Red Hat Virtualization 4.0

Release Notes

Release notes for Red Hat Virtualization 4.0

Red Hat Virtualization 4.0 Release Notes

Release notes for Red Hat Virtualization 4.0

Red Hat Virtualization Documentation Team
Red Hat Customer Content Services
rhev-docs@redhat.com

Legal Notice

Abstract

The Release Notes provide high-level coverage of the improvements and additions that have been implemented in Red Hat Virtualization 4.0.

Table of Contents

CHAPTER 1. INTRODUCTION

1.1. INTRODUCTION TO RED HAT VIRTUALIZATION

Red Hat Virtualization is an enterprise-grade server and desktop virtualization platform built on Red Hat Enterprise Linux. There are three core components to a Red Hat Virtualization environment:

Red Hat Virtualization Manager

A server that manages and provides access to the resources in the environment. This server can be a physical machine or a virtual machine. Moreover, the Manager can be set up as a virtual machine on a host in an environment that the Manager itself manages. This setup is known as a self-hosted engine setup.

Storage

Storage is used to store the data associated with virtual machines in the environment such as the virtual machines themselves and ISO files that can be used to install operating systems or other software on those virtual machines. Storage can be implemented on several storage types, including NFS, iSCSI, GlusterFS, and Fibre Channel.

Hosts

Hosts are servers that provide the processing capabilities and memory resources used to run virtual machines. In Red Hat Virtualization, servers running Red Hat Enterprise Linux 6 or Red Hat Enterprise Linux 7, or a minimal operating system specifically designed to operate as a host in Red Hat Virtualization environments known as the Red Hat Virtualization Host can be used as hosts.

In addition to these core components, Red Hat Virtualization allows you to set up supporting components such as a scheduler and remote servers for hosting the databases used in the environment, and take advantages of resources in Red Hat Enterprise Linux OpenStack Platform and VMware environments.

1.2. SUBSCRIPTIONS

To install the Red Hat Virtualization Manager and hosts, your systems must be registered with the Content Delivery Network using Red Hat Subscription Management. This section outlines the entitlements and channels required to set up a Red Hat Virtualization environment.

IMPORTANT

Red Hat is transitioning the RHN-hosted interface into the Red Hat Subscription Management (RHSM) interfaces by July 31, 2017. If your current systems are registered to RHN Classic, see Migrating from RHN Classic to Red Hat Subscription Management (RHSM) for Red Hat Virtualization for instructions on how to migrate your systems to RHSM.

1.2.1. Required Entitlements and Repositories

The packages provided in the following repositories are required to install and configure a functioning Red Hat Virtualization environment. When one of these repositories is required to install a package, the steps required to enable the repository are provided in the appropriate location in the *Installation Guide* or *Self-Hosted Engine Guide*.

Table 1.1. Red Hat Virtualization Manager

Subscription Pool	Repository Name	Repository Label	Details
`Red Hat Enterprise Linux Server`	`Red Hat Enterprise Linux Server`	`rhel-7-server-rpms`	Provides the Red Hat Enterprise Linux 7 Server.
`Red Hat Enterprise Linux Server`	`RHEL Server Supplementary`	`rhel-7-server-supplementary-rpms`	Provides the virtio-win package, which provides the Windows VirtIO drivers for use in virtual machines.
`Red Hat Virtualization`	`Red Hat Virtualization`	`rhel-7-server-rhv-4.0-rpms`	Provides the Red Hat Virtualization Manager.
`Red Hat Virtualization`	`Red Hat JBoss Enterprise Application Platform`	`jb-eap-7.0-for-rhel-7-server-rpms`	Provides the supported release of Red Hat JBoss Enterprise Application Platform on which the Manager runs.

Table 1.2. Red Hat Virtualization Host

Subscription Pool	Repository Name	Repository Label	Details
`Red Hat Virtualization`	`Red Hat Virtualization Host`	`rhel-7-server-rhvh-4-rpms`	Provides the rhev-hypervisor7-ng-image-update package, which allows you to update the image installed on the host.

Table 1.3. Red Hat Enterprise Linux 7 Hosts

Subscription Pool	Repository Name	Repository Label	Details
`Red Hat Enterprise Linux Server`	`Red Hat Enterprise Linux Server`	`rhel-7-server-rpms`	Provides the Red Hat Enterprise Linux 7 Server.
`Red Hat Virtualization`	`Red Hat Virtualization Management Agents (RPMs)`	`rhel-7-server-rhv-4-mgmt-agent-rpms`	Provides the QEMU and KVM packages required for using Red Hat Enterprise Linux 7 servers as virtualization hosts.

1.2.2. Optional Entitlements and Repositories

The packages provided in the following repositories are not required to install and configure a functioning

Red Hat Virtualization environment. However, they are required to install packages that provide supporting functionality on virtual machines and client systems such as USB redirection and virtual machine resource monitoring. When one of these repositories is required to install a package, the steps required to enable the repository are provided in the appropriate location in the *Installation Guide* or *Self-Hosted Engine Guide*.

Table 1.4. Optional Entitlements and Repositories

Subscription Pool	Repository Name	Repository Label	Details
`Red Hat Enterprise Linux Server`	`RHEL Server Supplementary (v. 6 64-bit x86_64)`	`rhel-6-server-supplementary-rpms`	Provides the spice-usb-share and kmod-kspiceusb-rhel60 packages for Red Hat Enterprise Linux 6, which enables USB redirection (legacy mode) on Red Hat Enterprise Linux 6 clients.
`Red Hat Enterprise Linux Server`	`RHEL Supplementary EUS (v. 5.9.z for 64-bit x86_64)`	`rhel-5.9.z-server-supplementary-rpms`	Provides the spice-usb-share and kmod-kspiceusb-rhel5u6 packages for Red Hat Enterprise Linux 5, which enables USB redirection (legacy mode) on Red Hat Enterprise Linux 5 clients.
`Red Hat Enterprise Linux Server`	`Red Hat Enterprise Linux 7 Server - RH Common (v.7 Server for x86_64)`	`rhel-7-server-rh-common-rpms`	Provides the rhevm-guest-agent-common package for Red Hat Enterprise Linux 7, which allows you to monitor virtual machine resources on Red Hat Enterprise Linux 7 clients.
`Red Hat Enterprise Linux Server`	`Red Hat Enterprise Virt Agent (v.6 Server for x86_64)`	`rhel-6-server-rhv-4-agent-rpms`	Provides the rhevm-guest-agent-common package for Red Hat Enterprise Linux 6, which allows you to monitor virtual machine resources on Red Hat Enterprise Linux 6 clients.

Subscription Pool	Repository Name	Repository Label	Details
Red Hat Enterprise Linux Server	**Red Hat Enterprise Virt Agent (v.5 Server for x86_64)**	**rhel-5-server-rhv-4-agent-rpms**	Provides the rhev-guest-agent package for Red Hat Enterprise Linux 5, which allows you to monitor virtual machine resources on Red Hat Enterprise Linux 5 clients.

CHAPTER 2. RHV FOR IBM POWER

This release supports Red Hat Enterprise Linux 7 hosts on IBM POWER8 little endian hardware, and Red Hat Enterprise Linux 7 virtual machines on emulated IBM POWER8 hardware.
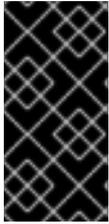
IMPORTANT

Previous releases of RHV for IBM Power required Red Hat Enterprise Linux hosts on POWER8 hardware to be installed from an ISO image. These hosts cannot be updated to be used with this release. You must reinstall Red Hat Enterprise Linux 7 hosts using the repositories outlined below.

The packages provided in the following repositories are required to install and configure aspects of a Red Hat Virtualization environment on POWER8 hardware.

Table 2.1. Required Entitlements and Repositories

Component	Subscription Pool	Repository Name	Repository Label	Details
Red Hat Virtualization Manager	`Red Hat Virtualization for IBM Power`	`Red Hat Virtualization for IBM Power`	`rhel-7-server-rhv-4-power-rpms`	Provides the Red Hat Virtualization Manager for use with IBM POWER8 hosts. The Manager itself must be installed on x86_64 architecture.
Red Hat Enterprise Linux 7 hosts, little endian	`Red Hat Enterprise Linux for Power, little endian`	`RHV Management Agent for IBM Power, little endian`	`rhel-7-server-rhv-4-mgmt-agent-for-power-le-rpms`	Provides the QEMU and KVM packages required for using Red Hat Enterprise Linux 7 servers on IBM Power (little endian) hardware as virtualization hosts.
	`Red Hat Enterprise Linux for Power, little endian`	`Red Hat Enterprise Linux for IBM Power, little endian`	`rhel-7-for-power-le-rpms`	Provides additional packages required for using Red Hat Enterprise Linux 7 servers on IBM Power (little endian) hardware as virtualization hosts.

Component	Subscription Pool	Repository Name	Repository Label	Details
Red Hat Enterprise Linux 7 virtual machines, big endian	**Red Hat Enterprise Linux for Power, big endian**	**RHV Tools for IBM Power**	`rhel-7-server-rhv-4-tools-for-power-le-rpms`	Provides the rhevm-guest-agent-common package for Red Hat Enterprise Linux 7 virtual machines on emulated IBM Power (big endian) hardware. The guest agents allow you to monitor virtual machine resources on Red Hat Enterprise Linux 7 clients.
Red Hat Enterprise Linux 7 virtual machines, little endian	**Red Hat Enterprise Linux for Power, little endian**	**RHV Tools for IBM Power, little endian**	`rhel-7-server-rhv-4-tools-for-power-le-rpms`	Provides the rhevm-guest-agent-common package for Red Hat Enterprise Linux 7 virtual machines on emulated IBM Power (little endian) hardware. The guest agents allow you to monitor virtual machine resources on Red Hat Enterprise Linux 7 clients.

Unsupported Features

The following Red Hat Virtualization features are not supported:

- Hot-plug CPU

- SPICE display

- SmartCard

- Sound device

- Guest SSO

- Integration with OpenStack Networking (Neutron), OpenStack Image (Glance), and OpenStack Volume (Cinder)

- Self-hosted engine

- Red Hat Virtualization Host (RHVH)

- Disk Block Alignment

For a full list of bugs that affect the RHV for IBM Power release, see
https://bugzilla.redhat.com/show_bug.cgi?id=1308609.

CHAPTER 3. RELEASE INFORMATION

These release notes highlight technology preview items, recommended practices, known issues, and deprecated functionality to be taken into consideration when deploying this release of Red Hat Virtualization.

Notes for updates released during the support lifecycle of this Red Hat Virtualization release will appear in the advisory text associated with each update or the *Red Hat Virtualization Technical Notes*. This document is available from the following page:

https://access.redhat.com/documentation/en/red-hat-virtualization

3.1. RED HAT VIRTUALIZATION 4.0 GA

3.1.1. Enhancements

This release of Red Hat Virtualization features the following enhancements:

BZ#1234328

> It is now possible to hot plug and unplug SR-IOV virtual functions to
> running virtual machines.

BZ#1092744

> With this release, a single sign on module has been added that
> authenticates the user once, and allows access to both the
> Administration Portal and User Portal. Signing off from one portal
> closes the session on SSO and the user is logged out of all portals.

BZ#1273041

> With this release, the Add Permissions dialog now has a new radio button
> called "My Groups", which lists the currently logged in user's groups.
> The user can use this option to grant permissions to other users in the
> same group.

BZ#1213309

> You can now replace bricks for replicate type Gluster volumes and
> perform maintenance tasks from the Administration Portal.

BZ#1110577

> With this release, the Administration Portal and User Portal are now
> translated into Italian.

BZ#1205641

> With this enhancement, the Manager monitors any unsynced entries in all
> Gluster replicated volumes. Unsynced entries are shown in the bricks
> subtab with the expected time to heal the entries. There will be a

warning icon in the volume and the bricks status column when there is an unsynced entry.

BZ#1194055

With this update, fence agents can now be specified using an IPv6 address. The whole fencing flow is now functional on IPv6 networks.

BZ#1216888

With this update, the engine-backup script no longer depends on ovirt-engine. This allows the backup of machines running ovirt services but not running ovirt-engine.

BZ#1172390

Data tables in the Administration portal support the 'Column Control' context menu which is triggered by right-clicking the table header area.

The context menu enables users to control the visibility and position of individual columns. This is useful for users who want to re-order columns.

BZ#1060791

In 4.0, the "guest_info" section has been removed from the REST API VM resource as it is no longer required.

BZ#1223732

Previously, there was no authorization information for users in the session management table, so you could not distinguish between two users with the same name from two different profiles (domains). With this release, the Active User Sessions tab now shows the authorization provider name for each user.

BZ#1054070

This release improves the user experience of guest OS installations. When using an installation CD and, after finishing with the OS installation, the CD is not used anymore and should be ejected, the suggested way is to use the Run Once dialog and attach the installation CD, then use "Start in paused mode" and/or "Enable boot menu" to select the boot media (CD) once. For this purpose the layout was changed so that these options are now right next to the Attach CD drop-down list.

BZ#1270581

Previously, Red Hat Virtualization only allowed hostdev passthrough of USB and PCI devices. To assign storage cards directly to a virtual machine users had to assign the whole adapter as PCI device. The problem with this approach is that PCI passthrough has specific hardware

requirements.

This feature allows administrators to passthrough a LUN directly to a
virtual machine, allowing for full set of SG commands. This means tapes,
changers, and anything speaking SCSI protocol can be assigned directly
without specific hardware requirements with the exception of assigned
device itself.

BZ#1273399

With this release, the Administration Portal reports the ID, image,
executed command, state, and name of Docker containers running on
virtual machines.

BZ#1217160

With this update, the upgrade of the ovirt-windows-guest-tools has been
simplified.

BZ#1182373

When one or more bricks are down on a started volume, you can now force
start the brick(s) through the Administration Portal.

BZ#1313917

This update supports the self-hosted engine upgrade path from Red Hat
Enterprise Virtualization 3.4 to Red Hat Virtualization 4.0 by migrating
filebase metadata and lockspace.

BZ#1197449

With this update, a new Source IP column was added to the Active Users
Sessions tab. This allows the user to identify which host a user is
using to connect to the Red Hat Virtualization Manager.

BZ#1140646

This release introduces Red Hat Virtualization Host, a major upgrade of
RHEV-H. RHVH is now based on the Red Hat Enterprise Linux installer and
Cockpit. This provides better hardware support, easier usage,
modernization, and better configuration management integration.

BZ#1037844

Previously, if a user password expired, it needed to be reset on the
LDAP server. Now there is a new capability added to the LDAP and JDBC
extensions to enable changing passwords from the front end in a new
change password screen.

BZ#1139306

With this release, errors raised during user authentication are transferred to the login page and displayed to the end user.

BZ#959705

Previously, an auto-generated snapshot was created during live storage migration and had to be manually removed afterwards. With this release, the auto-generated snapshot is automatically deleted after live storage migration.

BZ#1066594

With the update, the order in which MAC addresses are obtained from the MAC address pool has been altered. Previously, the leftmost available MAC address was returned from the MAC address pool when requested. This caused issues in certain environments when MAC addresses returned to MAC address pool were immediately queried from the MAC address pool by another process and confused some devices on the network as a device now has the MAC address that had been recently used by a different device. Now, the MAC address pool remembers that last returned MAC address for each address in its MAC address range and will return the first available MAC address following the most recently returned. If there is no further addresses left in the range the search starts from the beginning of the range. If there are multiple MAC address ranges with available MAC addresses they take turns in serving incoming requests in the same way available MAC addresses are selected.

BZ#1097653

Previously, Red Hat Virtualization only allowed hostdev passthrough of USB and PCI devices. With this update, administrators can connect FibreChannel tape devices to guest systems using hostdev passthrough.

BZ#1323941

With this update, a regular file system has been added for /etc on Red Hat Virtualization Hosts. This allows better alignment with Red Hat Enterprise Linux hosts and means the same set of tools can be used for both Red Hat Virtualization Hosts and Red Hat Enterprise Linux hosts.

BZ#1121653

With this release, users can use engine-config to set whether console windows open in full screen by default. The value can be set independently for the Administration Portal, Basic User Portal, and Extended User Portal. Consoles retrieved via REST share settings with the Administration Portal. The default can be set via engine-config by setting FullScreenWebadminDefault, FullScreenUserportalBasicDefault, and FullScreenUserportalExtendedDefault options.

BZ#1193224

With this update, the network filter has been enhanced to allow the

with this update, the network filter has been enhanced to allow the
administrator the ability to manage the network packet traffic to and
from virtual machines. The required filter can now be specified on the
vNIC profile via the web interface or the REST API. If no filter is
specified and the 'EnableMACAntiSpoofingFilterRules' is enabled via
engine-config tool the vNIC profile will use 'Enable MAC Anti Spoofing'
as the default filter

BZ#1182796

When a cluster is set to hyper-converged mode (with both Virt and
Gluster services enabled), for Gluster storage, only replica 3 volumes
are supported.

BZ#1104107

The SAM user format of profile\user is no longer supported.

BZ#1234394

Virtual machines from a stateful virtual machine pool are now always
started in stateful mode. The state of the virtual machine is preserved
even when the virtual machine is passed to a different user.

BZ#1182363

This update ensures that only supported volume types are displayed when
managing volumes in the Manager.

BZ#1083661

With this update, a Cluster Compatibility Version field has been added.
This field displays the cluster version supported by the host. This
field was added to the Hosts tab in the Details pane under the General
tab in the Info sub-tab.

BZ#1322940

To provide a way to configure gssapi using ticket cache for authz pool,
a new security domain called 'oVirtKerbAAA' was added to JBoss
configuration, which can be customized by using the following variables:

AAA_KRB5_CONF_FILE=path_to_krb5_conf
Specify the custom krb5.conf file. The default is /etc/ovirt-
engine/krb5.conf
Java supports only one krb5 configuration, if the user changes this
property, then manage-domains will stop working because its
configuration is managed in /etc/ovirt-engine/krb5.conf.

AAA_JAAS_USE_TICKET_CACHE=true/false
Enable or disable using the ticket cache file for authentication.

AAA_JAAS_TICKET_CACHE_FILE=path_to_ticket_cache

```
Specify the custom ticket cache file. The default is /tmp/krb5cc_${UID},
where UID is the ID of the ovirt user.

AAA_JAAS_USE_KEYTAB=false/true
Enable or disable using the keytab file for authentication.

AAA_JAAS_KEYTAB_FILE=path_to_keytab_file
Specify the custom keytab file. The default is ${OVIRT_HOME}/krb5.keytab
where OVIRT_HOME is home directory of ovirt user.

To use one of the features, the user has to create a new configuration
file and specify the correct values for those variables, for example:
/etc/ovirt-engine/engine.conf.d/99-jaas.conf.

To use the new security domain configuration from aaa-ldap, the user has
to specify the correct JAASClientName (default is oVirtKerb). Therefore,
to use this new configuration for authz pool, the user has to add
following line to aaa-ldap authz configuration:

pool.authz.auth.gssapi.jAASClientName = oVirtKerbAAA

To use it for both authn and authz, the user has to add the following
line to aaa-ldap configuration:

pool.default.auth.gssapi.jAASClientName = oVirtKerbAAA
```

BZ#1138139

```
This release adds the ability to register unregistered floating disks
through the GUI. Previously, because floating disks are not part of any
virtual machine or template, the user could only register floating disks
from the REST API, not from the GUI. Now there is a subtab in the GUI
called "Import Disk" which allows the user to register a floating disk
into the setup. Storage domains also support a functionality called
"Scan Disks", which scans the storage domain for unregistered floating
disks that are not reflected in the setup. This can be helpful for
managing disks from external storage domains.
```

BZ#1302427

```
With this update, the ability to import Red Hat Enterprise Linux KVM
guest images managed by libvirt directly to Red Hat Virtualization has
been added. To import KVM virtual machines from libvirt the libvirt uri,
username and password are required. The libvirt uri when using QEMU and
TCP is qemu+tcp://[USER]@[HOST]/system. QEMU and ssh is also supported
but requires that the VDSM user is enabled and public/private keys must
be generated for the VDSM user and exhanged with the libvirt server.
```

BZ#1201516

```
This enhancement provides support for guest agents on Red Hat Enterprise
Linux Atomic Host virtual machines.
```

BZ#1194989

Previously, it was only possible to remove a base template if there was no template sub-version based upon it. This update allows the removal of a base template, even if there are template sub-versions based upon it. The sub-version with lowest version number becomes the next base template for all other sub-versions. Version numbers are not affected meaning that the version number of the base template no longer needs to be 1.

BZ#1296274

With this update, a new configuration variable, ovirt.engine.aaa.authn.default.profile, has been added to the authn configuration file. Setting this variable ensures that the profile drop-down menu on the login page defaults to the selected profile. To configure this feature, add ovirt.engine.aaa.authn.default.profile to the authn configuration file for a selected profile and set the value to true then restart the ovirt-engine service. If the ovirt.engine.aaa.authn.default.profile variable is not defined in the authn configuration file the drop-down menu defaults to internal.

BZ#1334745

With this update, Red Hat Virtualization can now handle FCoE block storage. Depending on the FCoE card on the hosts, special configuration may be needed as described in https://access.redhat.com/documentation/en-US/Red_Hat_Enterprise_Linux/7/html/Storage_Administration_Guide/fcoe-config.html

To configure FCoE block storage, run engine-config -s UserDefinedNetworkCustomProperties='fcoe=^((enable|dcb|auto_vlan)= (yes|no),?)*$' on the Red Hat Virtualization Manager then restart the Manager. Ensure that the required host has vdsm-hook-fcoe installed then enable FCoE on a NIC.

To enable FCoE on a NIC, attach a network then set the FCoE network custom property to enable=yes[,dcb=yes][,auto_vlan=yes].

BZ#1317434

Previously, an auto-generated snapshot was created during live storage migration and had to be manually removed afterwards. With this release, the auto-generated snapshot is automatically deleted after live storage migration.

BZ#1336214

This update ensures that the auto-generated snapshot that is created during live storage migration (LSM) is automatically deleted if LSM fails.

BZ#1208860

With this enhancement, the Disk Tab in the Administration Portal now displays the template version next to the template name. It is now easier for users to check the template version the disk belongs to.

BZ#1253710

Cloud-Init and Sysprep settings can now be modified using REST APIs.

BZ#1254818

You can now use the REST API to assign affinity labels to hosts and virtual machines. A virtual machine can be scheduled on a host as long as the host has all the affinity labels the virtual machine has. It is also supported if the host has additional affinity labels that the virtual machine does not have.

BZ#1268133

With this enhancement, support for SNMP v3 traps was added. RHV-M is now able to provide SNMP v2c and v3 traps. New SNMP related options which can be set along with the default values can be found at: /usr/share/ovirt-engine/services/ovirt-engine-notifier/ovirt-engine-notifier.conf.

BZ#1275182

Previously, when the number of logical volumes in a storage domain reached the recommended maximum it was logged and a message was shown in the events pane. Now, a user can register to the event notifier and receive an email when the number of logical volumes in a storage domain reached the recommended maximum.

BZ#1273025

Previously, in the User Portal, all roles were displayed. With this enhancement, only the roles that can be assigned are listed to avoid confusion.

BZ#1270483

When creating a new virtual machine, if you enable Cloud-Init or Sysprep, the host name is automatically set to the virtual machine name provided. Previously, a user had to manually set the host name. Changing or deleting the host name is still allowed if required.

BZ#1287544

With this update, the ability to trigger activity inside of a virtual guest during live migration has been added. Examples of events that can be used as a trigger are before migration, after migration, before hibernation, or after hibernation. The hooks configuration base

directory is located in the /etc/ovirt-guest-agent/hooks.d directory on Linux systems and in Red Hat Virtualization Agent directory on Windows systems. Each event has a corresponding subdirectory and all files or symlinks in that directory will be executed. The executing user on Linux systems is 'ovirtagent'. If the script needs root permissions, the elevation must be executed by the creator of the hook script. The executing user on Windows systems is the System Service user.

BZ#1308861

A visual indicator has been added to the Hosts tab of the Administration Portal to identify the host running the self-hosted engine Manager virtual machine in self-hosted engine installations.

BZ#1298612

This update enables you to configure multiple NICs on a Red Hat Virtualization host to enable you to reach multiple networks at the same time.

BZ#1264767

This release enforces a minimum version of remote-viewer: 2.0-128 for Windows, 2.0-6 for RHEL 7, and 2.0-14 for RHEL 6. If the remote-viewer version is older than the enforced one, remote-viewer will show a link to documentation describing how to update.

BZ#1314375

Previously, to use external network providers, only OpenStack Networking (Neutron) is supported. With this update, any external network provider that implements the OpenStack Neutron REST API can be added to Red Hat Virtualization. The external network provider does not use the Neutron agent as the virtual interface driver implementation on the host. Instead, the virtual interface driver should be provided by the implementer of the external network provider. A read-only feature is also available to prevent users from modifying the external network provider from the Manager.

BZ#1317457

For a bond in mode 4 (link aggregation mode), all slaves must be configured properly on the switch side. If none of them are configured on the switch, the host side kernel reports the ad_partner_mac as 00:00:00:00:00:00.

This update retrieves the partner mac address and warns the Manager user if the bond is configured incorrectly. No warning is given if only one of the slaves are up and running.

BZ#1317453

When creating a virtual machine from a template, the user is able to

choose the format of the disks: either RAW or QCOW2. The Allocation
Policy section is now hidden. If the Template Provisioning is Thin, the
format of the disks will be marked as QCOW2 and the user won't be able
to change it. If the Template Provisioning is Clone, the user will be
able to select either QCOW2 or RAW.

BZ#1317468

Previously, when the number of logical volumes in a storage domain
reached the recommended maximum it was logged and a message was shown in
the events pane. Now, a user can register to the event notifier and
receive an email when the number of logical volumes in a storage domain
reached the recommended maximum.

BZ#1240954

It is now possible to specify a custom name for the template when
importing a Glance disk through the Administration Portal.

BZ#1317461

With this release, the "Edit" button under the Storage tab has been
renamed "Manage Domain" to comply to the product's standard.

BZ#1301104

Previously, any modification to the kernel command line had to be
executed and maintained by administrators. This process was more complex
in the Red Hat Enterprise Virtualization Hypervisor as the file system
had to be manually remounted as writable to make the required changes.

Now, a new UI selection has been added when adding or editing a host
that allows for kernel line modifications directly from the web
administration portal. These changes are then maintained by Red Hat
Virtualization. Supported modifications are displayed as checkboxes but
more complex modifications are also allowed as free text entry.

BZ#1277569

With this update, support for Red Hat Enterprise Linux Atomic Host as a
configurable system has been added to the Red Hat Virtualization
Manager.

BZ#1294984

Previously, if ovirt-log-collector was called without filters in large
scale environments hours of logs were collected and the output was
large. Now, ovirt-log-collector shows a warning if called without any
filters.

BZ#1308350

With this update, support has been added for skipping the LUN status
check in the REST API as checking the status of the LUN is a heavyweight
operation and this data is not always required. To enable this feature
set report_status to false. The default for report_status is true to
allow for backward compatibility. The report_status parameter is
available when getting a list of storage devices visible to a host or
when getting a specific storage device via a host, GET
/hosts/{host:id}/storage or GET /hosts/{host:id}/storage/{storage:id}.
For example:

```
GET /hosts/{host:id}/storage/{storage:id};report_status=false

<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_1136c205-74f7-43bd6993</serial>
      <size>10737418240</size>
      <vendor_id>LIO-ORG</vendor_id>
      <volume_group_id>O9Du7I-RahN</volume_group_id>
    </logical_unit>
  </logical_units>
  <type>iscsi</type>
  <host id="8bb5ade5-e988-4000-8b93-dbfc6717fe50"/>
</host_storage>
```

BZ#1324860

A new system dashboard is available in the Administration portal. The
dashboard provides an overview of the system status, and provides the
ability to analyze system issues.

BZ#1317253

With this release, you can use the Administration Portal to upload
virtual disk images and attach them to virtual machines. The uploaded
image must be a QEMU-compatible image file that can be connected to QEMU
virtual machines. Note that ovirt-imageio-proxy needs to be installed on
the Manager for this feature to work.

BZ#1281845

You can preserve disk content, including the local storage domain,
during a reinstallation of RHVH. Additional configuration during the
setup is required.

BZ#1271988

When creating a virtual machine from a template, the user is able to
choose the format of the disks: either RAW or QCOW2. The Allocation
Policy section is now hidden. If the Template Provisioning is Thin, the

format of the disks will be marked as QCOW2 and the user won't be able to change it. If the Template Provisioning is Clone, the user will be able to select either QCOW2 or RAW.

BZ#1296558

The Import Virtual Machine(s) window now lists virtual machines in alphabetical order, even after dragging virtual machines between lists.

BZ#1285788

Added a DEBUG mode to log sampling, hourly, and daily job times in the ovirt-engine-dwhd.log file.

To enable DEBUG mode, add a configuration file, for example /etc/ovirt-engine-dwhd/logging.conf, and add the value DWH_AGGREGATION_DEBUG=true in the file.

BZ#1310804

The instance type field was missing in the REST API virtual machine pool resource. This update adds the ability to pick one when creating the virtual machine pool, and to report the currently configured instance type.

BZ#1318746

With this update, new fields have been added to the session tab in Red Hat Virtualization to show the the client ip address, the session start time, and last access time.

BZ#1167262

You can now deploy or undeploy additional self-hosted engine hosts from the Administration Portal or using the REST API. Running 'hosted-engine --deploy' on additional self-hosted engine hosts is no longer required.

BZ#1316049

With this update, OpenStack Platform 8 has been certified as a supported external network provider for Red Hat Virtualization 4.0. Install hosts with OpenStack Platform 8's Neutron agent, either manually or via packstack, then add OpenStack Platform 8's Neutron service as an external network provider then add hosts to the Red Hat Virtualization 4.0 data center.

BZ#1316077

The Import Virtual Machine(s) window contains a tooltip question mark (?) next to the Data Center field when importing a VMWare source. When hovered over, the tooltip explains that folders can also be added to the Data Center field in the format <folder>/<Datacenter>.

–

BZ#1313295

> With this update, the virtual machine name is now included in the title
> of both noVNC and SPICE HTML5 windows. This means that it is now easier
> to know which virtual machine each console is connected to.

BZ#1323479

> With this update, RPM-based firmware updates can now be installed.

BZ#1358136

> This update prevents UI exceptions from repeatedly spamming the remote
> /var/log/ovirt-engine/ui.log after subsequent occurrences of the same
> error. Each remote operation is an HTTP request and consumes network
> resources.
>
> Any uncaught exception in the Administration Portal or User Portal is
> compared to the last one, and only logged remotely if it's not the same.
> All occurrences are still logged on the web browser.

BZ#1267508

> With this update, python-cheetah was replaced with python-jinja2 as the
> template-engine for services configuration files. This update was
> required as python-cheetah stopped receiving updates in 2012 and is not
> available in Red Hat Enterprise Linux 7.2.

BZ#1349277

> This release adds hooks to enable custom actions on several system
> events, such as before or after migration and hibernation.

BZ#1329536

> The new web UI called Cockpit is available to fine-tune and troubleshoot
> Red Hat Virtualization Hosts. Cockpit is integrated into the
> Administration Portal, and can be accessed via the Cockpit sub-tab of
> the Hosts tab.
>
> Cockpit is installed by default on Red Hat Virtualization Hosts. To use
> the feature on Red Hat Enterprise Linux-based hosts, install the
> following packages:
> - cockpit-ovirt-uiplugin package on the Red Hat Virtualization Manager
> - cockpit and optional cockpit-ovirt-dashboard packages on each host.

BZ#1346782

> With this release, the Administration Portal displays the operating
> system pretty name for all hosts that have an /etc/os-release file with
> the PRETTY_NAME entry. When you select a host, you can see an "OS

Description" field in the "Software" section of the "General" sub-tab. This field can be used to tell the difference between Red Hat Virtualization Hosts (RHVH) and RHEL hosts. Note: this enhancement is not accessible to the REST API.

BZ#1332180

A progress bar has been introduced to view the progress of file transfers when dragging and dropping files from a client machine to a guest machine.

BZ#1339247

The virt-viewer and libgovirt packages have been updated to adjust to authentication changes in Red Hat Virtualization 4.0. This ensures that the foreign menu continues working correctly on Red Hat Virtualization 4.0 when starting the remote-viewer utility using the web portal interface. Note, however, that the menu does not work when starting remote-viewer from the command line.

BZ#1357513

A virtual machine can now override the cluster compatibility version, meaning that within a cluster with a 4.0 compatibility level, there can be virtual machines with 3.6 compatibility, retaining the configuration and behavior of 3.6. That is 4.0 features are not applied to them.

BZ#1285883

The Virt Viewers .vv file's 'versions=' row requires a remote-viewer that supports the 'sso-token=' row. The minimum versions are:
- Windows (64-bit and 32-bit): 2.0-160
- Red Hat Enterprise Linux 7: 2.0-8
- Red Hat Enterprise Linux 6: No supporting sso-token planned.

BZ#1347157

In version 4 of the API, the top level /capabilities collection has been replaced with /clusterlevels, which contains information about the supported cluster levels (such as the available CPU types). The legal values for enumerated types, previously found in /capabilities, can now be found in /ovirt-engine/api/model.xml or /ovirt-engine/api/model.json.

BZ#1324440

With this update, a log message with the data warehouse application settings has been added to the log file each time the data warehouse is started. This message was added because the user can update the application settings and it provides a better way to debug and monitor the data warehouse settings.

BZ#1353893

With this update, the Red Hat Enterprise Virtualization Hypervisor (RHEV-H) has been renamed to the Red Hat Virtualization Host (RHVH) and the RPM names have been updated to reflect the name change.

BZ#1319708

Added Red Hat Virtualization Host support to Red Hat Virtualization to ensure that a Red Hat Enteprise Linux host and Red Hat Virtualization Host behave the same for all relevant host lifecycle flows, for example installations and upgrades.

BZ#1341060

The REST API now includes CORS support. The support depends on a filter developed by eBay. The ebay-cors-filter package is available in the standard RHV-M channel.

BZ#1347281

Removed foreign keys from the history database to provide better sampling scale performance.

BZ#1285446

When creating a virtual machine using the template name or Blank and not specifying the template version in the REST API, the latest template version is used. Prior to this enhancement, the template version, if not specified, was randomly selected.

BZ#1349309

The sampling interval default time has been decreased from 1 minute to 20 seconds to provide more accurate calculations for the new dashboards.

BZ#1356488

With this update, a new option been added to the options for a virtual machine pool for disk storage. This option allows the user to select Auto Select Disk Target, instead of a specific domain. This means that every new virtual machine in the pool will use the storage domain with the most available space.

BZ#1346218

The API HTML documentation is now automatically generated and available from any live Manager from the /ovirt-engine/api/model URL.

BZ#1305900

Added the ability to configure different bus interfaces (IDE, SCSI, and SATA) for different virtual machine chipsets. By default, the SATA interface is used for the Q35 chipset.

BZ#1318580

With this update, Red Hat Virtualization 4.0 can now restore backups taken of Red Hat Enterprise Virtualization 3.6. Red Hat Virtualization 4.0 does not support Red Hat Enterprise Linux 6 and, previously, this meant that users could not upgrade from Red Hat Enterprise Virtualization 3.6. Now, users can back up their Red Hat Enterprise Virtualization 3.6 and restore it on Red Hat Virtualization 4.0.

To backup Red Hat Enterprise Virtualization 3.6 run, engine-backup --mode=backup --file=engine-3.6.bck --log=backup.log. Other options for engine-backup, including remote databases, can be found in the engine-backup documentation, https://access.redhat.com/documentation/en-US/Red_Hat_Enterprise_Virtualization/3.6/html-single/Administration_Guide/index.html#sect-Backing_Up_and_Restoring_the_Red_Hat_Enterprise_Virtualization_Manager

To migrate to Red Hat Virtualization 4.0, install Red Hat Virtualization 4.0 then copy engine-3.6.bck to the Red Hat Enterprise Linux machine. Run engine-backup --mode=restore --file=engine-3.6.bck --log=restore.log --provision-db --no-restore-permissions to restore the backup then run engine-setup.

BZ#1348907

Previously, cluster compatibility version upgrades were blocked if there was a running virtual machine in the cluster. Now, the user is informed about running/suspended virtual machines in a cluster when changing the cluster version. All such virtual machines are marked with a Next Run Configuration symbol to denote the requirement for rebooting them as soon as possible after the cluster version upgrade.

BZ#1334748

With this release, Red Hat Virtualization can consume FCoE block storage. Depending on the FCoE card on the hosts, special configuration may be needed as described in https://access.redhat.com/documentation/en-US/Red_Hat_Enterprise_Linux/7/html/Storage_Administration_Guide/fcoe-config.html. To enable FCoe on a NIC, attach a network to it, and set the "fcoe" network custom property to enable=yes[,dcb=yes][,auto_vlan=yes].

BZ#1329104

Virtual machine monitoring and basic tuning and troubleshooting of hypervisors can be done through the Cockpit user interface. The cockpit package is installed by default for Red Hat Virtualization Host (RHVH) and is a technology preview feature and requires an optional

installation for standard Red Hat Enterprise Linux hosts. The cockpit-ovirt RPM is available in the standard Red Hat Enterprise Linux host repositories.

BZ#1302598

To simplify Data Warehouse database views for the user, this update adds a view for each time period (sample, hourly, and daily). The views join the configuration views with statistics views of the entities it relates to, for example network interface and disks. This means three new views have been added for virtual machines, and three for hosts.

BZ#1358783

This update improves the error message received when Cockpit cannot be displayed in the Administration portal's Host's sub-tab. The error now includes SSL certificate information and a link to the Cockpit ping page.

BZ#1164302

With this update, when logging into the Administration Portal, the browser password setting is used so users do not need to re-enter their user name and password.

Note: For Google Chrome, the Manager CA needs to be imported first. Use the following steps:
1. Open Chrome Settings > Show advanced settings > HTTPS/SSL > Manage certificates.
2. Click the Authorities tab and click import.
3. Select the Manager CA, click ok, and check all boxes in the Edit trust settings in the subsequent dialog.
4. Restart your browser and now Google Chrome will prompt you to save passwords.

BZ#1199933

This release adds support for fencing of ilo3 and ilo4 via SSH.

BZ#1343077

With this update, virtual disks can now be uploaded to a Red Hat Virtualization storage domain from the Administration Portal. To upload a virtual disk from the Administration Portal, go to the Storage tab, then the Disks sub-tab, and click Upload. Select the required file, enter the disk's virtual size, then click OK. Note that ovirt-imageio-proxy needs to be installed on the Manager for this feature to work.

BZ#1289551

With this update, the new Anaconda installer has added the ability to identify individual disks. This change was required to ensure the correct installation decisions are made.

BZ#1195123

> Red Hat Virtualization Manager runs on Red Hat Enterprise Linux 7 with
> Red Hat JBoss Enterprise Application Platform 7.0.

BZ#864010

> With this update, the swap partition can be placed on a separate device.
> This allows a user to put the swap partition on a device suitable for
> this specific load, which differs from the load on the root filesystem.

BZ#1209795

> This is to help avoid the problem of MAC collision in the user's LAN.
> Such a problem could appear immediately or later, when two active NICs
> with the same problematic MAC could appear in the user's LAN, one on the
> imported virtual machine, and another one on any other network appliance
> that isn't managed by the this Red Hat Virtualization instance.

BZ#1164300

> With this release, the user's browser setting for saving user names and
> passwords will be used for the User Portal login screen.

3.1.2. Technology Preview

The items listed in this section are provided as Technology Previews. For further information on the
scope of Technology Preview status, and the associated support implications, refer to
https://access.redhat.com/support/offerings/techpreview/.

BZ#1301111

> This update provides support for the Q35-based machine type supported by
> QEMU, it is an alternative to older i440fx chipset. Compared to i440fx,
> Q35 allows for better support of PCI-e passthrough as it has a proper
> PCI-e bus[1]. One of the differences is also that the Q35 does not use
> IDE cdrom, but prefers SATA bus. The reason for that is the lack of IDE.
>
> [1] http://wiki.qemu.org/Features/Q35

BZ#1347754

> A mobile client for Red Hat Enterprise Virtualization which is
> compatible Red Hat Enterprise Virtualization 3.5 onwards, is available
> for Android devices.

3.1.3. Release Notes

This section outlines important details about the release, including recommended practices and notable changes to Red Hat Virtualization. You must take this information into account to ensure the best possible outcomes for your deployment.

BZ#1285432

```
A new UI plugin API function `showAlert` allows UI plugins to display
global alert boxes in the top-center of the Administration portal.

This is useful to inform users of important events. The `showAlert`
function supports different alert types (danger, warning, success,
info), and can auto-hide after given time period.
```

BZ#1353441

```
Previously, the Manager's CA certificate could be downloaded from:
http://[engine-fqdn]/ca.crt. With this update, the URL to download the
CA certificate has changed to: http://[engine-fqdn]/ovirt-
engine/services/pki-resource?resource=ca-certificate&format=X509-PEM-CA.
Existing clients that use the old URL must be updated to use the new
one.
```

3.1.4. Known Issues

These known issues exist in Red Hat Virtualization at this time:

BZ#1211964

```
A disk label may still appear on a disk after removing the disk
partitions. This can cause empty disks without any partitions to be
shown as locked in the Storage Devices sub-tab under Hosts. This
prevents users from creating a gluster brick from this disk.

To workaround this issue, use the 'dd' command to clear the disks:

dd if=/dev/zero of=<disk> bs=512 count=1
```

BZ#1364126

```
If a user configures Red Hat Virtualization Host (RHVH) networking using
Cockpit and leaves the Cockpit browser tab open then adds RHVH to the
Red Hat Virtualization Manager the DNS configuration of the host is
reset. The user must ensure that they log out and close the Cockpit
browser tab before adding RHVH to the Red Hat Virtualization Manager.
This means that the DNS configuration will be configured as it was
previously through RHVH.
```

BZ#1367669

```
Networking support is disabled in Cockpit and networking can not be
configured through Cockpit. Users can drop to the shell and manually
write ifcfg files to configure networking.
```

3.1.5. Deprecated Functionality

The items in this section are either no longer supported or will no longer be supported in a future release

BZ#1314790

> The ovirt-host-deploy-offline package will no longer be available in Red Hat Virtualization 4.0

BZ#1236976

> The user interface (UI) code is now aligned with the Manager's SSO infrastructure by dropping reliance on the REST webapp's HTTP session mechanism in favor of using SSO tokens.
>
> This impacts, and potentially breaks all UI plugins because the "RestApiSessionAcquired" callback has been removed.
>
> From now on, UI plugins should use the new "api.ssoToken" function when authenticating Manager (e.g. REST API) requests:
>
> ```
>   var xhr = new XMLHttpRequest();
>   xhr.open('GET', 'http://example.com/ovirt-engine/api');
>   xhr.setRequestHeader('Authorization', 'Bearer ' + api.ssoToken());
>   xhr.setRequestHeader('Accept', 'application/json');
>   xhr.addEventListener('load', function () {
>     // response loaded OK, parse JSON data
>     var data = JSON.parse(this.responseText);
>   });
>   xhr.send();
> ```
>
> The UI plugins no longer need to use session-specific request headers like "Prefer:persistent-auth" and "JSESSIONID:xxx", which simplifies their code.

BZ#1308988

> The Red Hat Access plugin for Red Hat Enterprise Virtualization has been deprecated and converted to a page that points to the product documentation. The questions regarding proxy configuration for the plugin when running engine-setup has been removed.

BZ#1320515

> The "/vms/<vmid>/move" API has been removed after being deprecated in Red Hat Enterprise Virtualization 3.1.

BZ#1306637

> The ovirt-image-uploader tool has been deprecated in Red Hat Virtualization 4.0, and will be removed in Red Hat Virtualization 4.1.

BZ#1300328

Removed data center statistic tables and views which provided
meaningless status statistics.

BZ#1255230

Additional self-hosted engine hosts can only be added via the
Administration Portal, and can no longer be added by running 'hosted-
engine --deploy' on the host.

BZ#1316560

The Spice plug-in is not supported in Red Hat Virtualization 4.0. The
'Native' spice connection should be used as a replacement.

If 'Plugin' is set as the default for Spice connections by user (via
engine-config), it is automatically switched to 'Native' by calling
engine-setup during upgrade.

BZ#1337055

The Legacy USB option has been deprecated and will be removed in the
next Red Hat Enterprise Virtualization version. The functionality has
been superseded by "Native" with the UsbDk drivers (available since Red
Hat Enterprise Virtualization 3.6).

BZ#1324885

The Spice Internet Explorer plug-in is not supported in Red Hat
Virtualization 4.0.
The 'Native' spice connection is suggested as a replacement.
Installation on the client machine is done via MSI installers, and will
not be available via CAB files.

It is recommended that users of the Spice plug-in uninstall the virt-
viewer and the Spice Internet Explorer plug-in before installing via
MSI.

BZ#1323605

The collection from the Manager view dwh_disk_vm_map_history_view was
replaced by the collection from dwh_vm_device_history_view on Red Hat
Enterprise Virtualization 3.1, but was not removed to ensure legacy
compatibility.

In Red Hat Virtualization 4.0, legacy compatibility will be for Red Hat
Enterprise Virtualization 3.6 only. Therefore, the following has now
been removed:
- The collection of disks_vm_map.
- disks_vm_map table from the history database.
- dwh_vm_disk_configuration_history_view from the Manager database.

BZ#1326421

Red Hat Virtualization Manager 4.0 does not support data center or cluster compatibility levels 3.5 or lower. A data center or cluster compatibility version of 3.5 or lower will prevent an upgrade to Red Hat Virtualization 4.0.

BZ#1349349

Hosts in Red Hat Virtualization 4.0 are only supported with SELinux enabled.

BZ#1328916

The usbclerk service has been dropped from this release. The usbdk driver is now supported instead, and it supports more devices than WinUSB, which was installed by usbclerk. The usbdk driver is installed via the MSI installer.

3.2. RED HAT VIRTUALIZATION 4.0 BATCH UPDATE 1 (OVIRT-4.0.4)

3.2.1. Enhancements

This release of Red Hat Virtualization features the following enhancements:

BZ#981626

This feature adds a new parameter to the VDSM config file: "discard_enable", which is false by default.

When changed to true for a specific host (in /etc/vdsm/vdsm.conf), for each disk image/snapshot that is going to be removed, that host will issue a "blkdiscard" call right before removing it in order to free the used space from the thinly-provisioned LUN that the storage domain is built on.

If the underline storage does not support discard operations, the command will fail with a log but will not break the disk/snapshot removal.

BZ#1095615

With this release, Red Hat Virtualization now supports CephFS as a POSIX storage domain.

BZ#1201482

To properly support disk hot plug and disk QoS changes for a running virtual machine, MoM is updated and now reads the IO QoS settings from metadata and sets the respective ioTune limits to a running virtual machine's disk.

BZ#1344020

> Previously, the host upgrade manager in the Administration Portal only
> checked and applied updates for the vdsm and vdsm-cli packages. Other
> packages had to be updated manually using "yum update". With this
> release, the list of packages that the host upgrade manager checks and
> updates has been extended to include ioprocess, mom, libvirt-client,
> libvirt-daemon-config-nwfilter, libvirt-daemon-kvm, libvirt-lock-
> sanlock, libvirt-python, lvm2, ovirt-imageio-common, ovirt-imageio-
> daemon, ovirt-vmconsole, ovirt-vmconsole-host, python-ioprocess, qemu-
> kvm, qemu-img, sanlock, along with vdsm and vdsm-cli.

BZ#1362196

> A new configuration variable called ENGINE_SSO_INSTALLED_ON_ENGINE_HOST
> has been added. This flag can be used to specify if the SSO service is
> installed on the same host as the engine or installed on a different
> host. If this flag is set to true, the URL and port used to access the
> Manager is used to redirect to the login page. If this flag is set to
> false, the value set in ENGINE_SSO_AUTH_URL is used to redirect user to
> the login page.

BZ#1302657

> With this update, the default VNC graphics in Red Hat Virtualization 4.0
> is VGA. Imported virtual machines with VNC/Cirrus, and originating in
> previous compatibility versions, are automatically upgraded to VNC/VGA.
> However, QXL is still the preferred default graphics, if the guest
> operating system supports it.

3.2.2. Deprecated Functionality

The items in this section are either no longer supported or will no longer be supported in a future release

BZ#1318626

> Red Hat Virtualization will drop support for export domains in future
> versions.

3.3. RED HAT VIRTUALIZATION 4.0 BATCH UPDATE 2 (OVIRT-4.0.5)

3.3.1. Enhancements

This release of Red Hat Virtualization features the following enhancements:

BZ#1373968

> Previously, with the release of OpenStack Liberty the Open vSwitch agent
> ini file location changed. This caused host deployment to fail when the
> latest releases of OpenStack were used. Now, support for Liberty and

newer releases of OpenStack has been added and host deployment no longer fails.

BZ#1373111

Previously, the current status of account lock was not displayed directly when showing user details using ovirt-aaa-jdbc-tool. The 'Account Unlocked At' date was compared with the current date and if 'Account Unlocked At' was set to future time the user account was locked. Now, the current status of account lock is displayed correctly. An "Account Locked' option with a boolean value has been added to the user details displayed by ovirt-aaa-jdbc-tools.

```
For example:
# ovirt-aaa-jdbc-tool user show user1
-- User user1(de506247-d1a1-4f16-94f3-0b83b0b236b2) --
  Account Disabled: false
  Account Locked: true
  Account Unlocked At: 2016-09-09 11:42:25Z
```

BZ#1379559

The latest virtio-win release which includes Windows 10 drivers is now required by Red Hat Virtualization Manager to ensure it will be upgraded.

BZ#1346847

With this update, the ability to import virtual machines from VMware, VMware OVA, XEN, and KVM via the Red Hat Virtualization REST API has been added. Previously, this was only possible using the web UI.

BZ#1388083

Red Hat Enterprise Linux 6 used mod_auth_kerb to setup Kerberos SSO, but this module has been deprecated; mod_auth_gssapi is used instead. This update ensures mod_auth_gssapi and mod_session is used, and that example configurations have been updated.

For existing customers, mod_auth_kerb will continue to work with previous versions of Red Hat Enterprise Virtualization.

3.3.2. Known Issues

These known issues exist in Red Hat Virtualization at this time:

BZ#1384319

A bug in oVirt Live ISO creation causes wrong SELinux labeling. Within the ISO, some files get the wrong context upon boot.

> This can be avoided by running oVirt Live in permissive mode; you can still use oVirt Live, but be aware that SELinux is not enforcing.

BZ#1351213

> In bootstrap mode, prior to having the self-hosted engine storage domain imported, the Manager tells VDSM to disconnect the iSCSI target prior to attaching the master domain. The Manager doesn't know that hosted_storage is using the same target, as it is not in the database yet.
>
> As a result, VDSM disconnects the target, the Manager virtual machine loses connectivity to its disk, sanlock times out, and the Manager virtual machine is restarted.
>
> To aviod this, do not use the same ISCSI target for the master domain and the hosted_storage domain.

BZ#1369086

> Due to changes in devices within PPC64LE QEMU binary, it is not possible to live migrate a virtual machine started on Red Hat Enterprise Linux 7.2 to a Red Hat Enterprise Linux 7.3 host; the destination QEMU will reject the request. Such guests must be shut down and restarted on the destination host.
>
> Virtual machines can be live migrated between hosts of the same Red Hat Enterprise Linux version.
>
> Virtual machines cannot be live migrated from a Red Hat Enterprise Linux 7.2 host to a Red Hat Enterprise Linux 7.3 host, or from a Red Hat Enterprise Linux 7.3 host to a Red Hat Enterprise Linux 7.2 host; the virtual machine must be shut down before migration.

BZ#1343938

> The Disk Alignment feature is unavailable for PPC.

3.4. RED HAT VIRTUALIZATION 4.0 BATCH UPDATE 3 (OVIRT-4.0.6)

3.4.1. Enhancements

This release of Red Hat Virtualization features the following enhancements:

BZ#1405963

> With this update, the vioscsi.sys file is now compatible with Microsoft Cluster Services, which enables the Windows virtio-scsi driver to support Windows Server Failover Clustering (WSFC) using shared storage. As a result, vioscsi.sys can pass all tests in the "Validate a Configuration" process.

3.4.2. Known Issues

These known issues exist in Red Hat Virtualization at this time:

BZ#1351213

> In bootstrap mode, prior to having the self-hosted engine storage domain imported, the Manager tells VDSM to disconnect the iSCSI target prior to attaching the master domain. The Manager doesn't know that hosted_storage is using the same target, as it is not in the database yet.
>
> As a result, VDSM disconnects the target, the Manager virtual machine loses connectivity to its disk, sanlock times out, and the Manager virtual machine is restarted.
>
> To avoid this, do not use the same ISCSI target for the master domain and the hosted_storage domain.

BZ#1343938

> The Disk Alignment feature is unavailable for PPC.