show ✦ api/v2/architectures/index ✦ api/v2/architectures/show 	
view_audit_logs	<ul style="list-style-type: none"> ✦ audits/index ✦ audits/show ✦ audits/auto_complete_search ✦ api/v1/audits/index ✦ api/v1/audits/show ✦ api/v2/audits/index ✦ api/v2/audits/show 	
edit_authenticators	<ul style="list-style-type: none"> ✦ auth_source_ldaps/edit ✦ auth_source_ldaps/update ✦ api/v1/auth_source_ldaps/update ✦ api/v2/auth_source_ldaps/update 	
create_authenticators	<ul style="list-style-type: none"> ✦ auth_source_ldaps/new ✦ auth_source_ldaps/create ✦ api/v1/auth_source_ldaps/create ✦ api/v2/auth_source_ldaps/create 	
view_authenticators	<ul style="list-style-type: none"> ✦ auth_source_ldaps/index ✦ auth_source_ldaps/show ✦ api/v1/auth_source_ldaps/index ✦ api/v1/auth_source_ldaps/show ✦ api/v2/auth_source_ldaps/index ✦ api/v2/auth_source_ldaps/show 	
destroy_authenticators	<ul style="list-style-type: none"> ✦ auth_source_ldaps/destroy ✦ api/v1/auth_source_ldaps/destroy ✦ api/v2/auth_source_ldaps/destroy 	
destroy_bookmarks	<ul style="list-style-type: none"> ✦ bookmarks/destroy ✦ api/v1/bookmarks/destroy ✦ api/v2/bookmarks/destroy 	

Permission Name	Actions	Resource Type
edit_bookmarks	<ul style="list-style-type: none"> ✖ bookmarks/edit ✖ bookmarks/update ✖ api/v1/bookmarks/edit ✖ api/v1/bookmarks/update ✖ api/v2/bookmarks/edit ✖ api/v2/bookmarks/update 	
view_bookmarks	<ul style="list-style-type: none"> ✖ bookmarks/index ✖ bookmarks/show ✖ api/v1/bookmarks/index ✖ api/v1/bookmarks/show ✖ api/v2/bookmarks/index ✖ api/v2/bookmarks/show 	
create_bookmarks	<ul style="list-style-type: none"> ✖ bookmarks/new ✖ bookmarks/create ✖ api/v1/bookmarks/new ✖ api/v1/bookmarks/create ✖ api/v2/bookmarks/new ✖ api/v2/bookmarks/create 	
download_bootdisk	<ul style="list-style-type: none"> ✖ foreman_bootdisk/disks/generic ✖ foreman_bootdisk/disks/host ✖ foreman_bootdisk/disks/full_host ✖ foreman_bootdisk/disks/help ✖ foreman_bootdisk/api/v2/disks/generic ✖ foreman_bootdisk/api/v2/disks/host 	
manage_capsule_content	<ul style="list-style-type: none"> ✖ katello/api/v2/capsule_content/lifecycle_environments ✖ katello/api/v2/capsule_content/available_lifecycle_environments ✖ katello/api/v2/capsule_content/add_lifecycle_environment ✖ katello/api/v2/capsule_content/remove_lifecycle_environment ✖ katello/api/v2/capsule_content/sync 	SmartProxy
edit_compute_profiles	<ul style="list-style-type: none"> ✖ compute_profiles/edit ✖ compute_profiles/update ✖ api/v2/compute_profiles/update 	
destroy_compute_profiles	<ul style="list-style-type: none"> ✖ compute_profiles/destroy ✖ api/v2/compute_profiles/destroy 	

Permission Name	Actions	Resource Type
view_compute_profiles	<ul style="list-style-type: none"> compute_profiles/index compute_profiles/show compute_profiles/auto_complete_search api/v2/compute_profiles/index api/v2/compute_profiles/show 	
create_compute_profiles	<ul style="list-style-type: none"> compute_profiles/new compute_profiles/create api/v2/compute_profiles/create 	
create_compute_resources	<ul style="list-style-type: none"> compute_resources/new compute_resources/create compute_resources/test_connection api/v1/compute_resources/create api/v2/compute_resources/create 	
destroy_compute_resources	<ul style="list-style-type: none"> compute_resources/destroy api/v1/compute_resources/destroy api/v2/compute_resources/destroy 	
view_compute_resources	<ul style="list-style-type: none"> compute_resources/index compute_resources/show compute_resources/auto_complete_search compute_resources/ping compute_resources/available_images api/v1/compute_resources/index api/v1/compute_resources/show api/v2/compute_resources/index api/v2/compute_resources/show api/v2/compute_resources/available_images api/v2/compute_resources/available_clusters api/v2/compute_resources/available_folders api/v2/compute_resources/available_networks api/v2/compute_resources/available_resource_pools api/v2/compute_resources/available_storage_domains 	

Permission Name	Actions	Resource Type
edit_compute_resources	<ul style="list-style-type: none"> ✦ compute_resources/edit ✦ compute_resources/update ✦ compute_resources/test_connection ✦ compute_attributes/new ✦ compute_attributes/create ✦ compute_attributes/edit ✦ compute_attributes/update ✦ api/v1/compute_resources/update ✦ api/v2/compute_resources/update ✦ api/v2/compute_attributes/create ✦ api/v2/compute_attributes/update 	
console_compute_resources_vms	<ul style="list-style-type: none"> ✦ compute_resources_vms/console 	
destroy_compute_resources_vms	<ul style="list-style-type: none"> ✦ compute_resources_vms/destroy 	
create_compute_resources_vms	<ul style="list-style-type: none"> ✦ compute_resources_vms/new ✦ compute_resources_vms/create 	
view_compute_resources_vms	<ul style="list-style-type: none"> ✦ compute_resources_vms/index ✦ compute_resources_vms/show 	
power_compute_resources_vms	<ul style="list-style-type: none"> ✦ compute_resources_vms/power ✦ compute_resources_vms/pause 	
edit_compute_resources_vms	<ul style="list-style-type: none"> ✦ compute_resources_vms/edit ✦ compute_resources_vms/update 	
create_config_groups	<ul style="list-style-type: none"> ✦ config_groups/new ✦ config_groups/create ✦ api/v2/config_groups/create 	
destroy_config_groups	<ul style="list-style-type: none"> ✦ config_groups/destroy ✦ api/v2/config_groups/destroy 	
edit_config_groups	<ul style="list-style-type: none"> ✦ config_groups/edit ✦ config_groups/update ✦ api/v2/config_groups/update 	
view_config_groups	<ul style="list-style-type: none"> ✦ config_groups/index ✦ config_groups/auto_complete_search ✦ api/v2/config_groups/index ✦ api/v2/config_groups/show 	

Permission Name	Actions	Resource Type
deploy_templates	<ul style="list-style-type: none"> ✦ config_templates/build_pxe_default ✦ api/v1/config_templates/build_pxe_default ✦ api/v2/config_templates/build_pxe_default 	
lock_templates	<ul style="list-style-type: none"> ✦ config_templates/lock ✦ config_templates/unlock ✦ api/v2/config_templates/lock ✦ api/v2/config_templates/unlock 	
edit_templates	<ul style="list-style-type: none"> ✦ config_templates/edit ✦ config_templates/update ✦ api/v1/config_templates/update ✦ api/v2/config_templates/update ✦ api/v2/template_combinations/update 	
view_templates	<ul style="list-style-type: none"> ✦ config_templates/index ✦ config_templates/show ✦ config_templates/revision ✦ config_templates/auto_complete_search ✦ api/v1/config_templates/index ✦ api/v1/config_templates/show ✦ api/v1/config_templates/revision ✦ api/v2/config_templates/index ✦ api/v2/config_templates/show ✦ api/v2/config_templates/revision ✦ api/v2/template_combinations/index ✦ api/v2/template_combinations/show ✦ api/v1/template_kinds/index ✦ api/v2/template_kinds/index 	
destroy_templates	<ul style="list-style-type: none"> ✦ config_templates/destroy ✦ api/v1/config_templates/destroy ✦ api/v2/config_templates/destroy ✦ api/v2/template_combinations/destroy 	
create_templates	<ul style="list-style-type: none"> ✦ config_templates/new ✦ config_templates/create ✦ config_templates/clone ✦ api/v1/config_templates/create ✦ api/v2/config_templates/create ✦ api/v2/template_combinations/create 	
commit_containers	<ul style="list-style-type: none"> ✦ containers/commit 	Container
destroy_containers	<ul style="list-style-type: none"> ✦ containers/destroy ✦ api/v2/containers/destroy 	Container

Permission Name	Actions	Resource Type
power_compute_resources_vms	<ul style="list-style-type: none"> ✶ containers/power ✶ api/v2/containers/create ✶ api/v2/containers/power 	ComputeResource
view_containers	<ul style="list-style-type: none"> ✶ containers/index ✶ containers/show ✶ api/v2/containers/index ✶ api/v2/containers/show ✶ api/v2/containers/logs 	Container
create_containers	<ul style="list-style-type: none"> ✶ containers/steps/show ✶ containers/steps/update ✶ containers/new ✶ api/v2/containers/create ✶ api/v2/containers/power 	Container
destroy_content_hosts	<ul style="list-style-type: none"> ✶ katello/api/v2/systems/destroy ✶ katello/api/v2/systems_bulk_actions/destroy_systems 	Katello::System
view_content_hosts	<ul style="list-style-type: none"> ✶ katello/content_hosts/auto_complete_search ✶ katello/api/v2/systems/index ✶ katello/api/v2/systems/show ✶ katello/api/v2/systems/errata ✶ katello/api/v2/systems/package_profile ✶ katello/api/v2/systems/report ✶ katello/api/v2/systems/pools ✶ katello/api/v2/systems/releases ✶ katello/api/v2/systems/available_host_collections ✶ katello/api/v2/systems/events ✶ katello/api/v2/system_errata/show ✶ katello/api/v2/systems_bulk_actions/applicable_errata ✶ katello/api/v2/host_collections/systems ✶ katello/dashboard/errata 	Katello::System

Permission Name	Actions	Resource Type
edit_content_hosts	<ul style="list-style-type: none"> ✦ katello/api/v2/systems/update ✦ katello/api/v2/systems/refresh_subscriptions ✦ katello/api/v2/system_packages/install ✦ katello/api/v2/system_packages/upgrade ✦ katello/api/v2/system_packages/upgrade_all ✦ katello/api/v2/system_packages/remove ✦ katello/api/v2/system_errata/apply ✦ katello/api/v2/systems_bulk_actions/install_content ✦ katello/api/v2/systems_bulk_actions/update_content ✦ katello/api/v2/systems_bulk_actions/remove_content ✦ katello/api/v2/systems_bulk_actions/environment_content_view ✦ katello/api/v2/systems_bulk_actions/bulk_add_host_collections ✦ katello/api/v2/systems_bulk_actions/bulk_remove_host_collections ✦ katello/api/rhsm/candlepin_proxies/upload_package_profile ✦ katello/api/rhsm/candlepin_proxies/regenerate_identity_certificates ✦ katello/api/rhsm/candlepin_proxies/hypervisors_update 	Katello::System
create_content_hosts	<ul style="list-style-type: none"> ✦ katello/api/v2/systems/create ✦ katello/api/rhsm/candlepin_proxies/consumer_create ✦ katello/api/rhsm/candlepin_proxies/consumer_show 	Katello::System
publish_content_views	<ul style="list-style-type: none"> ✦ katello/api/v2/content_views/publish ✦ katello/api/v2/content_view_versions/incremental_update 	Katello::ContentView
promote_or_remove_content_views	<ul style="list-style-type: none"> ✦ katello/api/v2/content_view_versions/promote ✦ katello/api/v2/content_views/remove_from_environment ✦ katello/api/v2/content_views/remove 	Katello::ContentView
destroy_content_views	<ul style="list-style-type: none"> ✦ katello/api/v2/content_views/destroy ✦ katello/api/v2/content_views/remove ✦ katello/api/v2/content_view_versions/destroy 	Katello::ContentView
view_content_views	<ul style="list-style-type: none"> ✦ katello/api/v2/content_views/index 	Katello::ContentView

Permission Name	Actions	Resource Type
	<ul style="list-style-type: none"> ✱ katello/api/v2/content_views/show ✱ katello/api/v2/content_views/history ✱ katello/api/v2/content_views/available_puppet_modules ✱ katello/api/v2/content_views/available_puppet_module_names ✱ katello/api/v2/content_view_filters/index ✱ katello/api/v2/content_view_filters/show ✱ katello/api/v2/content_view_filters/available_errata ✱ katello/api/v2/content_view_filters/available_package_groups ✱ katello/api/v2/content_view_filter_rules/index ✱ katello/api/v2/content_view_filter_rules/show ✱ katello/api/v2/content_view_puppet_modules/index ✱ katello/api/v2/content_view_puppet_modules/show ✱ katello/api/v2/content_view_versions/index ✱ katello/api/v2/content_view_versions/show ✱ katello/api/v2/package_groups/index ✱ katello/api/v2/package_groups/show ✱ katello/api/v2/errata/index ✱ katello/api/v2/errata/show ✱ katello/api/v2/puppet_modules/index ✱ katello/api/v2/puppet_modules/show ✱ katello/content_views/auto_complete ✱ katello/content_views/auto_complete_search ✱ katello/errata/short_details ✱ katello/errata/auto_complete ✱ katello/packages/details ✱ katello/packages/auto_complete ✱ katello/products/auto_complete ✱ katello/repositories/auto_complete_library ✱ katello/content_search/index ✱ katello/content_search/products ✱ katello/content_search/repos ✱ katello/content_search/packages ✱ katello/content_search/errata ✱ katello/content_search/puppet_modules ✱ katello/content_search/packages_items ✱ katello/content_search/errata_items ✱ katello/content_search/puppet_modules_items ✱ katello/content_search/view_packages ✱ katello/content_search/view_puppet_modules ✱ katello/content_search/repo_packages ✱ katello/content_search/repo_errata ✱ katello/content_search/repo_puppet_modules ✱ katello/content_search/repo_compare_errata 	

Permission Name	Actions	Resource Type
	<ul style="list-style-type: none"> ✖ katello/content_search/repo_compare_packages ✖ katello/content_search/repo_compare_puppet_modules ✖ katello/content_search/view_compare_errata ✖ katello/content_search/view_compare_packages ✖ katello/content_search/view_compare_puppet_modules ✖ katello/content_search/views ✖ katello/dashboard/content_views 	
create_content_views	<ul style="list-style-type: none"> ✖ katello/dashboard/promotions ✖ katello/api/v2/content_views/create ✖ katello/api/v2/content_views/copy 	Katello::ContentView
edit_content_views	<ul style="list-style-type: none"> ✖ katello/api/v2/content_views/update ✖ katello/api/v2/content_view_filters/create ✖ katello/api/v2/content_view_filters/update ✖ katello/api/v2/content_view_filters/destroy ✖ katello/api/v2/content_view_filter_rules/create ✖ katello/api/v2/content_view_filter_rules/update ✖ katello/api/v2/content_view_filter_rules/destroy ✖ katello/api/v2/content_view_puppet_modules/create ✖ katello/api/v2/content_view_puppet_modules/update ✖ katello/api/v2/content_view_puppet_modules/destroy 	Katello::ContentView
access_dashboard	<ul style="list-style-type: none"> ✖ dashboard/index ✖ api/v1/dashboard/index ✖ api/v2/dashboard/index ✖ ["katello/dashboard/index", "katello/dashboard/notices"] 	
destroy_discovered_hosts	<ul style="list-style-type: none"> ✖ discovered_hosts/destroy ✖ discovered_hosts/submit_multiple_destroy ✖ discovered_hosts/multiple_destroy ✖ api/v2/discovered_hosts/destroy 	Host
submit_discovered_hosts	<ul style="list-style-type: none"> ✖ api/v2/discovered_hosts/facts ✖ api/v2/discovered_hosts/create 	Host

Permission Name	Actions	Resource Type
view_discovered_hosts	<ul style="list-style-type: none"> ✎ discovered_hosts/index ✎ discovered_hosts/show ✎ discovered_hosts/auto_complete_search ✎ api/v2/discovered_hosts/index ✎ api/v2/discovered_hosts/show 	Host
edit_discovered_hosts	<ul style="list-style-type: none"> ✎ discovered_hosts/update_multiple_location ✎ discovered_hosts/select_multiple_organization ✎ discovered_hosts/update_multiple_organization ✎ discovered_hosts/select_multiple_location ✎ discovered_hosts/refresh_facts ✎ discovered_hosts/reboot ✎ api/v2/discovered_hosts/refresh_facts ✎ api/v2/discovered_hosts/reboot 	Host
provision_discovered_hosts	<ul style="list-style-type: none"> ✎ discovered_hosts/edit ✎ discovered_hosts/update ✎ api/v2/discovered_hosts/update 	Host
auto_provision_discovered_hosts	<ul style="list-style-type: none"> ✎ discovered_hosts/auto_provision ✎ discovered_hosts/auto_provision_all ✎ api/v2/discovered_hosts/auto_provision ✎ api/v2/discovered_hosts/auto_provision_all 	Host
view_discovery_rules	<ul style="list-style-type: none"> ✎ discovery_rules/index ✎ discovery_rules/show ✎ discovery_rules/auto_complete_search ✎ api/v2/discovery_rules/index ✎ api/v2/discovery_rules/show 	DiscoveryRule
destroy_discovery_rules	<ul style="list-style-type: none"> ✎ discovery_rules/destroy ✎ api/v2/discovery_rules/destroy 	DiscoveryRule
execute_discovery_rules	<ul style="list-style-type: none"> ✎ discovery_rules/auto_provision ✎ discovery_rules/auto_provision_all ✎ api/v2/discovery_rules/auto_provision ✎ api/v2/discovery_rules/auto_provision_all 	DiscoveryRule
create_discovery_rules	<ul style="list-style-type: none"> ✎ discovery_rules/new ✎ discovery_rules/create ✎ api/v2/discovery_rules/create 	DiscoveryRule

Permission Name	Actions	Resource Type
edit_discovery_rules	<ul style="list-style-type: none"> ✦ discovery_rules/edit ✦ discovery_rules/update ✦ discovery_rules/enable ✦ discovery_rules/disable ✦ api/v2/discovery_rules/create ✦ api/v2/discovery_rules/update 	DiscoveryRule
view_domains	<ul style="list-style-type: none"> ✦ domains/index ✦ domains/show ✦ domains/auto_complete_search ✦ api/v1/domains/index ✦ api/v1/domains/show ✦ api/v2/domains/index ✦ api/v2/domains/show ✦ api/v2/parameters/index ✦ api/v2/parameters/show 	
create_domains	<ul style="list-style-type: none"> ✦ domains/new ✦ domains/create ✦ api/v1/domains/create ✦ api/v2/domains/create 	
edit_domains	<ul style="list-style-type: none"> ✦ domains/edit ✦ domains/update ✦ api/v1/domains/update ✦ api/v2/domains/update ✦ api/v2/parameters/create ✦ api/v2/parameters/update ✦ api/v2/parameters/destroy ✦ api/v2/parameters/reset 	
destroy_domains	<ul style="list-style-type: none"> ✦ domains/destroy ✦ api/v1/domains/destroy ✦ api/v2/domains/destroy 	
destroy_environments	<ul style="list-style-type: none"> ✦ environments/destroy ✦ api/v1/environments/destroy ✦ api/v2/environments/destroy 	
edit_environments	<ul style="list-style-type: none"> ✦ environments/edit ✦ environments/update ✦ api/v1/environments/update ✦ api/v2/environments/update 	

Permission Name	Actions	Resource Type
view_environments	<ul style="list-style-type: none"> ✳ environments/index ✳ environments/show ✳ environments/auto_complete_search ✳ api/v1/environments/index ✳ api/v1/environments/show ✳ api/v2/environments/index ✳ api/v2/environments/show 	
create_environments	<ul style="list-style-type: none"> ✳ environments/new ✳ environments/create ✳ api/v1/environments/create ✳ api/v2/environments/create 	
import_environments	<ul style="list-style-type: none"> ✳ environments/import_environments ✳ environments/obsolete_and_new ✳ api/v1/environments/import_puppetclasses ✳ api/v2/environments/import_puppetclasses ✳ api/v1/smart_proxies/import_puppetclasses ✳ api/v2/smart_proxies/import_puppetclasses 	
edit_external_usergroups	<ul style="list-style-type: none"> ✳ external_usergroups/edit ✳ external_usergroups/update ✳ external_usergroups/refresh ✳ api/v2/external_usergroups/update ✳ api/v2/external_usergroups/refresh 	
destroy_external_usergroups	<ul style="list-style-type: none"> ✳ external_usergroups/destroy ✳ api/v2/external_usergroups/destroy 	
create_external_usergroups	<ul style="list-style-type: none"> ✳ external_usergroups/new ✳ external_usergroups/create ✳ api/v2/external_usergroups/new ✳ api/v2/external_usergroups/create 	
view_external_usergroups	<ul style="list-style-type: none"> ✳ external_usergroups/index ✳ external_usergroups/show ✳ api/v2/external_usergroups/index ✳ api/v2/external_usergroups/show 	

Permission Name	Actions	Resource Type
edit_external_variables	<ul style="list-style-type: none"> lookup_keys/edit lookup_keys/update lookup_values/create lookup_values/update lookup_values/destroy api/v1/lookup_keys/update api/v2/smart_variables/update api/v2/smart_class_parameters/update api/v2/override_values/create api/v2/override_values/update api/v2/override_values/destroy 	
destroy_external_variables	<ul style="list-style-type: none"> lookup_keys/destroy lookup_values/destroy api/v1/lookup_keys/destroy api/v2/smart_variables/destroy api/v2/smart_class_parameters/destroy api/v2/override_values/create api/v2/override_values/update api/v2/override_values/destroy 	
create_external_variables	<ul style="list-style-type: none"> lookup_keys/new lookup_keys/create lookup_values/create api/v1/lookup_keys/create api/v2/smart_variables/create api/v2/smart_class_parameters/create api/v2/override_values/create 	
view_external_variables	<ul style="list-style-type: none"> lookup_keys/index lookup_keys/show lookup_keys/auto_complete_search lookup_values/index api/v1/lookup_keys/index api/v1/lookup_keys/show api/v2/smart_variables/index api/v2/smart_variables/show api/v2/smart_class_parameters/index api/v2/smart_class_parameters/show api/v2/override_values/index api/v2/override_values/show 	

Permission Name	Actions	Resource Type
view_facts	<ul style="list-style-type: none"> ✱ facts/index ✱ facts/show ✱ fact_values/index ✱ fact_values/show ✱ fact_values/auto_complete_search ✱ api/v1/fact_values/index ✱ api/v1/fact_values/show ✱ api/v2/fact_values/index ✱ api/v2/fact_values/show 	
upload_facts	<ul style="list-style-type: none"> ✱ api/v2/hosts/facts 	
view_filters	<ul style="list-style-type: none"> ✱ filters/index ✱ filters/auto_complete_search ✱ api/v2/filters/index ✱ api/v2/filters/show 	
destroy_filters	<ul style="list-style-type: none"> ✱ filters/destroy ✱ api/v2/filters/destroy 	
create_filters	<ul style="list-style-type: none"> ✱ filters/new ✱ filters/create ✱ api/v2/filters/create 	
edit_filters	<ul style="list-style-type: none"> ✱ filters/edit ✱ filters/update ✱ permissions/index ✱ api/v2/filters/update ✱ api/v2/permissions/index ✱ api/v2/permissions/show ✱ api/v2/permissions/resource_types 	
edit_foreman_tasks	<ul style="list-style-type: none"> ✱ foreman_tasks/tasks/resume ✱ foreman_tasks/tasks/unlock ✱ foreman_tasks/tasks/force_unlock ✱ foreman_tasks/tasks/cancel_step ✱ foreman_tasks/api/tasks/bulk_resume 	ForemanTasks::Task
view_foreman_tasks	<ul style="list-style-type: none"> ✱ foreman_tasks/tasks/auto_complete_search ✱ foreman_tasks/tasks/sub_tasks ✱ foreman_tasks/tasks/index ✱ foreman_tasks/tasks/show ✱ foreman_tasks/api/tasks/bulk_search ✱ foreman_tasks/api/tasks/show ✱ foreman_tasks/api/tasks/index ✱ foreman_tasks/api/tasks/summary 	ForemanTasks::Task

Permission Name	Actions	Resource Type
destroy_globals	<ul style="list-style-type: none"> ✦ common_parameters/destroy ✦ api/v1/common_parameters/destroy ✦ api/v2/common_parameters/destroy 	
edit_globals	<ul style="list-style-type: none"> ✦ common_parameters/edit ✦ common_parameters/update ✦ api/v1/common_parameters/update ✦ api/v2/common_parameters/update 	
view_globals	<ul style="list-style-type: none"> ✦ common_parameters/index ✦ common_parameters/show ✦ common_parameters/auto_complete_search ✦ api/v1/common_parameters/index ✦ api/v1/common_parameters/show ✦ api/v2/common_parameters/index ✦ api/v2/common_parameters/show 	
create_globals	<ul style="list-style-type: none"> ✦ common_parameters/new ✦ common_parameters/create ✦ api/v1/common_parameters/create ✦ api/v2/common_parameters/create 	
edit_gpg_keys	<ul style="list-style-type: none"> ✦ katello/api/v2/gpg_keys/update ✦ katello/api/v2/gpg_keys/content 	Katello::GpgKey
view_gpg_keys	<ul style="list-style-type: none"> ✦ katello/gpg_keys/all ✦ katello/gpg_keys/index ✦ katello/gpg_keys/auto_complete_search ✦ katello/api/v2/gpg_keys/index ✦ katello/api/v2/gpg_keys/show 	Katello::GpgKey
destroy_gpg_keys	<ul style="list-style-type: none"> ✦ katello/api/v2/gpg_keys/destroy 	Katello::GpgKey
create_gpg_keys	<ul style="list-style-type: none"> ✦ katello/api/v2/gpg_keys/create 	Katello::GpgKey
destroy_host_collections	<ul style="list-style-type: none"> ✦ katello/api/v2/host_collections/destroy 	Katello::HostCollection
view_host_collections	<ul style="list-style-type: none"> ✦ katello/api/v2/host_collections/index ✦ katello/api/v2/host_collections/show ✦ katello/dashboard/host_collections ✦ katello/host_collections/auto_complete_search 	Katello::HostCollection

Permission Name	Actions	Resource Type
edit_host_collections	<ul style="list-style-type: none"> ✦ katello/api/v2/host_collections/update ✦ katello/api/v2/host_collections/add_systems ✦ katello/api/v2/host_collections/remove_systems 	Katello::HostCollection
create_host_collections	<ul style="list-style-type: none"> ✦ katello/api/v2/host_collections/create ✦ katello/api/v2/host_collections/copy 	Katello::HostCollection
edit_classes	<ul style="list-style-type: none"> ✦ host_editing/edit_classes ✦ api/v2/host_classes/index ✦ api/v2/host_classes/create ✦ api/v2/host_classes/destroy 	
edit_params	<ul style="list-style-type: none"> ✦ host_editing/edit_params ✦ api/v2/parameters/update 	
destroy_params	<ul style="list-style-type: none"> ✦ host_editing/destroy_params ✦ api/v2/parameters/destroy ✦ api/v2/parameters/reset 	
create_params	<ul style="list-style-type: none"> ✦ host_editing/create_params ✦ api/v2/parameters/create 	
destroy_hostgroups	<ul style="list-style-type: none"> ✦ hostgroups/destroy ✦ api/v1/hostgroups/destroy ✦ api/v2/hostgroups/destroy 	
create_hostgroups	<ul style="list-style-type: none"> ✦ hostgroups/new ✦ hostgroups/create ✦ hostgroups/clone ✦ hostgroups/nest ✦ hostgroups/process_hostgroup ✦ hostgroups/architecture_selected ✦ hostgroups/domain_selected ✦ hostgroups/environment_selected ✦ hostgroups/medium_selected ✦ hostgroups/os_selected ✦ hostgroups/use_image_selected ✦ hostgroups/process_hostgroup ✦ hostgroups/current_parameters ✦ hostgroups/puppetclass_parameters ✦ host/process_hostgroup ✦ puppetclasses/parameters ✦ api/v1/hostgroups/create ✦ api/v1/hostgroups/clone ✦ api/v2/hostgroups/create ✦ api/v2/hostgroups/clone 	

Permission Name	Actions	Resource Type
view_hostgroups	<ul style="list-style-type: none"> ✦ hostgroups/index ✦ hostgroups/show ✦ hostgroups/auto_complete_search ✦ api/v1/hostgroups/index ✦ api/v1/hostgroups/show ✦ api/v2/hostgroups/index ✦ api/v2/hostgroups/show 	
edit_hostgroups	<ul style="list-style-type: none"> ✦ hostgroups/edit ✦ hostgroups/update ✦ hostgroups/architecture_selected ✦ hostgroups/process_hostgroup ✦ hostgroups/architecture_selected ✦ hostgroups/domain_selected ✦ hostgroups/environment_selected ✦ hostgroups/medium_selected ✦ hostgroups/os_selected ✦ hostgroups/use_image_selected ✦ hostgroups/process_hostgroup ✦ hostgroups/current_parameters ✦ hostgroups/puppetclass_parameters ✦ host/process_hostgroup ✦ puppetclasses/parameters ✦ api/v1/hostgroups/update ✦ api/v2/hostgroups/update ✦ api/v2/parameters/create ✦ api/v2/parameters/update ✦ api/v2/parameters/destroy ✦ api/v2/parameters/reset ✦ api/v2/hostgroup_classes/index ✦ api/v2/hostgroup_classes/create ✦ api/v2/hostgroup_classes/destroy 	

Permission Name	Actions	Resource Type
view_hosts	<ul style="list-style-type: none"> ✦ hosts/index ✦ hosts/show ✦ hosts/errors ✦ hosts/active ✦ hosts/out_of_sync ✦ hosts/disabled ✦ hosts/pending ✦ hosts/vm ✦ hosts/externalNodes ✦ hosts/pxe_config ✦ hosts/storeconfig_klasses ✦ hosts/auto_complete_search ✦ hosts/bmc ✦ hosts/runtime ✦ hosts/resources ✦ hosts/templates ✦ hosts/overview ✦ dashboard/OutOfSync ✦ dashboard/errors ✦ dashboard/active ✦ unattended/template ✦ unattended/provision ✦ api/v1/hosts/index ✦ api/v1/hosts/show ✦ api/v1/hosts/status ✦ api/v2/hosts/index ✦ api/v2/hosts/show ✦ api/v2/hosts/status ✦ api/v2/interfaces/index ✦ api/v2/interfaces/show ✦ locations/mismatches ✦ organizations/mismatches 	
console_hosts	<ul style="list-style-type: none"> ✦ hosts/console 	
destroy_hosts	<ul style="list-style-type: none"> ✦ hosts/destroy ✦ hosts/multiple_actions ✦ hosts/reset_multiple ✦ hosts/multiple_destroy ✦ hosts/submit_multiple_destroy ✦ api/v1/hosts/destroy ✦ api/v2/hosts/destroy ✦ api/v2/interfaces/destroy 	

Permission Name	Actions	Resource Type
edit_hosts	<ul style="list-style-type: none"> ✦ hosts/edit ✦ hosts/update ✦ hosts/multiple_actions ✦ hosts/reset_multiple ✦ hosts/submit_multiple_enable ✦ hosts/select_multiple_hostgroup ✦ hosts/select_multiple_environment ✦ hosts/submit_multiple_disable ✦ hosts/multiple_parameters ✦ hosts/multiple_disable ✦ hosts/multiple_enable ✦ hosts/update_multiple_environment ✦ hosts/update_multiple_hostgroup ✦ hosts/update_multiple_parameters ✦ hosts/toggle_manage ✦ hosts/select_multiple_organization ✦ hosts/update_multiple_organization ✦ hosts/disassociate ✦ hosts/multiple_disassociate ✦ hosts/update_multiple_disassociate ✦ hosts/select_multiple_location ✦ hosts/update_multiple_location ✦ hosts/architecture_selected ✦ hosts/compute_resource_selected ✦ hosts/domain_selected ✦ hosts/environment_selected ✦ hosts/hostgroup_or_environment_selected ✦ hosts/medium_selected ✦ hosts/os_selected ✦ hosts/use_image_selected ✦ hosts/process_hostgroup ✦ hosts/process_taxonomy ✦ hosts/current_parameters ✦ hosts/puppetclass_parameters ✦ hosts/template_used ✦ compute_resources/associate ✦ compute_resources/[:cluster_selected, :template_selected, :provider_selected] ✦ compute_resources_vms/associate ✦ puppetclasses/parameters ✦ subnets/freeip ✦ interfaces/new ✦ api/v1/hosts/update ✦ api/v2/hosts/update ✦ api/v2/hosts/disassociate ✦ api/v2/interfaces/create ✦ api/v2/interfaces/update ✦ api/v2/interfaces/destroy ✦ api/v2/compute_resources/associate 	

Permission Name	Actions	Resource Type
create_hosts	<ul style="list-style-type: none"> ✦ hosts/new ✦ hosts/create ✦ hosts/clone ✦ hosts/architecture_selected ✦ hosts/compute_resource_selected ✦ hosts/domain_selected ✦ hosts/environment_selected ✦ hosts/hostgroup_or_environment_selected ✦ hosts/medium_selected ✦ hosts/os_selected ✦ hosts/use_image_selected ✦ hosts/process_hostgroup ✦ hosts/process_taxonomy ✦ hosts/current_parameters ✦ hosts/puppetclass_parameters ✦ hosts/template_used ✦ compute_resources/cluster_selected ✦ compute_resources/template_selected ✦ compute_resources/provider_selected ✦ puppetclasses/parameters ✦ subnets/freeip ✦ interfaces/new ✦ api/v1/hosts/create ✦ api/v2/hosts/create ✦ api/v2/interfaces/create ✦ api/v2/tasks/index 	
power_hosts	<ul style="list-style-type: none"> ✦ hosts/power ✦ api/v2/hosts/power 	
puppetrun_hosts	<ul style="list-style-type: none"> ✦ hosts/puppetrun ✦ hosts/multiple_puppetrun ✦ hosts/update_multiple_puppetrun ✦ api/v2/hosts/puppetrun 	
ipmi_boot	<ul style="list-style-type: none"> ✦ hosts/ipmi_boot ✦ api/v2/hosts/boot 	
build_hosts	<ul style="list-style-type: none"> ✦ hosts/setBuild ✦ hosts/cancelBuild ✦ hosts/multiple_build ✦ hosts/submit_multiple_build ✦ hosts/review_before_build ✦ tasks/show ✦ api/v2/tasks/index 	

Permission Name	Actions	Resource Type
search_repository_image_search	<ul style="list-style-type: none"> ✦ image_search/auto_complete_repository_name ✦ image_search/auto_complete_image_tag ✦ image_search/search_repository 	Docker/ImageSearch
edit_images	<ul style="list-style-type: none"> ✦ images/edit ✦ images/update ✦ api/v1/images/update ✦ api/v2/images/update 	
create_images	<ul style="list-style-type: none"> ✦ images/new ✦ images/create ✦ api/v1/images/create ✦ api/v2/images/create 	
destroy_images	<ul style="list-style-type: none"> ✦ images/destroy ✦ api/v1/images/destroy ✦ api/v2/images/destroy 	
view_images	<ul style="list-style-type: none"> ✦ images/index ✦ images/show ✦ images/auto_complete_search ✦ api/v1/images/index ✦ api/v1/images/show ✦ api/v2/images/index ✦ api/v2/images/show 	
promote_or_remove_content_views_to_environments		Katello::KTEEnvironment
edit_lifecycle_environments	<ul style="list-style-type: none"> ✦ katello/api/v2/environments/update 	Katello::KTEEnvironment
create_lifecycle_environments	<ul style="list-style-type: none"> ✦ katello/api/v2/environments/create 	Katello::KTEEnvironment
destroy_lifecycle_environments	<ul style="list-style-type: none"> ✦ katello/api/v2/environments/destroy 	Katello::KTEEnvironment
view_lifecycle_environments	<ul style="list-style-type: none"> ✦ katello/api/v2/environments/index ✦ katello/api/v2/environments/show ✦ katello/api/v2/environments/paths ✦ katello/api/v2/environments/repositories ✦ katello/api/rhsm/candlepin_proxies/rhsm_index ✦ katello/environments/auto_complete_search 	Katello::KTEEnvironment

Permission Name	Actions	Resource Type
assign_locations	<ul style="list-style-type: none"> ✦ locations/assign_all_hosts ✦ locations/assign_hosts ✦ locations/assign_selected_hosts 	
edit_locations	<ul style="list-style-type: none"> ✦ locations/edit ✦ locations/update ✦ locations/import_mismatches ✦ locations/parent_taxonomy_selected ✦ api/v1/locations/update ✦ api/v2/locations/update 	
create_locations	<ul style="list-style-type: none"> ✦ locations/new ✦ locations/create ✦ locations/clone_taxonomy ✦ locations/step2 ✦ locations/nest ✦ api/v1/locations/create ✦ api/v2/locations/create 	
destroy_locations	<ul style="list-style-type: none"> ✦ locations/destroy ✦ api/v1/locations/destroy ✦ api/v2/locations/destroy 	
view_locations	<ul style="list-style-type: none"> ✦ locations/index ✦ locations/show ✦ locations/auto_complete_search ✦ api/v1/locations/index ✦ api/v1/locations/show ✦ api/v2/locations/index ✦ api/v2/locations/show 	
view_mail_notifications	<ul style="list-style-type: none"> ✦ mail_notifications/index ✦ mail_notifications/auto_complete_search ✦ mail_notifications/show ✦ api/v2/mail_notifications/index ✦ api/v2/mail_notifications/show 	
view_media	<ul style="list-style-type: none"> ✦ media/index ✦ media/show ✦ media/auto_complete_search ✦ api/v1/media/index ✦ api/v1/media/show ✦ api/v2/media/index ✦ api/v2/media/show 	

Permission Name	Actions	Resource Type
create_media	<ul style="list-style-type: none"> ✧ media/new ✧ media/create ✧ api/v1/media/create ✧ api/v2/media/create 	
destroy_media	<ul style="list-style-type: none"> ✧ media/destroy ✧ api/v1/media/destroy ✧ api/v2/media/destroy 	
edit_media	<ul style="list-style-type: none"> ✧ media/edit ✧ media/update ✧ api/v1/media/update ✧ api/v2/media/update 	
edit_models	<ul style="list-style-type: none"> ✧ models/edit ✧ models/update ✧ api/v1/models/update ✧ api/v2/models/update 	
view_models	<ul style="list-style-type: none"> ✧ models/index ✧ models/show ✧ models/auto_complete_search ✧ api/v1/models/index ✧ api/v1/models/show ✧ api/v2/models/index ✧ api/v2/models/show 	
create_models	<ul style="list-style-type: none"> ✧ models/new ✧ models/create ✧ api/v1/models/create ✧ api/v2/models/create 	
destroy_models	<ul style="list-style-type: none"> ✧ models/destroy ✧ api/v1/models/destroy ✧ api/v2/models/destroy 	

Permission Name	Actions	Resource Type
view_operatingsystems	<ul style="list-style-type: none"> ✦ operatingsystems/index ✦ operatingsystems/show ✦ operatingsystems/bootfiles ✦ operatingsystems/auto_complete_search ✦ api/v1/operatingsystems/index ✦ api/v1/operatingsystems/show ✦ api/v1/operatingsystems/bootfiles ✦ api/v2/operatingsystems/index ✦ api/v2/operatingsystems/show ✦ api/v2/operatingsystems/bootfiles ✦ api/v2/os_default_templates/index ✦ api/v2/os_default_templates/show ✦ ["operatingsystems/available_kickstart_repo"] 	
destroy_operatingsystems	<ul style="list-style-type: none"> ✦ operatingsystems/destroy ✦ api/v1/operatingsystems/destroy ✦ api/v2/operatingsystems/destroy ✦ api/v2/os_default_templates/create 	
create_operatingsystems	<ul style="list-style-type: none"> ✦ operatingsystems/new ✦ operatingsystems/create ✦ api/v1/operatingsystems/create ✦ api/v2/operatingsystems/create ✦ api/v2/os_default_templates/create 	
edit_operatingsystems	<ul style="list-style-type: none"> ✦ operatingsystems/edit ✦ operatingsystems/update ✦ api/v1/operatingsystems/update ✦ api/v2/operatingsystems/update ✦ api/v2/parameters/create ✦ api/v2/parameters/update ✦ api/v2/parameters/destroy ✦ api/v2/parameters/reset ✦ api/v2/os_default_templates/create ✦ api/v2/os_default_templates/update ✦ api/v2/os_default_templates/destroy 	
create_organizations	<ul style="list-style-type: none"> ✦ organizations/new ✦ organizations/create ✦ organizations/clone_taxonomy ✦ organizations/step2 ✦ organizations/nest ✦ api/v1/organizations/create ✦ api/v2/organizations/create ✦ ["katello/api/v2/organizations/create"] 	

Permission Name	Actions	Resource Type
view_organizations	<ul style="list-style-type: none"> ✳ organizations/index ✳ organizations/show ✳ organizations/auto_complete_search ✳ api/v1/organizations/index ✳ api/v1/organizations/show ✳ api/v2/organizations/index ✳ api/v2/organizations/show ✳ ["katello/api/v2/organizations/index", "katello/api/v2/organizations/show", "katello/api/v2/organizations/redhat_provider", "katello/api/v2/organizations/download_debug_certificate", "katello/api/v2/tasks/index"] 	
edit_organizations	<ul style="list-style-type: none"> ✳ organizations/edit ✳ organizations/update ✳ organizations/import_mismatches ✳ organizations/parent_taxonomy_selected ✳ api/v1/organizations/update ✳ api/v2/organizations/update ✳ ["katello/api/v2/organizations/update", "katello/api/v2/organizations/autoattach_subscriptions"] 	
destroy_organizations	<ul style="list-style-type: none"> ✳ organizations/destroy ✳ api/v1/organizations/destroy ✳ api/v2/organizations/destroy ✳ ["katello/api/v2/organizations/destroy"] 	
assign_organizations	<ul style="list-style-type: none"> ✳ organizations/assign_all_hosts ✳ organizations/assign_hosts ✳ organizations/assign_selected_hosts 	
view_ptables	<ul style="list-style-type: none"> ✳ ptables/index ✳ ptables/show ✳ ptables/auto_complete_search ✳ api/v1/ptables/index ✳ api/v1/ptables/show ✳ api/v2/ptables/index ✳ api/v2/ptables/show 	
edit_ptables	<ul style="list-style-type: none"> ✳ ptables/edit ✳ ptables/update ✳ api/v1/ptables/update ✳ api/v2/ptables/update 	

Permission Name	Actions	Resource Type
destroy_ptables	<ul style="list-style-type: none"> ✦ ptables/destroy ✦ api/v1/ptables/destroy ✦ api/v2/ptables/destroy 	
create_ptables	<ul style="list-style-type: none"> ✦ ptables/new ✦ ptables/create ✦ api/v1/ptables/create ✦ api/v2/ptables/create 	
view_plugins	<ul style="list-style-type: none"> ✦ plugins/index ✦ api/v2/plugins/index 	
destroy_products	<ul style="list-style-type: none"> ✦ katello/api/v2/products/destroy ✦ katello/api/v2/repositories/destroy ✦ katello/api/v2/products_bulk_actions/destroy_products ✦ katello/api/v2/repositories_bulk_actions/destroy_repositories 	Katello::Product
edit_products	<ul style="list-style-type: none"> ✦ katello/api/v2/products/update ✦ katello/api/v2/repositories/update ✦ katello/api/v2/repositories/remove_content ✦ katello/api/v2/repositories/import_uploads ✦ katello/api/v2/repositories/upload_content ✦ katello/api/v2/products_bulk_actions/update_sync_plans ✦ katello/api/v2/content_uploads/create ✦ katello/api/v2/content_uploads/update ✦ katello/api/v2/content_uploads/destroy ✦ katello/api/v2/organizations/repo_discover ✦ katello/api/v2/organizations/cancel_repo_discover 	Katello::Product
sync_products	<ul style="list-style-type: none"> ✦ katello/api/v2/products/sync ✦ katello/api/v2/repositories/sync ✦ katello/api/v2/products_bulk_actions/sync_products ✦ katello/api/v2/repositories_bulk_actions/sync_repositories ✦ katello/api/v2/sync/index ✦ katello/sync_management/index ✦ katello/sync_management/sync_status ✦ katello/sync_management/product_status ✦ katello/sync_management/sync ✦ katello/sync_management/destroy ✦ katello/dashboard/sync 	Katello::Product

Permission Name	Actions	Resource Type
view_products	<ul style="list-style-type: none"> ✦ katello/products/auto_complete ✦ katello/products/auto_complete_search ✦ katello/api/v2/products/index ✦ katello/api/v2/products/show ✦ katello/api/v2/repositories/index ✦ katello/api/v2/repositories/show ✦ katello/api/v2/packages/index ✦ katello/api/v2/packages/show ✦ katello/api/v2/distributions/index ✦ katello/api/v2/distributions/show ✦ katello/api/v2/package_groups/index ✦ katello/api/v2/package_groups/show ✦ katello/api/v2/errata/index ✦ katello/api/v2/errata/show ✦ katello/api/v2/puppet_modules/index ✦ katello/api/v2/puppet_modules/show ✦ katello/errata/short_details ✦ katello/errata/auto_complete ✦ katello/packages/details ✦ katello/packages/auto_complete ✦ katello/puppet_modules/show ✦ katello/repositories/auto_complete_library ✦ katello/content_search/index ✦ katello/content_search/products ✦ katello/content_search/repos ✦ katello/content_search/packages ✦ katello/content_search/errata ✦ katello/content_search/puppet_modules ✦ katello/content_search/packages_items ✦ katello/content_search/errata_items ✦ katello/content_search/puppet_modules_items ✦ katello/content_search/repo_packages ✦ katello/content_search/repo_errata ✦ katello/content_search/repo_puppet_modules ✦ katello/content_search/repo_compare_errata ✦ katello/content_search/repo_compare_packages ✦ katello/content_search/repo_compare_puppet_modules 	Katello::Product
create_products	<ul style="list-style-type: none"> ✦ katello/api/v2/products/create ✦ katello/api/v2/repositories/create 	Katello::Product
my_account	<ul style="list-style-type: none"> ✦ users/edit ✦ ["katello/api/v2/tasks/show"] 	
user_logout	<ul style="list-style-type: none"> ✦ users/logout 	

Permission Name	Actions	Resource Type
create_puppetclasses	<ul style="list-style-type: none"> ✦ puppetclasses/new ✦ puppetclasses/create ✦ api/v1/puppetclasses/create ✦ api/v2/puppetclasses/create 	
import_puppetclasses	<ul style="list-style-type: none"> ✦ puppetclasses/import_environments ✦ puppetclasses/obsolete_and_new ✦ api/v1/environments/import_puppetclasses ✦ api/v2/environments/import_puppetclasses ✦ api/v1/smart_proxies/import_puppetclasses ✦ api/v2/smart_proxies/import_puppetclasses 	
destroy_puppetclasses	<ul style="list-style-type: none"> ✦ puppetclasses/destroy ✦ api/v1/puppetclasses/destroy ✦ api/v2/puppetclasses/destroy 	
edit_puppetclasses	<ul style="list-style-type: none"> ✦ puppetclasses/edit ✦ puppetclasses/update ✦ puppetclasses/override ✦ api/v1/puppetclasses/update ✦ api/v2/puppetclasses/update ✦ api/v1/lookup_keys/create ✦ api/v1/lookup_keys/update ✦ api/v1/lookup_keys/destroy ✦ api/v2/smart_variables/create ✦ api/v2/smart_variables/update ✦ api/v2/smart_variables/destroy ✦ api/v2/smart_class_parameters/create ✦ api/v2/smart_class_parameters/update ✦ api/v2/smart_class_parameters/destroy 	
view_puppetclasses	<ul style="list-style-type: none"> ✦ puppetclasses/index ✦ puppetclasses/show ✦ puppetclasses/auto_complete_search ✦ api/v1/puppetclasses/index ✦ api/v1/puppetclasses/show ✦ api/v2/puppetclasses/index ✦ api/v2/puppetclasses/show ✦ api/v1/lookup_keys/index ✦ api/v1/lookup_keys/show ✦ api/v2/smart_variables/index ✦ api/v2/smart_variables/show ✦ api/v2/smart_class_parameters/index ✦ api/v2/smart_class_parameters/show 	

Permission Name	Actions	Resource Type
create_realms	<ul style="list-style-type: none"> ✧ realms/new ✧ realms/create ✧ api/v2/realms/create 	
edit_realms	<ul style="list-style-type: none"> ✧ realms/edit ✧ realms/update ✧ api/v2/realms/update 	
destroy_realms	<ul style="list-style-type: none"> ✧ realms/destroy ✧ api/v2/realms/destroy 	
view_realms	<ul style="list-style-type: none"> ✧ realms/index ✧ realms/show ✧ realms/auto_complete_search ✧ api/v2/realms/index ✧ api/v2/realms/show 	
rh_telemetry_configurations	<ul style="list-style-type: none"> ✧ redhat_access/telemetry_configurations/show ✧ redhat_access/telemetry_configurations/update 	
view_search	<ul style="list-style-type: none"> ✧ redhat_access/search/index 	
view_log_viewer	<ul style="list-style-type: none"> ✧ redhat_access/logviewer/index 	
attachments	<ul style="list-style-type: none"> ✧ redhat_access/attachments/index ✧ redhat_access/attachments/create 	
rh_telemetry_view	<ul style="list-style-type: none"> ✧ redhat_access/analytics_dashboard/index 	
rh_telemetry_api	<ul style="list-style-type: none"> ✧ redhat_access/api/telemetry_api/proxy ✧ redhat_access/api/telemetry_api/connection_status 	
logs	<ul style="list-style-type: none"> ✧ redhat_access/logs/index 	
configuration	<ul style="list-style-type: none"> ✧ redhat_access/configuration/index 	
app_root	<ul style="list-style-type: none"> ✧ redhat_access/redhat_access/index 	
view_cases	<ul style="list-style-type: none"> ✧ redhat_access/cases/index ✧ redhat_access/cases/create 	

Permission Name	Actions	Resource Type
destroy_registries	<ul style="list-style-type: none"> registries/destroy api/v2/registries/destroy 	DockerRegistry
create_registries	<ul style="list-style-type: none"> registries/new registries/create registries/update registries/edit api/v2/registries/create api/v2/registries/update 	DockerRegistry
view_registries	<ul style="list-style-type: none"> registries/index registries/show api/v2/registries/index api/v2/registries/show 	DockerRegistry
destroy_reports	<ul style="list-style-type: none"> reports/destroy api/v1/reports/destroy api/v2/reports/destroy 	
upload_reports	<ul style="list-style-type: none"> api/v2/reports/create 	
view_reports	<ul style="list-style-type: none"> reports/index reports/show reports/auto_complete_search api/v1/reports/index api/v1/reports/show api/v1/reports/last api/v2/reports/index api/v2/reports/show api/v2/reports/last 	
edit_roles	<ul style="list-style-type: none"> roles/edit roles/update api/v2/roles/update 	
view_roles	<ul style="list-style-type: none"> roles/index roles/auto_complete_search api/v2/roles/index api/v2/roles/show 	
create_roles	<ul style="list-style-type: none"> roles/new roles/create roles/clone api/v2/roles/create 	
destroy_roles	<ul style="list-style-type: none"> roles/destroy api/v2/roles/destroy 	

Permission Name	Actions	Resource Type
access_settings	<ul style="list-style-type: none"> ✦ home/settings 	
view_smart_proxies	<ul style="list-style-type: none"> ✦ smart_proxies/index ✦ smart_proxies/ping ✦ smart_proxies/auto_complete_search ✦ api/v1/smart_proxies/index ✦ api/v1/smart_proxies/show ✦ api/v2/smart_proxies/index ✦ api/v2/smart_proxies/show 	
create_smart_proxies	<ul style="list-style-type: none"> ✦ smart_proxies/new ✦ smart_proxies/create ✦ api/v1/smart_proxies/create ✦ api/v2/smart_proxies/create 	
destroy_smart_proxies	<ul style="list-style-type: none"> ✦ smart_proxies/destroy ✦ api/v1/smart_proxies/destroy ✦ api/v2/smart_proxies/destroy 	
edit_smart_proxies	<ul style="list-style-type: none"> ✦ smart_proxies/edit ✦ smart_proxies/update ✦ smart_proxies/refresh ✦ api/v1/smart_proxies/update ✦ api/v1/smart_proxies/refresh ✦ api/v2/smart_proxies/update ✦ api/v2/smart_proxies/refresh 	
destroy_smart_proxies_autosign	<ul style="list-style-type: none"> ✦ autosign/destroy 	
view_smart_proxies_autosign	<ul style="list-style-type: none"> ✦ autosign/index ✦ autosign/show ✦ api/v1/autosign/index ✦ api/v2/autosign/index 	
create_smart_proxies_autosign	<ul style="list-style-type: none"> ✦ autosign/new ✦ autosign/create 	
view_smart_proxies_puppetca	<ul style="list-style-type: none"> ✦ puppetca/index 	
edit_smart_proxies_puppetca	<ul style="list-style-type: none"> ✦ puppetca/update 	
destroy_smart_proxies_puppetca	<ul style="list-style-type: none"> ✦ puppetca/destroy 	

Permission Name	Actions	Resource Type
view_statistics	<ul style="list-style-type: none"> ✦ statistics/index ✦ api/v1/statistics/index ✦ api/v2/statistics/index 	
edit_subnets	<ul style="list-style-type: none"> ✦ subnets/edit ✦ subnets/update ✦ api/v1/subnets/update ✦ api/v2/subnets/update 	
view_subnets	<ul style="list-style-type: none"> ✦ subnets/index ✦ subnets/show ✦ subnets/auto_complete_search ✦ api/v1/subnets/index ✦ api/v1/subnets/show ✦ api/v2/subnets/index ✦ api/v2/subnets/show 	
create_subnets	<ul style="list-style-type: none"> ✦ subnets/new ✦ subnets/create ✦ api/v1/subnets/create ✦ api/v2/subnets/create 	
destroy_subnets	<ul style="list-style-type: none"> ✦ subnets/destroy ✦ api/v1/subnets/destroy ✦ api/v2/subnets/destroy 	
import_subnets	<ul style="list-style-type: none"> ✦ subnets/import ✦ subnets/create_multiple 	
view_subscriptions	<ul style="list-style-type: none"> ✦ katello/api/v2/subscriptions/index ✦ katello/api/v2/subscriptions/show ✦ katello/api/v2/subscriptions/available ✦ katello/api/v2/subscriptions/manifest_history ✦ katello/dashboard/subscriptions ✦ katello/dashboard/subscriptions_totals ✦ katello/api/v2/repository_sets/index ✦ katello/api/v2/repository_sets/show ✦ katello/api/v2/repository_sets/available_repositories 	Organization
attach_subscriptions	<ul style="list-style-type: none"> ✦ katello/api/v2/subscriptions/create 	Organization
unattach_subscriptions	<ul style="list-style-type: none"> ✦ katello/api/v2/subscriptions/destroy 	Organization

Permission Name	Actions	Resource Type
import_manifest	<ul style="list-style-type: none"> ✦ katello/products/available_repositories ✦ katello/products/toggle_repository ✦ katello/providers/redhat_provider ✦ katello/providers/redhat_provider_tab ✦ katello/api/v2/subscriptions/upload ✦ katello/api/v2/subscriptions/refresh_manifest ✦ katello/api/v2/repository_sets/enable ✦ katello/api/v2/repository_sets/disable 	Organization
delete_manifest	<ul style="list-style-type: none"> ✦ katello/api/v2/subscriptions/delete_manifest 	Organization
destroy_sync_plans	<ul style="list-style-type: none"> ✦ katello/api/v2/sync_plans/destroy 	Katello::SyncPlan
view_sync_plans	<ul style="list-style-type: none"> ✦ katello/sync_plans/all ✦ katello/sync_plans/index ✦ katello/sync_plans/auto_complete_search ✦ katello/api/v2/sync_plans/index ✦ katello/api/v2/sync_plans/show ✦ katello/api/v2/sync_plans/add_products ✦ katello/api/v2/sync_plans/remove_products ✦ katello/api/v2/sync_plans/available_products 	Katello::SyncPlan
create_sync_plans	<ul style="list-style-type: none"> ✦ katello/api/v2/sync_plans/create 	Katello::SyncPlan
edit_sync_plans	<ul style="list-style-type: none"> ✦ katello/api/v2/sync_plans/update 	Katello::SyncPlan
view_tasks	<ul style="list-style-type: none"> ✦ trends/show 	
view_trends	<ul style="list-style-type: none"> ✦ trends/index ✦ trends/show 	
update_trends	<ul style="list-style-type: none"> ✦ trends/count 	
destroy_trends	<ul style="list-style-type: none"> ✦ trends/destroy 	
create_trends	<ul style="list-style-type: none"> ✦ trends/new ✦ trends/create 	
edit_trends	<ul style="list-style-type: none"> ✦ trends/edit ✦ trends/update 	

Permission Name	Actions	Resource Type
my_organizations	<ul style="list-style-type: none"> ✦ katello/api/rhsm/candlepin_proxies/list_owners 	
view_usergroups	<ul style="list-style-type: none"> ✦ usergroups/index ✦ usergroups/show ✦ usergroups/auto_complete_search ✦ api/v1/usergroups/index ✦ api/v1/usergroups/show ✦ api/v2/usergroups/index ✦ api/v2/usergroups/show 	
edit_usergroups	<ul style="list-style-type: none"> ✦ usergroups/edit ✦ usergroups/update ✦ api/v1/usergroups/update ✦ api/v2/usergroups/update 	
destroy_usergroups	<ul style="list-style-type: none"> ✦ usergroups/destroy ✦ api/v1/usergroups/destroy ✦ api/v2/usergroups/destroy 	
create_usergroups	<ul style="list-style-type: none"> ✦ usergroups/new ✦ usergroups/create ✦ api/v1/usergroups/create ✦ api/v2/usergroups/create 	
view_users	<ul style="list-style-type: none"> ✦ users/index ✦ users/show ✦ users/auto_complete_search ✦ api/v1/users/index ✦ api/v1/users/show ✦ api/v2/users/index ✦ api/v2/users/show 	
create_users	<ul style="list-style-type: none"> ✦ users/new ✦ users/create ✦ users/auth_source_selected ✦ api/v1/users/create ✦ api/v2/users/create 	
edit_users	<ul style="list-style-type: none"> ✦ users/edit ✦ users/update ✦ users/auth_source_selected ✦ api/v1/users/update ✦ api/v2/users/update 	
destroy_users	<ul style="list-style-type: none"> ✦ users/destroy ✦ api/v1/users/destroy ✦ api/v2/users/destroy 	

Appendix B. Revision History

Revision 2-6	Wed Jul 22 2015	David O'Brien
BZ 1241992: Add note about support only for v2 of API.		
Revision 2-5	Thu Jul 16 2015	David O'Brien
Fixed URL to API reference. Final technical review before GA.		
Revision 2-4	Wed Jul 15 2015	Jo Somers
Added API reference URL.		
Revision 2-3	Sun Jun 14 2015	David O'Brien
6.1 Public Beta Release. Add edition number.		
Revision 2-2	Wed May 6 2015	David O'Brien
Update product release version.		
Revision 2-1	Wed Apr 8 2015	Megan Lewis
Updated the brand. Removed Preface.		
Revision 2-0	Thu Nov 20 2014	David O'Brien
Remove chapters that describe each API.		
Revision 1-0	Tue Sep 9 2014	Athene Chan
Red Hat Satellite 6.0 GA Release		
Revision 0-9.1	Tue Jul 1 2014	Athene Chan
Edited content specification details.		
Revision 0-9	Mon Jun 30 2014	Athene Chan
Preparing book for Beta release.		
Revision 0-8.403	Mon Nov 11 2013	Rüdiger Landmann
Rebuild with Publican 4.0.0		
Revision 0-08	Mon Nov 11 2013	Dan Macpherson
Fixing minor errors.		
Revision 0-07	Mon 11 Nov 2013	Dan Macpherson
Preparation for MDP2.		
Revision 0-06	Wed 09 Oct 2013	Dan Macpherson
Finalizing QE review implementation.		
Revision 0-05	Thu 26 Sep 2013	Dan Macpherson
Minor QE review fixes.		
Revision 0-04	Wed 25 Sep 2013	Dan Macpherson

Minor QE review fixes.

Revision 0-03	Wed 25 Sep 2013	Dan Macpherson
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Implementation of QE review feedback.

Revision 0-02	Wed 14 Aug 2013	Dan Macpherson
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Build of book for technical review.

Revision 0-01	Tue 28 May 2013	Athene Chan
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Initial book creation of the Red Hat Satellite API Guide.