Oracle® Linux Virtualization Manager

Release Notes for Release 4.2.8

F15084-02
September 2019

Oracle Legal Notices

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About this document

This document is part of the documentation for Oracle Linux Virtualization Manager, which is available at: http://docs.oracle.com/cd/F15085_01

The documentation consists of the following items:

Oracle Linux Virtualization Manager Release Notes

This document provides a summary of the new features, changes, fixed bugs, and known issues in the Oracle Linux Virtualization Manager. It contains last-minute information, which may not be included in the main body of documentation, and information on Oracle Linux Virtualization Manager system requirements.
Read this document before you install your environment.

Oracle Linux Virtualization Manager Installation Guide

This document provides an overview of the Oracle Linux Virtualization Manager and explains how to install the Oracle Linux Virtualization Manager environment, including important information, such as system requirements, for planning your virtualization environment.

Oracle Linux Virtualization Manager Getting Started Guide

This document explains how to get started with the Oracle Linux Virtualization Manager. It provides an example scenario that covers some of the basic procedures for setting up the environment, such as, adding hosts, adding storage, creating virtual machines, and so on.

Document generated on: 2019-09-26 (revision: 605)

Chapter 1 Introduction

Oracle Linux Virtualization Manager is a complete solution for managing the compute, network and storage resources, and the virtual machines, in enterprise-class virtualization environments.

Oracle Linux is the operating system on which Oracle Linux Virtualization Manager is installed. Oracle Linux is free to download, and includes all Oracle Linux patches and updates, under the same licensing restrictions as Oracle Linux.

The packages needed to install the Oracle Linux Virtualization Manager are available from the Oracle Linux yum server at http://yum.oracle.com, and from the Oracle Unbreakable Linux Network (ULN) at https://linux.oracle.com.

This release is based on the oVirt 4.2.8 release. This document is in addition to the upstream oVirt 4.2.8 Release Notes, available at:

https://ovirt.org/release/4.2.8/

In addition to the Oracle Linux Virtualization Manager documentation, the latest oVirt upstream documentation is available at:

https://ovirt.org/documentation/

Chapter 2 System Requirements and Scalability Limits

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The following are the system requirements and scalability limits for Oracle Linux Virtualization Manager Release 4.2.8.

Manager Host Requirements

The following are the minimum system requirements for Oracle Linux Virtualization Manager hosts:

- Oracle Linux 7 Update 6
  Select **Minimal Install** as the base environment for the installation.
- Unbreakable Enterprise Kernel Release 5 Update 1 or later
- 64-bit dual-core CPU
  Recommended: 64-bit quad core or greater CPU
- 4 GB RAM
  Recommended: 16 GB or greater
- 1 network interface card (NIC) with bandwidth of at least 1 Gbps
  Recommended: 2 or more NICs with bandwidth of at least 1 Gbps
- 25 GB local writable hard disk
  Recommended: 50 GB or greater

For information about x86-based servers that are certified for Oracle Linux with UEK, see the *Hardware Certification List for Oracle Linux and Oracle VM* at https://linux.oracle.com/hardware-certifications.

For more details about system requirements and known issues with installation, see:

- The *Oracle Linux 7 Release Notes* for your release at https://docs.oracle.com/en/operating-systems/oracle-linux/7/relnotes7.0/index.html.
- The *Unbreakable Enterprise Kernel Release 5 Release Notes* for your release at https://docs.oracle.com/en/operating-systems/uek/.
- The *Oracle Linux 7 Installation Guide* at https://docs.oracle.com/en/operating-systems/oracle-linux/7/install/.

Important

Oracle does not support Oracle Linux Virtualization Manager on systems where the `ol7_preview`, `ol7_developer`, `ol7_developer_kvm_utils`, or `ol7_developer_EPEL` repositories are enabled, or where software from these repositories is currently installed on the systems where the Manager will run. Even if you follow the instructions in this document, you may render your platform unsupported if these repositories or channels are enabled or software from these channels or repositories is installed on your system.

KVM Compute Host Requirements

The following are the minimum system requirements for Oracle Linux KVM compute hosts:

- Oracle Linux 7 Update 6 or later
  Select **Minimal Install** as the base environment for the installation.
- Unbreakable Enterprise Kernel Release 5 Update 1 or later
- 64-bit dual-core CPU
  Recommended: Multiple CPUs

  The CPUs must support either the Intel VT-x or the AMD AMD-V hardware virtualization extensions and the extensions must be enabled in the host's BIOS. The CPUs must also support the No eXecute flag (NX).
- 2 GB RAM
  Maximum Tested: 2 TB

  The amount of RAM required varies depending on guest operating system requirements, guest application requirements, and guest memory activity and usage.
- 1 network interface card (NIC) with bandwidth of at least 1 Gbps
  Recommended: 2 or more NICs with bandwidth of at least 1 Gbps

  Multiple NICs are recommended so that NICs can be dedicated for network intensive activities, such as virtual machine migration.
- 45 GB local writable hard disk allocated as follows:

Allocation	Size
`/` (root)	6 GB
`/home`	1 GB
`/tmp`	1 GB
`/boot`	1 GB
`/var`	15 GB
`/var/log`	8 GB
`/var/log/audit`	2 GB
swap	1 GB

  Anaconda reserves 20% of the thin pool size within the volume group for future metadata expansion. This is to prevent an out-of-the-box configuration from running out of space under normal usage conditions. Oracle recommend using the default allocations which use more

For information about x86-based servers that are certified for Oracle Linux with UEK, see the *Hardware Certification List for Oracle Linux and Oracle VM* at https://linux.oracle.com/hardware-certifications.

Do not install any third-party watchdogs on your Oracle Linux KVM compute hosts, as they can interfere with the watchdog daemon provided by VDSM.

Do not install any other applications on the Oracle Linux KVM compute hosts as they may interfere with the operation of the KVM hypervisor.

For more details about system requirements and known issues with installation, see:

- The *Oracle Linux 7 Release Notes* for your release at https://docs.oracle.com/en/operating-systems/oracle-linux/7/relnotes7.0/index.html.

- The *Unbreakable Enterprise Kernel Release 5 Release Notes* for your release at https://docs.oracle.com/en/operating-systems/uek/.
- The *Oracle Linux 7 Installation Guide* at https://docs.oracle.com/en/operating-systems/oracle-linux/7/install/.

Storage Requirements

Before you can create virtual machines, you must provision and attach storage to a data center. You can use Network File System (NFS), Internet Small Computer System Interface (iSCSI), or Fibre Channel Protocol (FCP) storage. You can also configure local storage attached directly to hosts.

Storage devices in Oracle Linux Virtualization Manager are refered to as **data domains**, which are used to store virtual hard disks, snapshots, ISO files, and templates. Every data center must have at least one data domain. Data domains cannot be shared between data centers.

For more information, see Storage.

Scalability Limits

The following table shows the limits for the Oracle Linux Virtualization Manager host, Oracle Linux KVM hosts, networks, virtual machines, and storage.

Table 2.1 Scalability Limits

Component	Maximum
Number of logical CPUs on a Oracle Linux 7 host	384
Amount of memory on a Oracle Linux 7 host	2 TB
Number of servers managed by one Oracle Linux Virtualization Manager	64
Number of VLANs managed by one Oracle Linux Virtualization Manager	1024
Number of concurrently running VMs	5000
Number of concurrently running VMs on a single Oracle Linux 7 host	600, depending on the perfomance of the host
Number of virtual CPUs in a VM	256
Amount of virtual RAM in a VM	2 TB
Number of LUNs attached to same number of VMs	300
Number of SAN data domains attached to a single data center	100

Guest Operating System Requirements

The following guest operating systems are tested with Oracle Linux Virtualization Manager.

Linux Guest Operating Systems

- Oracle Linux 7 Update 6 64-bit
- Oracle Linux 6 Update 10 32-bit or 64-bit, `cloud-init` is not available for this OS

- Oracle Linux 5 Update 11 64-bit, `cloud-init` is not available for this OS
- CentOS 7.1804 64-bit
- CentOS 6.10 32-bit or 64-bit, `cloud-init` is not available for this operating system
- Red Hat Enterprise Linux 7 Update 6 64-bit
- Red Hat Enterprise Linux 6 Update 10 32-bit or 64-bit, `cloud-init` is not available for this OS
- Red Hat Enterprise Linux 5 Update 11 32-bit or 64-bit, `cloud-init` is not available for this OS

You can download Oracle Linux ISO images and disk images from Oracle Software Delivery Cloud: https://edelivery.oracle.com/linux.

Microsoft Windows Guest Operating Systems

- Microsoft Windows Server 2016 64-bit
- Microsoft Windows Server 2012 R2 64-bit
- Microsoft Windows Server 2012 64-bit
- Microsoft Windows Server 2008 R2 SP1 64-bit
- Microsoft Windows Server 2008 SP1 32-bit or 64-bit
- Microsoft Windows 10 32-bit or 64-bit
- Microsoft Windows 8.1 32-bit or 64-bit
- Microsoft Windows 8 32-bit or 64-bit
- Microsoft Windows 7 SP1 32-bit or 64-bit

Oracle recommends that you install the Oracle VirtIO Drivers for Microsoft Windows in Windows guest OSes for improved performance for network and block (disk) devices and to resolve common issues. The drivers are paravirtualized drivers for Microsoft Windows guests running on Oracle Linux KVM hypervisors. For instructions on how to obtain and install the drivers, see Oracle VirtIO Drivers for Microsoft Windows in the *Oracle Linux 7 Administration Guide*.

Chapter 3 Technology Preview

The following features are currently still under development, but are made available for testing and evaluation purposes:

Oracle Linux Virtualization Manager

- Using the oVirt Engine Appliance (available in `ovirt-engine-appliance` package) to deploy Oracle Linux Virtualization Manager as a virtual machine (Self-hosted Engine).
- Creating virtualization hosts using the oVirt Node ISO image (also known as a thin host).
- Using the Ansible roles provided in the `ovirt-ansible-roles` package to automate configuring Oracle Linux Virtualization Manager.
- Installing (or migrating) the Oracle Linux Virtualization Manager database to a separate host.
- Installing (or migrating) the Data Warehouse service and history database to a separate host.
- Using the full sampling scale for Data Warehouse.
- Migrating the Dashboard to a separate host.
- Using custom user interface plugins to provide additional functionality to the Admin Portal.
- Using external providers to provide external reources to Oracle Linux Virtualization Manager.
- Using the `ovirt-engine-rename` command to update the fully qualified DNS name of Oracle Linux Virtualization Manager (the oVirt Engine Rename Tool).
- Using the `engine-config` command to edit the global configuration settings for Oracle Linux Virtualization Manager (the Engine Configuration Tool).
- Using the USB Filter Editor to create the `usbfilter.txt` policy file for filtering USB devices on Windows client devices.
- Using the `rhv-log-collector-analyzer` command to analyze and report on the Oracle Linux Virtualization Manager environment (the RHV Log Collector Analyzer tool).
- Using quotas and service level agreements to control access to resources.
- Using custom hooks to extend the functionality of the host agent (VDSM).

  Configuring additional internal local user domains for Oracle Linux Virtualization Manager.
- Using an external directory server apart from Active Directory and OpenLDAP Standard Schema (options 3 and 9 when you use the `ovirt-engine-extension-aaa-ldap-setup` command).
- Enabling users to log in automatically to the Administration Portal or VM Portal using the credentials obtained from a Kerberos or LDAP server (single sign-on).
- Using the SPICE Proxy to connect SPICE Clients to virtual machines when the SPICE Clients are outside the network that connects the hypervisors.
- Using the moVirt Android client for the Oracle Linux Virtualization Manager.

Compute

- Using data center or cluster compatibility versions other than version 4.2.

- Using CPU quality of service (QoS) entries to control the amount processing capability virtual machines can access on hosts.
- Using trusted compute pools to deploy virtual machines on clusters that use Intel Trusted Execution Technology (Intel TXT).
- Importing an existing Gluster storage cluster.
- Managing hosts, and managing and applying errata for hosts, using Spacewalk for Oracle Linux (or other system management systems such as Foreman or Satellite).
- Attaching host GPUs directly to virtual machines (GPU passthrough).

Network

- Configuring host network interfaces to use `ethtool` or Fibre Channel over Ethernet (FCoE) custom properties.
- Attaching PCI network cards directly to virtual machines (PCI passthrough or SR-IOV).
- Creating network bonds that use bond modes 0 (round-robin policy), 2 (XOR policy), 3 (broadcast policy), and 5 (adaptive transmit load balancing policy).
- Using host quality of service entries that to control the bandwidth a logical network uses on a physical interface.
- Using virtual machine quality of service entries to control to the input/output of VNICs.
- Using external network providers, including the Open Virtual network (OVN) provider.
- Using network security groups provided by the OpenStack Neutron service.
- Managing networks and interfaces using the Cisco Unified Computing System (UCS).

Storage

- Using a POSIX-compliant file system as a data storage domain.
- Using Gluster storage as a data storage domain.
- Using the wipe after delete functionality to zero out used blocks in virtual disks.
- Using storage quality of service (QoS) entries to control the maximum throughput and I/O operations for virtual disks in a storage domain.
- Using disk profiles to define the maximum throughput and I/O for virtual disks in a storage domain.

Virtual Machines (Guests)

- Importing virtual machines and images from a Xen host, a VMware external provider, or an OpenStack Image (Glance) external provider.
- Using `sysprep` to seal and automate the initialization of Windows guests.
- Installing guest additions automatically in Windows guests using the Application Provisioning Tool (APT).
- Enabling users to log in automatically to virtual machines using their Oracle Linux Virtualization Manager credentials (single sign-on).

- Enabling users to log in automatically to virtual machines using the credentials obtained from a Kerberos or LDAP server (single sign-on).
- Attaching host devices directly to virtual machines, including SCSI devices such as disks, PCI devices such as NICs and GPUs, and USB devices such as webcams (passthrough or SR-IOV).
- Authenticating to virtual machines using smart cards on client devices (smart card authentication).
- Using multiple displays with virtual machines.
- Enabling remote access to USB devices on Windows client devices using the `usbdk` driver (USB redirection).
- Configuring virtual NUMA nodes on virtual machines and pinning them to NUMA nodes on a physical host.
- Managing and applying errata for virtual machines using Spacewalk for Oracle Linux (or other system management systems such as Foreman or Satellite).
- Enabling SAP monitoring in virtual machines through the Administration Portal.

Chapter 4 Deprecated Features

The following features are marked as deprecated in the upstream release and may be removed in a future release:

- **Export Storage Domains.** Export domains are temporary storage repositories that are used to copy and move images between data centers and Linux Virtualization Manager environments. Use data domains instead.
- **ISO Storage Domains.** ISO domains store ISO files which you can attach to virtual machines and use to install and boot operating systems and applications. Use data domains instead.
- **ISO Uploader Tool.** The ISO Uploader Tool (`engine-iso-uploader`) is a command-line tool for uploading ISO images to an ISO storage domain. Use the Administration Portal , or the REST API, to upload ISO images to data domains instead.
- **ovirt-shell Command Line Interface.** The `ovirt-shell` command line interface has not been updated to support any new features added to the upstream release since version 4.0. For automation purposes, either use the REST API or another tool such as Ansible.
- **USB Clerk.** USB Clerk is a service that is able to install and uninstall USB drivers in Windows virtual machines. Use the `usbdk` driver instead.
- **FAILED_QUERIES_NOTIFICATION_RECIPIENTS Variable.** In the event notifications configuration file (`/usr/share/ovirt-engine/services/ovirt-engine-notifier/ovirt-engine-notifier.conf`), the `FAILED_QUERIES_NOTIFICATION_RECIPIENTS` variable is deprecated. Use the `FILTER` variable instead.

Chapter 5 Known Issues

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In addition to the known issues for Oracle Linux Virtualization Manager Release 4.2.8 listed here, you should also check the following documents:

- The upstream *oVirt 4.2.8 Release Notes*: https://ovirt.org/release/4.2.8/
- *Oracle Linux 7 Release Notes*: https://docs.oracle.com/cd/E52668_01/
- *Oracle Unbreakable Enterprise Kernel Release 5 Release Notes*: https://docs.oracle.com/cd/E93554_01/

Oracle Linux Virtualization Manager Issues

Unable to Log in to Oracle Linux Virtualization Manager Using the Host IP Address

If you access Oracle Linux Virtualization Manager using the host IP address, you see the following message and you are not able to log in:

```
The redirection URI for client is not registered.
```

Solution: Only use the fully qualified domain name to access Oracle Linux Virtualization Manager.

Bug: 29062264

The Log Collector Tool Is Not Available on the Manager Host

The log collector tool (`ovirt-log-collector`) is not installed on the Manager host when you install Oracle Linux Virtualization Manager. You must install it separately.

Solution: Install the log collector tool on the Manager host:

```
# yum install ovirt-log-collector
```

Bug: 29167472

Setup Scripts for Active Domain Restrict Users to Verify for Root AD Forest and Not a Specific Subdomain

When attempting to configure authentication using the `ovirt-engine-extension-aaa-ldap` extension, you can add only the forest domain for authentication. When attempting to use the subdomain, you see the following warning and error messages:

```
[ INFO  ] Resolving Global Catalog SRV record for subdomain1.mydomain.domain.local
[WARNING] Cannot resolve Global Catalog SRV record for subdomain1.mydomain.domain.local.
Please check you have entered correct Active Directory forest name and check that forest
is resolvable by your system DNS servers
[ ERROR ] Failed to execute stage 'Environment customization': Active Directory forest is
not resolvable, please make sure you've entered correct forest name. If for some reason you
can't use forest and you need some special configuration instead, please refer to examples
directory provided by ovirt-engine-extension-aaa-ldap package.
```

Solution: Issue also occurs in the upstream oVirt release. There is no workaround for this behavior.

Bug: 29182338

Active Directory Profile Missing After Restoring the Manager

When restoring from a backup to a fresh installation of the Oracle Linux Virtualization Manager, the Active Directory profile is missing.

Solution: Perform the following steps:

1. Reinstall the `ovirt-engine-extension-aaa-ldap-setup` package:

   ```
   # yum install ovirt-engine-extension-aaa-ldap-setup
   ```

2. Restart the Manager.

   ```
   # service ovirt-engine restart
   ```

3. Add the IP address of the Active Directory to the `/etc/host` and `/etc/resolve.conf` files, respectively.

Bug: 29410228

Removed Storage Domains Are Still Shown in the Dashboard

After you remove a storage domain, it is still shown in the Dashboard.

Solution: There is no workaround for this behavior.

Bug: 29494264

Unable to Set up a Connection to an OpenLDAP Directory

When you use `ovirt-engine-extension-aaa-ldap` extension to set up a connection to an OpenLDAP server (option 9 - OpenLDAP Standard Schema), the setup fails because you are unable to authenticate to the directory server.

Solution: There is no workaround for this behavior. Issue also occurs in the upstream oVirt release.

Bug: 29525988

Global Configuration Issues

VM Started on KVM Host Whose VM Count Exceeds the HighVMCount Property Set for an Evenly_Distributed Scheduling Policy

A VM started on a KVM host whose VM count exceeded the number of VMs set in the **HighVMCount** property for an Evenly_Distributed scheduling policy. Based on the scheduling policy configured in this scenario, load balancing should have been triggered and this VM should have started on another KVM host in the cluster.

Solution: There is no workaround for this behavior.

Bug: 29168788

VM Can Be Started on a KVM Host Whose CPU Utilization Exceeds the HighUtilization Property Set for an Evenly_Distributed Scheduling Policy

In a 3-host cluster where only one host is active (the other two hosts are in `Maintenance` mode), 5 VMs are created by importing OVA files. An Evenly_Distributed scheduling policy is configured with the **HighUtlilization** property set to **50**. When the CPU utilization exceed 50% on the KVM host and a VM is started, the VM should fail to startup; however, the VM is starting up on the KVM host in this scenario.

Solution: There is no workaround for this behavior.

Bug: 29171712

CPU Load Not Evenly Load Balanced for an Evenly_Distributed Scheduling Policy

In a 3-host cluster where an Evenly_Distributed scheduling policy is configured with the **HighUtlilization** property set to **50** and the **CPUOverCommitDuration** set to **1**, CPU load did not evenly distribute across the KVM hosts in the cluster. In this scenario, VMs did not migrate that should have been migrated due to load balancing based on the configured scheduling policy.

Solution: There is no workaround for this behavior.

Bug: 29172270

VM Migration Priority Not Working As Configured

In a 2-host cluster with one of the KVM hosts running 4 Oracle Linux VMs and 6 Microsoft Windows VMs, the Microsoft Windows VMs are set to have a low priority for migration while the Oracle Linux VMs are set to have a high priority. The host is then put into `Maintenance` mode, which triggers automatic migration. When monitoring the migration operations on the **Virtual Machines** pane, some of the Microsoft Windows VMs are observed completing migration ahead of the Oracle Linux VMs.

Solution: There is no workaround for this behavior.

Bug: 29401055

VM Can Be Started on KVM Host with CPU Utilization That Exceeds the HighUtilization Property Setting for an Power_Savings Scheduling Policy

A VM can be started on a KVM host whose CPU utilization exceeds the value specified for the **HighUtilization** property setting of a Power_Savings scheduling policy.

Solution: There is no workaround for this behavior.

Bug: 29406963

KVM Host Not Shutdown When the EnableAutomaticHostPowerManagement Property Is Enabled for an Power_Savings Scheduling Policy

In a cluster with 3 running KVM hosts and no VMs running, a Power_Savings scheduling policy is configured with the **EnableAutomaticHostPowerManagement** property set to **true**. After some time, two of the hosts are set to `Maintenance` mode, but only one of the hosts is ever shutdown while the other host remains in `Maintenance` mode. This host should have also been shutdown based on the scheduling policy configured in this scenario.

Solution: There is no workaround for this behavior.

Bug: 29412616

Power_Saving Scheduling Policy Not Shutting Down Any of the KVM Hosts in a Cluster with CPU Utilization Less Than 20%

In a cluster with 3 running KVM hosts and with 4 running VMs, a Power_Savings scheduling policy is configured with the **EnableAutomaticHostPowerManagement** property set to **true** when the CPU and memory is found to be low on the KVM hosts. After this policy is set, the KVM hosts are not being

shutdown and the VMs are not being migrated, even though the CPU utilization is less than 20%. Given the configured Power_Savings scheduling policy for this scenario, some of the hosts should have been shutdown.

Solution: There is no workaround for this behavior.

Bug: 29418541

VM Not Migrating After Exceeding the MaxFreeMemoryForOverUtilized Property Value for a Power_Savings Scheduling Policy

A VM is observed not migrating to another KVM host in a cluster that has enough free memory when the VM exceeds the value set for the **MaxFreeMemoryForOverUtilized** property of a Power_Savings scheduling policy.

Solution: There is no workaround for this behavior.

Bug: 29419399

MinFreeMemoryForUnderUtilized Property Not Working for Evenly_Distributed and Power_Savings Scheduling Policies

In a cluster with 3 active hosts where there are 4 running VMs (3 VMs running on one of the hosts and 1 VM running on another one of the hosts), an Evenly_Distributed policy is configured with a value set for the **MinFreeMemoryForUnderUtilized** property. The VMs in this environment then exceed the **MinFreeMemoryForUnderUtilized** property value set for the policy, but neither the KVM hosts are shutdown nor are the VMs migrated in this scenario.

The policy is then changed to a Power_Savings scheduling policy and the **MinFreeMemoryForUnderUtilized** property is changed to the same value as previously set for the Evenly_Distributed scheduling policy, and again it is observed that neither the KVM hosts are shutdown nor the VMs are migrated when this property value is exceeded.

Solution: There is no workaround for this behavior.

Bug: 29425062

MacPoolAdmin Role Is Available Only for System-Level Users

Although the **MacPoolAdmin** role can be assigned to users of different levels (for example, **System**, **Data Center**, **Cluster**, and so on), only users who are given this role at the **System** level are actually able to perform **MacPoolAdmin** tasks on the Oracle Linux Virtualization Manager, such as creating, editing, or deleting MAC address pools.

Solution: If a user requires **MacPoolAdmin** privileges, ensure that the user is assigned the **MacPoolAdmin** role at the **System** level on the Manager.

Bug: 29534106

Compute Issues

KVM Host Under the Control of a Manager Host Can Be Accidentally Added to Another Manager Host Without Validation of Its Current State

When an KVM host is already deployed on a Manager host, you can add this KVM host to another Manager host, causing this Manager host to take the KVM host away from the original owning Manager host. Adding a KVM host that is already under the control of a Manager host is highly not recommended, but it can be done by accident. In this event, the KVM host that resides on the original owning Manager host changes to a status of `Nonreponsive` and all VMs running on it change to a status of `Unknown`. When you attempt to put the nonresponsive host into `Maintenance` mode, the following error message is generated:

```
Error while executing action: Cannot switch Host to Maintenance mode.
Host still has running VMs on it and is in Non Responsive state.
```

Solution: For information about the workaround for this issue, refer to the related issue Removing a Stolen, Defunct, Nonresponsive, or Destroyed KVM Host .

Bug: 29127349

Duplicate KVM Host Cannot Be Moved into Maintenance Mode After Host Addition Fails

If you add a KVM compute host that is running virtual machines to the Manager host and you attempt to add the same KVM host using a different host name (either IP address or FQDN), the Manager host fails to add this KVM host. When you try moving the failed KVM host into `Maintenance` mode to remove it from the Manager, it causes the KVM host to be stuck in `Preparing for Maintenance` mode.

Solution: Migrate all virtual machines that are `UP` on the running KVM host to a different KVM host in the cluster. Doing that changes the status on the failed KVM host to `Maintenance` mode. You can them remove the KVM host.

Bug: 29127707

SSH Connection Hangs When Adding a New KVM Host with Firewalld Disabled to the Manager

SSH Connection hangs when adding a new KVM host with firewalld disabled to the Manager.

Solution: There is no workaround for this behavior. The SSH connection is eventually restored after some delay.

Bug: 29135914

Bridge Is Not Cleaned When Undeploying and Removing a KVM Host

After a KVM host is undeployed and removed from the Manager host, the previous bridges are not cleaned on the KVM host.

Solution: Networking resources should be manually removed or cleaned after removing the KVM host from the Manager host, and the default management network, `ovirtmgmt`, should not be modified.

A tool is available upstream that you can use to remove the networks that are configured by VDSM from a KVM host. For more information, refer to https://gerrit.ovirt.org/#/c/79495/.

Bug: 29167000

Creating a New Cluster in a Non-Default Data Center Without a Management Network Causes Dialog Box to Hang and Generates Uncaught Exception in UI Log

The steps to reproduce this issue are as follows:

1. Create a new data center with the default settings.
2. Click **Configure Later** when prompted on the **Data Center - Guide Me** dialog box.
3. Create a new cluster by adding the cluster to the new data center, giving the cluster a new name but leaving the **Management Network** blank.
4. Click **OK**.

Note

By default, the Manager adds the `ovirtmgmt` management network as the **Management Network**. This field can only be left blank if this management network has been removed and no other management networks have been created. This issue occurs only if the **Management Network** field is left blank.

The dialog box then hangs, but there are no error messages that are generated in the `engine.log` file; however, an uncaught exception is generated in the `ui.log` file.

After this issue is encountered, each time the new data center is clicked, a UI exception is generated.

It is also observed that the new data center could be removed, even though the new cluster and a host in this data center still reside on this Manager.

Solution: If you encounter this issue, there are two possible workarounds:

- Close the dialog box, delete the data center, and create a new data center. Creating a new data center brings back the `ovirtmgmt` management network.

  Or:

- Close the dialog box, create a new network in this data center, and when creating the new cluster, select this new network as the management network.

Bug: 29385759

Incomplete Error Message When Using the Manager to Stop a KVM Host

This issue is seen with a KVM host whose **Status** is `Unassigned`. The steps to reproduce the issue are as follows:

1. Go to **Compute** and then click **Hosts**.
2. On the Hosts pane, click **Management** and from the drop-down list select **Stop**.

   The following incomplete **Operation Canceled** error message is generated:

   ```
   Error while executing action
   ```

   Although this error message is incomplete, it is accurate; however, the message does not provide a workaround.

Solution: The **Status** of the KVM host must be `UP` before you can stop the KVM host. Try setting the KVM host to `Maintenance` mode and then stopping it. If this does not work, you must log in to the KVM host, resolve the issue, and bring it back up.

Bug: 29298704

Host Console Indicates KVM Host Is Registered on the Manager Host After Its Removal

The Host Console indicates that an KVM host is still registered on the Manager host after it has been removed from the Manager host. This issue is observed in the following scenario.

1. Remove the KVM host by using the Manager as follows:
   a. On the **Hosts** pane, put the KVM host in `Maintenance` mode by clicking **Management** and then selecting `Maintenance` from the drop-down list.
   b. Click **Installation** and then select **Reinstall** from the drop-down list.
   c. Click **Hosted Engine** and then select **Undeploy** from the drop-down list.
   d. Click **OK**.
   e. Then set the KVM host to `Maintenance` mode again and click **Remove** to open the **Remove Host(s)** confirmation window and click **OK**.
2. Open the Host Console.
3. Go to **Virtualization** and then click **Hosted Manager**.

   The **Host Manager Setup** screen indicates that the system is already registered to the removed KVM host.

Solution: There is no workaround for this behavior.

Bug: 29444179

KVM Hosts Must Start with a Fresh Installation of Oracle Linux

To avoid channel conflicts, KVM hosts must start with a fresh installation of Oracle Linux.

Solution: There is no workaround for this behavior.

Bug: 29676809

Removing a Stolen, Defunct, Nonresponsive, or Destroyed KVM Host

A KVM host that is under the control of a Manager host can be taken over by another Manager host. See also KVM Host Under the Control of a Manager Host Can Be Accidentally Added to Another Manager Host Without Validation of Its Current State.

For example, a KVM host that is already in use by a Manager host can be added as a **New Host** by a different Manager host. In this scenario, the original Manager is unable to communicate with its KVM host. Because the KVM host has a running a VM, attempts to put the host into `Maintenance` mode are rejected with the following error message:

```
Host still has running VMs on it, and is Non responsive state
```

Solution: There are two available methods for handling this situation:

- Method to resolve the issue of a host being taken over by another Manager host.
- Method to remove a KVM host that has become permanently nonfunctional.

Method to Resolve the Issue of a Host Being Taking Over by Another Manager Host

When the new Manager host takes over the KVM host, the following symptoms are observed:

- On the original owning Manager host, the KVM host shows a status of `Connecting` and the VMs show up as running.
- On the new Manager host, copies of the VMs show up as `external_`*`vm-name`* and they are running.

Perform the following steps:

1. Power off the KVM host.

   After powering off the KVM host, the following events occur:

   - The KVM host eventually goes into a status of `NonResponsive` on both Manager hosts .
   - The VMs go into a status of `Unknown` on both Manager hosts.
   - The following events are triggered for this KVM host on both Manager hosts: `Handling non responsive Host` *`host-name`*.
2. Wait for these events to fail.

On both Manager hosts, perform the following steps:

1. Click **More Actions** and select **Confirm Host has been Rebooted** from the drop-down list.
2. Select the **Confirm Operation** checkbox and click **OK**.

   This action causes the VMs to be shutdown and the host to display a value of `0` under the **Virtual Machines** column.
3. Set the KVM host to `Maintenance` mode.

Then, on the new Manager host, perform the following steps:

1. Remove the VM copies.
2. Remove the KVM host.

When the KVM host comes back up, SSH to it and remove all authorized keys.

```
# rm /root/.ssh/authorized_keys*
```

Then, on the original owning Manager host, reinstall the KVM host using password authentication (for simplicity).

Note

If the installation fails on the setup due to network issues causing the KVM host to go into a `NonResponsive` status on the Manager host, set the KVM host back to `Maintenance` mode and reinstall it with an SSH key.

Method to Remove a KVM Host That Has Become Permanently Nonfunctional

Assuming the Manager host shows the KVM host status as `Nonresponsive`, the following symptoms are observed:

- The VMs that were running on the KVM host show a status of `Unknown`.
- The following events are generated on the Manager host for this KVM host:

  ```
  Handling non responsive Host host-name
  ```

  These events eventually fail.

Perform the following steps:

1. Click **More Actions** and select **Confirm Host has been Rebooted** from the drop-down list.
2. Select the **Confirm Operation** checkbox and click **OK**.

   This action causes the VMs to be shutdown and the host to display a value of `0` under the **Virtual Machines** column.
3. Set the KVM host to `Maintenance` mode.
4. Remove the KVM host.

For more information about these methods, refer to *Doc ID 2540819.1* in the Oracle Support Knowledge Base.

Bug: 29685904

Network Issues

- MAC Address Displayed on the Manager for the Non-Master Slave Port of a Bond Not Synchronized With KVM Host
- Manager Does Not Update the IP Address of a VM When Switching the VM Network for a Running VM
- Default Route Still Set to Yes After Default Route Role Is Removed from Connected Network
- Exception Generated When VLAN Network Is Added with Interface Name Longer Than 15 Characters

MAC Address Displayed on the Manager for the Non-Master Slave Port of a Bond Not Synchronized With KVM Host

After a bond is created on an KVM host with 2 slave ports, the MAC address of the non-master slave port is changed to be the same as the master slave port on the KVM host, but the Manager continues to display the previous MAC address of the slave port.

Solution: There is no workaround for this behavior.

Bug: 29049447

Manager Does Not Update the IP Address of a VM When Switching the VM Network for a Running VM

In a scenario where a virtual machine is running with one VNIC interface connected to a VM network, it is observed that the Manager allows the user to change the VNIC interface for the running VM to a different VM network. This action causes the virtual machine to lose its VM network and to become inaccessible (that is, its IP address is no longer pingable). The Manager, however, still displays its old IP address and does not generate any error messages.

Solution: There is no workaround for this behavior.

Bug: 29060999

Default Route Still Set to Yes After Default Route Role Is Removed from Connected Network

Changing the default route on a network that is attached to a host and that has VMs connected to that network is illegal and is rejected by VDSM. The Manager host gets notified about the request failure and logs the error, but the Manager is unaware of the failure; that is, the **Manage Networks** pane shows that default route change was successful.

Solution: When you modify the network configuration, make sure the interface configuration accurately reflects the most recent changes.

Bug: 29133844

Exception Generated When VLAN Network Is Added with Interface Name Longer Than 15 Characters

Adding an VLAN interface whose interface exceeded 15 characters generates the following failure message:

```
VDSErrorException: Failed to HostSetupNetworksVDS, error = Internal JSON-RPC error:
{'reason': '[Errno 8] Input data out of range'}, code = -32603
```

The VLAN ID ranges from `0` to `4096`, which is a maximum of four characters and the total interface name has a limit of 15 characters. This is a Linux kernel limitation. The maximum interface name length is defined by the kernel headers and is a global limit, affecting all applications.

Solution: Limit interface names to 15 characters (including periods and VLAN IDs).

Bug: 29221397

Adding KVM Host Connected to VLAN Network Fails When VLAN Network Is Not Configured on Management Network

Adding a KVM host that is connected to a VLAN network fails when the `ovirtmgmt` management network is not configured on the VLAN network.

Solution: All servers that are part of a single cluster must be on the same VLAN management network.

Perform the following steps:

1. Go to **Network** and then click **Networks**.
2. Select the `ovirtmgmt` network under the **Name** column.
3. Click **Edit**.
4. Select the **Enable VLAN tagging** checkbox and enter the VLAN tag ID in the text entry field.

   Make sure that the VLAN tag ID is the same as the VLAN ID set on the host interface to be connected to the `ovirtmgmt` management network.
5. Go to **Compute** and then click **Hosts**.
6. Click **New**.
7. On the **Hosts** pane, click on the KVM host.
8. Click on the **Network Interfaces** tab.
9. Click **Setup Host Networks** and add the `ovirtmgmt` management network to the appropriate interface.

Bug: 29245869

Network Synchronization Fails but Is Reported as Succeeding

After creating a VLAN network with a MTU value and adding the network to a host interface, the network is not synchronized because the host retains the default MTU value of `1500`. When clicking **Sync All Networks**, the Manager reports the following message, indicating that the network synchronization is completed:

```
Finished Synchronizing networks on host
```

The network, however, is still not synchronized.

Solution: Try clicking **Sync All Networks** again.

Bug: 29311422

KVM Host Becomes Non-Operational When a Bondport Connected to VM Network Changed from an Unsupported Mode to a Supported Mode

When a bondport is created with a mode that is not supported for a VM network, the network can be connected to a non-VM network successfully; however, if the non-VM network is changed to VM network, the network becomes out of sync. Furthermore, if the user follows the instructions provided in the error message to fix the network issue, the KVM host becomes non-operational. This issue is caused by the network change (non-VM to VM network) combined with the bond mode change.

Note

No issues occur when performing these actions in reverse; that is, changing a VM network to a non-VM network and then changing the bond mode accordingly.

The steps to reproduce this issue are as follows:

1. Create a non-VM network and connect the network to a bondport mode in `0`, `5`, or `6`.
2. Change the network mode to a VM Network by editing the network in the Manager and selecting the **VM Network** checkbox.

   This action causes the network to become out of sync.
3. Click **Sync All Networks**.

   The following error is generated: `Network` *`name`* `is attached to bond` *`number`*`. VM networks cannot be attached to bonds in mode 0, 5 or 6`.
4. Change the bond mode to a mode available for a VM network (`1`, `2`, or `4`) and click **OK**.

   After the network setup window closes, the **Sync All Network** button appears again, indicating that the network is out of sync, and the host becomes non-operational.

Solution: You can click **Sync All Networks** again to bring the KVM host up. Alternatively, to bring the KVM host up, you can put this KVM host in `Maintenance` mode and activate it after the network is back in sync.

Bug: 29312752

Manager Does Not Check Connectivity When Removing an Interface

When you connect a host interface to a network, the Manager validates their connectivity before establishing the connection. However, when removing an interface, the Manager does not check their connectivity. This behavior is observed in a network configuration where the management network is already connected to a bondport with 3 or more slave ports and only 1 of the ports is in UP state and is able to communicate with the management network.

In this situation, when you attempt to remove the UP port (master port) in the **Setup Host Networks** dialog box, the Manager generates the following **Operation Canceled** error message:

```
Error while executing action HostSetupNetworks: Could not connect to peer host
```

This error message, which is generated during the removal of the slave port, is referring to the new connection that cannot be established, even though the removal of the master port has already occurred.

Solution: There is no workaround for this behavior. In this situation, you need to make sure the remaining communication between the bondport and the management network are not interrupted after the slave port is removed, otherwise the host loses connection with the Manager and becomes non-responsive.

Bug: 29338703

Network Scale Limitation When Adding Networks to a KVM Host

In an Oracle Linux environment you can add approximately 389 networks to a KVM host, after which network communication timeout errors start appearing in the Manager log file and no futher networks can be added to the host.

Solution: There is no workaround for this behavior.

Bug: 29383782

Network Label Failure Generates Illegal Network Parameters Error When Performing Other Network Operations on the KVM Host

In a scenario where two VLANs are erroneously created with duplicate VLAN numbers, a warning in the form of an orange exclamation mark appears as expected in the Manager next to the duplicate VLAN on the **Setup Host** dialog box with the following error message:

```
Cannot have networks with duplicate vlan id on same interface.
```

After this network configuration error, attempting to perform other network operations on the KVM host generates the following **Operation Canceled** error message:

```
Error while executing action HostSetupNetworks: Illegal Network parameters
```

Solution: You must resolve the network label failure before other network operations can be performed.

Bug: 29424399

Cannot Modify a VNIC in a Running VM if an MTU Value is Set

If a virtual machine is running, editing a VNIC that has an MTU value set fails with the following message:

```
 Error while executing action Edit VM Interface properties: General Exception
```

The following message is displayed in the `/var/log/vdsm/vdsm.log` file:

```
 libvirtError: Operation not supported: cannot modify MTU
```

Solution: Shut down the virtual machine before editing the VNIC. A known issue in the upstream oVirt release.

Bug: 29456945

VM Network Bridge Name Does Not Match VM Network Name

When you create a new VM network, VDSM creates a bridge named after the VM network and its associated configuration file (`/etc/sysconfig/network-scripts/ifcfg-vm_network`) on the Oracle Linux KVM hosts.

If the VM network name is longer than 15 characters, or it contains special characters or a space character, VDSM generates a name for the bridge and the configuration file in the format "on*XXXXXXXXXXXXX*" where *XXXXXXXXXXXXX* is the first 13 hexadecimal characters extracted from the UUID of the network.

This is a Linux kernel limitation, bridge names must be 15 characters or less, and must not contain any special characters.

Solution: Limit VM network names to 15 characters and avoid any special characters.

Bug: 29409851

Storage Issues

Storage Must be on the Same Subnet as the KVM Hosts

In order to avoid issues with routing, a storage must be located on the same subnet as the Oracle Linux KVM hosts that will use the storage.

Bug: 29220930

Decreasing the Storage Size Used in Storage Domains Is Not Recommended

Although the size of NFS Ext 3 and 4 filesystems can be decreased and Block Storage (iSCSI and Fibre Channel) provides the capability to decrease storage size by resizing the underlying LUN, decreasing the storage size that is used for a storage domain is potentially a dangerous operation and is highly not recommended.

Solution: Do not decrease the storage size used in storage domains in your virtualization environment.

Bug: 29285337

Manager Not Updating the Size of an iSCSI-Based Virtual Disk After ZFS Storage Resized

The Oracle Linux Virtualization Manager is not updating the size of an iSCSI-based virtual disk after the ZFS storage is resized. This issue is seen after creating an LUN, attaching the virtual disk to a running VM, resizing the LUN, and restarting VDSM. After the refreshing the **Disks** pane, the iSCSI-based virtual disk

size does not update accordingly. However, when checking the iSCSI disk on the SPM host, the size of the disk is correctly updated.

Solution: There is no workaround for this behavior.

Bug: 29370809

Manager Does Not Prevent the Removal of the Last Available Master Storage Domain

The master storage domain, if it is the last available storage domain, cannot be removed from the Manager; however, the Manager provides the capability to perform a force remove of the last available master storage domain by selecting the **Destroy** option on either a detached domain or storage domain that has been placed in `Maintenance` mode.

In testing this functionality, the Manager is allowing the removal of the storage domain by following the normal steps to remove a storage domain (that is, without having to do force remove of the storage domain).

Solution: There is no workaround for this behavior.

Bug: 29437425

VM Templates Can Be Imported with MAC Addresses Not in Range for the MAC Address Pool

VM templates can be imported with MAC addresses that are out of range for the MAC address pool.

Solution: If there is a MAC address range restriction for your virtualization environment, the workaround is to manually change the MAC address to an address within the range of the MAC address pool before starting the virtual machine.

Bug: 29449334

Oracle Linux Virtualization Manager Does Not Prevent Adding a Direct LUN Disk Being Used by an Active Storage Domain

The Manager prevents creating an storage data domain on LUNs that are being used by direct LUN disks. The Manager, however, does not prevent adding a direct LUN disk that is being used by an active storage domain.

Solution: There is no workaround for this behavior. If you attempt to add a direct LUN disk that is being used by an active storage domain, the Manager prompts you to approve the operation with the following warning message: `This message might be unrecoverable and destructive!`

Bug: 29465439

Microsoft Windows 8 (and Later) VMs Disabling Third-Party Mini-Port Drivers

Microsoft Windows 8 (and later) VMs are disabling third-party mini-port drivers.

Solution: To bring back the third-party mini-port drivers, perform the following steps:

1. Start a VM using the IDE interface.
2. Open the console for the VM.

3. Open the Command Prompt in the Microsoft Windows virtual machine and set the machine to boot in Safe Mode.

```
> bcdedit /set {current} safeboot minimal
```

4. Shutdown the VM.
5. Change the storage type.

   The virtual machine now starts normally.
6. Reset the `bcdedit` setting to boot the virtual machine in Normal Mode.

```
> bcdedit /deletvalue {current} safeboot
```

7. Reboot the virtual machine.

Bug: 29472477

Manager Does Not Prevent Attaching VirtIO-SCSI Disks to OL6U10_X86 VMs

Manager does not prevent attaching VirtIO-SCSI disks to OL6U10_X86 VMs. The VirtIO-SCSI option in the Manager should be disabled for OL6U10_X86 VMs in the **Virtual Machine: Resource Allocation Settings**.

Solution: There is no workaround for this behavior. Do not attach VirtIO-SCSI disks to OL6U10_X86 VMs.

Bug: 29499061

Virtual Machine Issues

- VMs Not Migrated As Expected Through VM Affinity and Host Affinity Rules Set to Active and Enforcing
- Changing Watchdog Actions on a Running VM Requires a VM Restart for New Attribute to Take Effect
- Guest Agent Hooks Do Not Work If a Migration Policy Is Set to Legacy
- VM-to-VM Soft-Affinity Violation Not Properly Detected
- Disabled Host Affinity Rule Not Working
- Importing Several OVA Files Resulted in Only One VM Being Imported
- High Availability VMs Fail to Restart After Restarting KVM Host
- Migration Mode Greyed Out When Setting Pinning-to-Host Setting for a VM
- Cannot Assign VM from a VM Pool: Manager Claims That the VM Is Attached When It Is Not
- Manager Does Not Generate a Warning Message to Prevent OVA Export from a VM Whose Guest OS Is Installed on a Direct LUN Disk
- Manager Allows OVA Export from a VM Whose Guest OS Is Installed on a Direct LUN Disk
- Manager Does Not Prevent VM Shutdown When Creating a Snapshot
- EngineException When Unplugging a NIC Connected to a VM Network on a Running VM
- HA VM Not Started on Other Host When Source Host Dies Unexpectedly

- VNC Console Session for a Running VM Closes During VM Migration
- Migrate VM Dialog Box Cannot Be Closed While a VM Is Being Started
- Unable to Perform CPU Hot Unplug with Default Machine Type (pc-i440fx-2.6) for Oracle Linux VM
- Restoring VMs Using Simple Backup Fails Unless the Disk Used Is Set to Thin Provisioning

VMs Not Migrated As Expected Through VM Affinity and Host Affinity Rules Set to Active and Enforcing

In a 2-host cluster where 4 VMs are running on one of the hosts, a **Vm Affinity Rule** and a **Host Affinity Rule** are set on the Manager to **Active** and **Enforcing**. These rules, however, are not applied correctly because the VMs defined in the affinity group should have migrated to the other host; instead, the other KVM host is filtered out in this scenario.

Solution: There is no workaround for this behavior.

Bug: 29190112

Changing Watchdog Actions on a Running VM Requires a VM Restart for New Attribute to Take Effect

After enabling a watchdog device and setting the watchdog `action` attribute to `reset`, the VM is restarted. Changing the watchdog `action` to a different attribute, such as `poweroff`, causes the **Pending Virtual Machine Changes** window to open with the following message:

```
Changes that require Virtual Machine restart: watchdog. The VM is then restarted.
```

The issue is that even though watchdog `action` is changed to `poweroff`, the attribute value did not take effect immediately. The VM must first be restarted before the new attribute takes effect.

Solution: There is no workaround for this behavior. If a watchdog action is changed on a running VM, you must restart the VM for the attribute changes to take effect.

Bug: 29213956

Guest Agent Hooks Do Not Work If a Migration Policy Is Set to Legacy

The guest agent hooks do not work for migration policies that are set to **Legacy**.

Solution: This behavior is expected, as the guest hooks are enabled depending on the migration policy that is configured, and the guest agent hook mechanism is disabled for migration policies set to **Legacy**. To use guest agent hooks, you must use one of the other available migration policy types.

Bug: 29261746

VM-to-VM Soft-Affinity Violation Not Properly Detected

In a 2-host cluster with a VM running on each KVM host and no CPU and Memory load on either host, a **VM Affinity Rule** and **Host Affinity Rule** are set to **Positive** and **Soft**. In this scenario, with a soft VM affinity rule in place and no CPU and Memory load on either host, a VM soft-affinity violation should have been detected and one of the VMs should have migrated; however, no VM soft-affinity violation is detected.

Solution: There is no workaround for this behavior.

Bug: 29281027

Disabled Host Affinity Rule Not Working

In a 2-host cluster with 2 active VMs, and with the VMs shutdown, the **Host Affinity Rule** setting for an affinity group is changed from **Positive** and **Enforcing** to **Disabled**. When attempting to run the VMs, the VMs fail to start with the following **Operation Canceled** error message:

```
Error while executing action … Cannot run VM. There is no host that satisfies currents
scheduling constraints. See below for details. This error message is unexpected,
as the VMs should have been started after disabling the affinity rule.
```

Solution: There is no workaround for this behavior.

Bug: 29368153

Importing Several OVA Files Resulted in Only One VM Being Imported

When importing virtual machines, multiple OVA files can be selected, but only one VM is actually imported. If there is a limitation, the Manager should block attempts to import multiple OVA files.

Solution: There is no workaround for this behavior.

Bug: 29373795

High Availability VMs Fail to Restart After Restarting KVM Host

High Availability (HA) VMs fail to restart after the KVM host is restarted on the Manager.

Solution: There is no workaround for this behavior. The KVM host eventually starts up several minutes later.

Bug: 29393228

Migration Mode Greyed Out When Setting Pinning-to-Host Setting for a VM

This issue is observed in a 2-host cluster. The steps to reproduce the issue are as follows:

1. Edit a VM by selecting the **Highly Available** checkbox on the **High Availablity** tab, and click **OK**.
2. Edit the VM and update the pinning-to-host settings by selecting **Specific Hosts** and adding the two hosts from the drop-down list on the **Host** tab, and click **OK**.

   After doing completing these steps, the **Migration Mode** drop-down list is greyed out. This option should be available in this scenario.

Solution: Try changing the pinning-to-host option to **Any Host in Cluster** and then change the setting back to **Specific Hosts** again.

Bug: 29374044

Cannot Assign VM from a VM Pool: Manager Claims That the VM Is Attached When It Is Not

After creating a VM pool with 10 VMs, setting the **Maximum number of VMs per user** field to `10`, and granting permissions to a user, the user correctly attaches some VMs. Later the user tries to attach more

VMs, but the Manager generates the following error, indicating that VMs are already attached when they are not:

```
PoolName:
Cannot attach VM to VM-Pool. VM-Pool is already attached to a User.
Cannot allocate and run VM from VM-Pool. There are no available VMs in the VM-Pool.
```

Solution: A known issue in the upstream oVirt release. There is no workaround for this behavior.

Bug: 29379502

Manager Does Not Generate a Warning Message to Prevent OVA Export from a VM Whose Guest OS Is Installed on a Direct LUN Disk

The Manager does not generate an warning message that prevents OVA export from a VM whose guest OS is installed on a direct LUN disk.

Solution: There is no workaround for this behavior.

Bug: 29432214

Manager Allows OVA Export from a VM Whose Guest OS Is Installed on a Direct LUN Disk

The Manager allows OVA export from a VM whose guest OS is installed on a direct LUN disk. The Manager should prevent attempts to export an OVA from a VM whose guest OS is installed on a direct LUN disk image.

Solution: There is no workaround for this behavior.

Bug: 29432323

Manager Does Not Prevent VM Shutdown When Creating a Snapshot

The Manager does not prevent a VM from being shutdown when creating a snapshot, thereby causing the snapshot to hang. In this situation, the VM cannot be started or removed and the creation of the snapshot cannon be stopped.

When inspecting the Manager log, the follow message is seen repeatedly:

```
[org.ovirt.engine.core.bll.SerialChildCommandsExecutionCallback]
(EE-ManagedThreadFactory-engineScheduled-Thread-34)
[7363ae20-1f20-451c-8318-215f122fcc15] Command 'CreateSnapshotForVm' (id:
'b50fee33-204b-4fc0-a8e6-d40c7f58d485') waiting on child command id:
'3c843771-8b8f-4c07-9230-822bd2892481' type:'AddDisk' to complete
2019-03-08 03:55:22,992Z INFO
```

Solution: There is no workaround for this behavior.

Bug: 29457750

EngineException When Unplugging a NIC Connected to a VM Network on a Running VM

Unplugging a NIC that is connected to a VM network on a running VM may fail on the Manager with the following **Operation Canceled** message:

```
Error while executing action Edit VM Interface properties: Failed to deactivate
VM Network Interface.
```

When inspecting the Manager log, you may see the following EngineException:

```
EngineException: org.ovirt.engine.core.vdsbroker.vdsbroker.VDSErrorException:
VDSGenericException: VDSErrorException: Failed to HotUnplugNicVDS, error =
Timeout detaching <Interface name=vnet3, type=bridge, mac=00:21:f6:00:04:6b
at 0x7f6d30377868>, code = 50 (Failed with error DEACTIVATE_NIC_FAILED and
code 50)
```

Solution: Try unplugging the NIC again.

Bug: 29460927

HA VM Not Started on Other Host When Source Host Dies Unexpectedly

HA VMs are not started on the other host when the source host is powered off or dies unexpectedly.

Solution: If a host that has running HA VMs is powered off or dies unexpectedly and the VMs do not have additional split-brain prevention mechanisms in place (such as Sanlock, VM leases, or VM resume), you may be required to use the **Confirm 'Host has been Rebooted'** option from the **More Actions** drop-down list on the **Hosts** pane before the Manager allows the HA VMs on the host to be restarted on the other host.

Bug: 29491043

VNC Console Session for a Running VM Closes During VM Migration

If you have an VNC console open for an active virtual machine during VM migration, the session closes. This behavior occurs when using either the native client or noVNC.

Solution: There is no workaround for this behavior.

Bug: 29491251

Migrate VM Dialog Box Cannot Be Closed While a VM Is Being Started

The **Migrate VM** dialog box cannot be closed while a VM is being started in the Manager.

Solution: Refresh the browser page.

Bug: 29498386

Unable to Perform CPU Hot Unplug with Default Machine Type (pc-i440fx-2.6) for Oracle Linux VM

The CPU hot unplug feature on the Manager is not working with the default emulated machine type for Oracle Linux VMs (`pc-i440fx-2.6`).

Solution: To enable CPU hot unplug feature for a particular Oracle Linux VM, you must perform the following steps:

1. Shutdown the VM.
2. Change the Custom Emulated Machine to `pc-i440fx-2.7` by performing the following steps in the Administration Portal:

a. Go to **Compute** and click **Virtual Machines**.

b. Select the Oracle Linux VM and click **Edit Virtual Machine**.

c. Click the **System** tab on the sidebar.

d. Click **Advanced Parameters** to expand the menu.

e. On the Custom Emulated Machine drop-down menu, select `pc-i440fx-2.7`.

f. Click **OK** to save your changes.

3. Restart the VM.

Bug: 29517731

Restoring VMs Using Simple Backup Fails Unless the Disk Used Is Set to Thin Provisioning

Restoring VMs using Simple Backup fails.

Solution: When backing up and restoring VMs using Simple Backup, during the restore operation you must set **Thin Provisioning** to **YES**.

Bug: 29541967

Chapter 6 Feedback and Support

Support for the Oracle Linux Virtualization Manager is available to customers with an Oracle Linux Premier Support subscription. Refer to the Oracle Linux 7 License Information User Manual for information about Oracle Linux support levels.

Providing Feedback and Support

If you need to report an issue and have an Oracle Linux Premier support subscription, you should open a case with Oracle Support at https://support.oracle.com

If you are reporting an issue, please provide the following information where applicable:

- Description of the problem, including the situation where the problem occurs, and its impact on your operation.
- Machine type, operating system release, browser type and version, locale and product release, including any patches you have applied, and other software that might be affecting the problem.
- Detailed steps on the method you have used, to reproduce the problem.
- Any error logs or core dumps.

Obtaining the Log Files

The Oracle Linux Virtualization Manager provides the log collector tool to collect relevant logs from across the virtualization environment when requesting support. When submitting a Service Request (SR), please include the archive file that is generated by the log collector tool. This information can be used by Oracle Support to analyze and diagnose issues with the Manager.

To use the log collector tool to generate an archive file for Oracle Support, perform the following steps:

1. Install the log collector tool:

```
# yum install ovirt-log-collector
```

2. Perform the log collection on the Manager host:

```
# ovirt-log-collector
```

To use the log collector tool, you are required to log in as the `root` user and provide the administration credentials for the Manager.

The `ovirt-log-collector -h` command displays usage information, including a list of all valid options for the `ovirt-log-collector` command.

When the `ovirt-log-collector` command is run without specifying any additional parameters, its default behavior is to collect all logs from the Manager and its attached hosts. This command also collect database logs unless this collection is excluded using the `--no-postgresql` command option.

After the log collector tools performs the log collection, the collected logs are placed in an archive file under the `/tmp/logcollector` directory. The log collector tool automatically assigns a name to the archive file.

Chapter 7 Accessibility Features

This chapter describes the accessibility features and known issues for the Oracle Linux Virtualization Manager Release 4.2.8 documentation.

Documentation is provided in HTML and PDF formats. The HTML format is accessible, but the PDF format is not accessible.

Documentation HTML Access Keys

To use the documentation without using a mouse, you can use HTML access keys. Enter the HTML access key for your browser, plus the access key letter. For example, using Mozilla Firefox, press Alt+Shift +n to go to the next page. See your web browser documentation to find the key combination to use for HTML access keys. The following table lists the tasks you can perform using access keys.

Task	Access Key
Go to the next page	n
Go to the previous page	p
Go to the document home page	h
Go up a level in the document	u
Activate the Contents tab	c
Activate the Search tab	s

In addition to the HTML access keys, the following keyboard shortcuts are available:

Task	Shortcut Key
Toggle hide and show the sidebar	Ctrl+Left Arrow
Toggle hide and show page header	Ctrl+Up Arrow

Documentation Accessibility Issues

The following are the known accessibility issues with Oracle Linux Virtualization Manager Release 4.2.8 documentation:

- Product does not have Accessibility Features documentation (**Bug:** 26175494)
- HTML page heading levels might not start at h1 (**Bug:** 26717728)
- Book title can extend off the screen with 200% zoom (**Bug:** 26717874)
- docs.oracle.com Help drawer HTML heading tags have structure violation (**Bug:** 26560104)