vRealize Operations Manager 6.6 Release Notes

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VMware vRealize Operations Manager Appliance 6.6 | 13 June 2017 | Build 5707161

VMware vRealize Operations Manager 6.6 PAK Updates | 13 June 2017 | Build 5707160

VMware vRealize Operations Manager 6.6 Endpoint Operations Agents | 13 June 2017 | Build 5654169

Updated on 11 July 2017

Check frequently for additions and updates to these release notes.

What's in the Release Notes?

The release notes cover the following topics:

- What's New?
- System Requirements
- Installing and Updating vRealize Operations Manager
- Resolved Issues from Previous Releases
- Known Issues in This Release
- Known Issues from Previous Releases

What's New?

Product Enhancements

vRealize Operations Manager 6.6 focuses on enhancing product usability, accelerating time to value and improving troubleshooting capabilities.

- Simplified usability and faster time to value capabilities:
  - New HTML5 user interface provides an easier and consistent experience.
  - The Getting Started dashboard allows for quick navigation.
  - Persona based dashboards provides for answers in one place. Dashboards are separated into categories such as Operations, Capacity and Utilization, Performance Troubleshooting, Workload Balance, and Configuration and Compliance.
  - Out of the box integration with vSAN and vRealize Automation provides quick time to value.

  Watch videos related to the new dashboards that are introduced with vRealize Operations Manager 6.6 here.

- Added Native vSAN management capabilities:
  - Allows for centralized management across stretched clusters.
  - Ability for complete vSAN management, which includes administering performance, capacity, logs, and configuration and

health.

- Fully Automated Workload Balancing:
  - Ensures performance across the datacenter's with fully automated workload balancing, across clusters and across data stores.
  - Ensures DRS Configurations and provides the option to set DRS automation level for individual objects.
  - Predictive DRS takes action to preempt resource contention.
  - Utilizes operations analytics to optimize initial placement of workloads through vRealize Automation.

  Watch this video for a demo about automatic workload placement.

- Additional out-of-the-box compliance capabilities:

  - Ability to tackle compliance problems through the new vSphere hardening dashboard
  - Extends compliance through PCI & HIPAA compliance for vSphere.
  - Ensures business configurations through new cluster, host, and VM configuration dashboards

General improvements

- Adds support for Windows Server 2016 for End Point Operations agents
- The End Point Operations Management agents collect metrics for NFS-mounted file systems.

For more information on these enhancements, see the vRealize Operations Manager 6.6 VMware product page.

System Requirements

Review this section before you install or update vRealize Operations Manager.

Sizing and Scaling

The CPU, memory, and disk requirements that meet the needs of a particular environment depend on the number and type of objects in your environment and data collected, which includes the number and type of adapters installed, the use of HA (High Availability), the duration of data retention, and the quantity of specific data points of interest. VMware updates Knowledge Base article 2093783 with the most current information about sizing and scaling. The Knowledge Base article includes overall maximums and spreadsheet calculations that provide a recommendation based on the number of objects and metrics you expect to monitor.

Deployment Formats

You can deploy vRealize Operations Manager 6.6 with VMware virtual appliance.

Note: vRealize Operations Manager 6.5 was the final version of the product to support RHEL installations. If you are running Linux based vRealize Operations Manager 6.5, you can upgrade to vRealize Operations Manager 6.6.

If you are deploying a vRealize Operations Manager virtual appliance, use a VMware vSphere Client to connect to a VMware vCenter Server, and deploy the virtual appliance through the vCenter Server instance. The vRealize Operations Manager virtual appliance must be deployed on hosts that are ESX/ESXi 5.5 or later managed by VMware vCenter Server 5.5 or later.

Linux Requirements

You can upgrade the standalone version of vRealize Operations Manager on Red Hat Enterprise Linux (RHEL) 6.5, 6.6, and 6.7 operating systems.

Applying License Keys

In addition to the existing per operating system instance (OSI) licensing, vRealize Operations Standard edition is also available on a per processor (CPU) basis. Licensing for other editions of vRealize Operations is unchanged and continues to be available on a per OSI metric.

Customers can install multiple Advanced and Enterprise editions in the same vRealize Operations Manager deployment. Customers can deploy single choice and suite licenses together. License counting for individual license keys is handled through licensing groups. You can mix editions or licensing models in one of the following ways:

- Deploy vSphere with Operations Management (any edition) and vRealize Operations Standard together in one deployment.
- Deploy vCloud Suite/vRealize Suite Standard, Advanced or Enterprise and vRealize Operations Advanced or Enterprise edition together in one deployment.

Note: You cannot deploy a vRealize Operations Standard edition license with either an Advanced or Enterprise license in the same deployment.

A license key assigned to a vRealize Operations Manager instance only counts towards virtual machines that are powered on. In order to be compliant, you need enough licenses to cover average powered-on VMs over trailing 365 days.

Compliance Alerts

To ensure compliance of your vSphere 6.0 and 5.5 objects, vRealize Operations Manager 6.6 includes compliance alerts for VMware vSphere Hardening Guide versions 6.0 and 5.5. These hardening guide alerts are based on object type.

Solutions Support

In addition to the VMware solutions (vSphere, Endpoint Operations Management, and vRealize Log Insight), see the compatibility table in the Solution Exchange marketplace for many more solutions. These solutions

works with Virtual Appliance single or multiple node, RHEL single or multiple node.

TLS Support

Transport Layer Security (TLS) 1.0 is enabled by default in vRealize Operations Manager. TLS 1.0 is a superseded version of TLS and is enabled for vRealize Operations Manager compatibility with external products.
To disable TLS 1.0, see KB 2138007.

VMware Product Compatibility

This vRealize Operations Manager release has been certified as compatible with the following VMware products:

- VMware vSphere 5.5 and later
- vRealize Hyperic 5.8.5 and later
- vRealize Infrastructure Navigator 5.8.5 and later

Browser Support

This vRealize Operations Manager release supports all current Web browsers, although only the following browsers have been tested with this release:

- Google Chrome: Version 53 and 54
- Mozilla Firefox: Version 48 and 49
- Microsoft Internet Explorer: Version 11

Installing and Updating vRealize Operations Manager

Note: Customers upgrading older versions of vRealize Operations Manager (6.0.x or 6.1) must use a two-step upgrade: They must first upgrade to vRealize Operations Manager 6.3.1 and then upgrade to vRealize Operations Manager 6.6. Customers with recent versions of Realize Operations Manager (6.5, 6.4,6.3.1 6.3, 6.2.1, or 6.2) can upgrade directly to vRealize Operations Manager 6.6.

The vRealize Operations Manager Information Center has detailed information about installation and software updates.

You can also download the vRealize Operations Manager vApp Deployment and Configuration Guide that provides guidance for a vRealize Operations Manager virtual appliance, before installing or updating vRealize Operations Manager:

Upgrading to vRealize Operations Manager 6.6 will reset out-of-the-box content as part of software upgrade process even if the **Reset Default Content** button is unchecked during the upgrade. This implies that the user modifications made to default content such as alert definitions, symptom

definitions, recommendations, policies, views, dashboards, widgets, and reports will be overwritten. You need to clone or backup the content before you upgrade to vRealize Operations Manager 6.6

The vRealize Operations Manager NGC plugin for the vSphere Web Client has been removed in vRealize Operations Manager 6.6.
For information about removing the vRealize Operations Manager plugin from vSphere after upgrading to 6.6, see KB 2150394 .

Note: Under New Known Issues, see the **Installation and Update** section for issues related to installing vRealize Operations Manager or updating the software. There are also some older known issues regarding installation or upgrading that may be relevant. Please look in the lower toggled set of notes for these issues.

Resolved Issues from Previous Releases

This section contains previous known issues that are resolved in this release:

- Enabling pDRS results in a message similar to the following, when the corresponding python adapter instance might have stopped:
  ```
  Failed to configure predictive DRS. Please close the Manage Solution
  Window and try again.
  ```

New Known Issues in This Release

The new known issues that have been identified since the previous release of the product are grouped as follows:

- New Installation and Update Issues
- User Interface Issues
- New General Issues

New Installation and Update Issues

- **User Interface screens appear blank or with old components after an upgrade.**
  If customers do not clean the browser cache after an upgrade, user interface screens might appear blank or display old components due to conflicts with the current browser cache.
  Workaround: Clean the browser cache after upgrading.

New User Interface Issues

- **Error messages might appear during initial setup of nodes**
  During vRealize Operation Manager 6.6 installation, when performing operations that involve initial setup of nodes, such as new installation, expanding an existing installation, or enabling HA for the first time, an error message similar to `Error:Permission denied to access`

`property`"`timeStamp`" might appear. There is no impact of this error on the cluster. This is an user interface issue.
Workaround: None.

New General Issues

- **The Total Reclamation Opportunity widget in the Capacity Overview dashboard does not display the Reclaimable Capacity metric**
  Although the label in the Total Reclamation Opportunity widget might read Reclaimable Storage, the metric displayed is The Total Disk Space metric instead of Reclaimable Capacity.
  Workaround: None, if you have a standard license. For advanced licenses, you can edit the Total Reclamation Opportunity widget to replace the total disk space metric with the reclaimable capacity metric for the vSphere World object type. However, this edit will not reflect in the Total Reclamation Opportunity widget in the Capacity Overview dashboard that is accessible through the home page.

- **Custom vSphere tags are not displayed in vRealize Operations Manager for vSphere versions 6.0 and higher**
  Custom tags set in vSphere version 6.0 and higher, fail to appear in vRealize Operations Manager. The issue is applicable for both newly deployed and upgraded vCenter Servers.
  Workaround: See KB 2144602.

- **The Delete Unused Snapshots for VM action appears to have failed due to timeout in vRealize Operations Manager.**
  When users perform the Delete Unused Snapshots for VM action through vRealize Operations Manager, and the snapshot removal process lasts for more than 120 seconds, the status of this actions appears as failed.
  However, the snapshot removal process continues to progress to completion on vCenter Server.
  Workaround: None.

- **vRealize Automation Env Overview dashboard continues to display vCenter cluster data even after the vRealize Automation adapter instance is removed.**
  When a vRealize Automation adapter instance is removed or deleted, the relationships that the adapter built between the vCenter cluster compute resource managed by vRealize Automation and the managed resource entities are not deleted. The vRealize Automation Env Overview dashboard continues to displays vCenter cluster data.
  Workaround: Manually delete the relationship between vCenter clusters managed by the particular vRealize Automation adapter instance and the managed resource entity.

- **The Log tab might not launch the vRealize Log Insight user interface to display logs for all objects.**
  The **Log** tab displays log information for only those object types that have their launch configs defined in the `describe.xml` file of the Log Insight adapter, such as the vCenter adapter objects. For object types that are not defined in the adapter, the **Log** tab displays an error message similar to the following:
  `This vROps is not integrated with a Log Insight yet.`
  Workaround: The View Logs action in the action list of such an object,

will lead you to its logs in Log Insight

Known Issues from Previous Releases

- Installation and Update Issues
- General Issues
- User Interface Issues
- Endpoint Operations Management Agent Issues

Installation and Upgrade Issues

- **EP OPs agent upgrade from 6.3 to 6.6 might fail**.
  EP Ops agent upgrade from 6.3 to 6.5 might fail on a few agents in case of large environments. This is shown in the summary report available in the vRealize Operations user interface
  Workaround: Try the agent upgrade again by checking the option **Install the PAK file even if it is already installed**.

- **Upgrades from 6.3 to 6.4 may fail.**
  A PAK upgrade from 6.3 may fail due to a node in a state of waiting for analytics and not responding.
  Workaround: Before upgrading from 6.3 to 6.4, customers must take clusters offline.

- **Upgrade endpoint operations agent after upgrading the product.**
  Customers must upgrade the vRealize Operations product to 6.5 before upgrading the endpoint operations agent to 6.5.
  Workaround: Customers should consult KB article 2138748 and KB article 2137709 before starting to upgrade.

- **Default policy setting may disable some containers.**
  The default policy setting does not enable the memory "Demand" and "Allocation" containers at installation.
  Workaround: To enable these containers, do one of these two steps:

  1. Disable the memory "Consuming" container in the default policy and enable memory "Demand" and "Allocation" containers.
  2. Go to Administration -> Policies and select the "Default Policy" policy as the system default.

- **Inaccurate numbers of member objects in custom groups after upgrading.**
  The preview count of the members of a custom group is inconsistent with the actual number of members if the group has any Endpoint Operations objects when you upgrade to vRealize Operations Manager 6.5. This will only occur during upgrades, not for new installations.
  Workaround: Customers need to use a VMware script to delete the Postgres self-relationship for the Endpoint Operations objects. Contact Technical Support to obtain the script.

- **The "Reset default content" checkbox in the "Select Software Update" section does not work correctly.**
  Customers who are upgrading to 6.5 may find that the "Reset default content" checkbox in the "Select Software Update" section, which is a method for overriding the default content that is normally installed during an upgrade, does not work correctly.
  Workaround: After the upgrade completes, go to Administration > Solutions, select the vCenter Server solution, and click Modify. Pay attention to upper right corner.

- **vRealize Operations Manager calculates workloads for data center and custom data center objects differently from cluster objects, basing on provisioned capacity instead of entitlement**
  Entitlement is the HA capacity of a cluster. vRealize Operations Manager suggests workload placements across clusters based on the entitlement provisioned to each cluster, which depends on whether HA is enabled or disabled on the cluster.

  - When HA is disabled, the entitlement is equal to the hardware provisioned capacity of the cluster. The workload is equal to (Demand + Overhead) ÷ (Provisioned Capacity).
  - When HA is enabled, the entitlement is equal to the sum of the cluster overhead and the currently computed HA capacity, minus the HA reservation. The workload is equal to (Demand + Overhead) ÷ (Entitlement).

  Although the workload calculations for cluster objects are based on entitlement, the workload calculations for data center and custom data center objects are based on provisioned capacity. As a result, the workloads for data center and custom data center objects are not calculated correctly when HA is enabled, and do not match the workload calculations for cluster objects.
  Workaround: N/A.

- **Some object alerts not enabled after upgrading to the current release of vRealize Operations Manager.**
  After users upgrade to version 6.3, 6.4, or 6.5 from an earlier version that had vSphere Hardening Guide alerts enabled, users will not see alerts related to distributed port groups, distributed virtual switches, or vCenter objects as these alerts are not enabled by default on upgrade.
  Workaround: Choose one of the following:

  - Enable hardening guide alerts from the adapter configuration.
  - Go to the policy library, edit the active policy to enable alerts for these three objects.

- **vRealize Operations Manager alerts trigger when the Management Pack for vCenter Configuration Manager (VCM) is integrated**
  When the Management Pack for VCM is installed and the vSphere Hardening Guide alerts are enabled for 5.5 or 6.0 objects, some of the native compliance alerts inadvertently trigger in vRealize Operations Manager. The compliance score for a selected object displays the violated native compliance rules in the Compliance tab, which results in an incorrect compliance badge score.

Workaround: Disable the native compliance alerts with these steps:

0. To see the native compliance alerts that are enabled in the policy, click **Content > Alerts.**
1. Click **Administration > Policies > Policy Library.**
2. Edit the policy applied to the objects and disable the native compliance alerts.

- **Watchdog might restart Tomcat**
  If there are multiple agents registered to a master node directly, then Watchdog might restart Tomcat whenever there is a need, where UI runs on it. There is, however, no such implication on the product or the cluster.
  Workaround: Register agents to remote collector or a load balancer instead of to a Master node.

- **Removal of directories might affect upgrade**
  In some cases, users have manually removed vRealize Operations Manager directories, such as directories where logs are stored. For example:
  ```
  /storage/log/vcops/log/vcopscli
  /storage/log/vcops/log/dbcli
  /storage/log/vcops/log/opscli
  ```
  The upgrade process requires vRealize Operations Manager directories to exist. If the directories are missing, the upgrade might fail by preventing vRealize Operations Manager services from starting, or in other unpredictable ways.
  Workaround: Do not manually remove vRealize Operations Manager directories.

- **It might be unclear that an update has failed**
  If a customer reboots a node or kills some active processes during a software update, the update process continues to show that the update is still underway even though it has failed.

General Issues

- **The License is invalid message appears when you view individual VM stats**
  When you view individual VM stats in vRealize Operations Manager, the `License is invalid` message might appear in the background.
  Workaround: Assign license key to the group and refresh license usage.

- **The Enable Actions advanced settings in the Manage Solution dialog box is disabled**
  The entry for Enable Actions in the advanced settings section in the Manage Solution dialog box is disabled. This is by design in this release.
  Workaround: Use the Enable Actions button above the Advanced Settings section.

- **Filters don't work in the Object List widget**
  In the Object List widget, you are unable to use filters to locate data in the columns of the widget.
  Workaround: None.

- **PDF reports generated from the Log Insight dashboard display a login screen image**
  When you generate PDF reports with the Log Insight dashboard, the PDF report file instead of displaying dashboard related content, always shows login screen image.
  Workaround: None

- **When integrating vRealize Business for Cloud into vRealize Operations Manager, you should only add one vRealize Business instance.**
  When integrating vRealize Business for Cloud into vRealize Operations Manager, you should only add one vRealize Business instance. If you add more than one instance of vRealize Business for Cloud, only data from the first instance of vRealize Business for Cloud is displayed on the Business Management tab.
  Workaround: Only add one vRealize Business instance.

- **vRealize Operations Manager only works with the standalone mode of vRealize Business for Cloud**
  vRealize Operations Manager only works with the standalone mode of vRealize Business for Cloud. You cannot use other deployment scenarios of vRealize Business for Cloud.
  Workaround: None.

- **When using Internet Explorer 11 to access the Log Insight and Business Management tab pages and dashboards, the data is blocked**
  When using Internet Explorer 11 to access the new Log Insight and Business Management tab pages and dashboards, the data is blocked and the page remains blank.
  Workaround: Use the Firefox or Chrome browser.

- **Log Insight agent hostname reset to default localhost after upgrading**
  The Log Insight agent hostname configuration will be reset to the default localhost after upgrading.
  Workaround: Edit the `liagent.ini` file to set the hostname to an appropriate value for your environment.

- **Compliance badge score incorrect.**
  Compliance badge score is 100 for all objects even when compliance alerts are not enabled. By default, the scores should be "?" for all objects in the system.
  Workaround: N/A.

- **Cannot create custom group using adapters that make vRealize Operations Manager REST API calls.**
  Certain adapters do not invoke the vRealize Operations Manager APIs related to custom groups correctly. As a result, the process to create a custom group in vRealize Operations Manager with objects discovered by these adapters fails with an exception error.
  Workaround: The error indicates a problem with the Java language

bindings of the vRealize Operations Manager REST API. This currently applies to several vRealize Operations Manager management packs. To work around the problem, see KB 2147670.

- **A CSV report file does not include data from a "Dashboard" data type.**
  When you generate a report that contains a dashboard, the downloaded CSV file includes data of the "Views" data type only.
  Workaround: N/A.

- **The vCenter Solution for Endpoint Operations installation fails when the vRealize Operations Manager inventory has objects discovered by previous versions of the vCenter Solution for Endpoint Operations**
  If you have any object collected from earlier version of the vCenter Solution for Endpoint Operations, then ensure that the objects are removed before you install or upgrade to the latest version of the vCenter Solution for Endpoint Operations.
  Workaround:
  1. Stop the collection of all objects or resources that are discovered by the earlier vCenter Solution for Endpoint Operations.
  2. Delete all the stopped objects.
  3. Install the latest vCenter Solution for Endpoint Operations.

  Note: By removing the objects, you will lose historical data from the vCenter Solution for Endpoint Operations and vCenter application objects history.

- **Generated reports may be blank**
  If you log in to vRealize Operations Manager with vCenter Server credentials and generate a report, the generated report is always blank.
  Workaround: None.

- **VVOL datastores are masked**
  If a VM, host, cluster, datacenter, or vCenter Server object with VVOL datastores is selected, an incorrect datastore count appears on the Environment Objects Map or the Troubleshooting All Metrics page. And if a VM is deployed on a VVOL datastore, raw or derived metrics may be missing.
  Workaround: None. The VVOL datastores are masked because vRealize Operations Manager does not yet implement the VVOL datastore metrics. However, the VVOL datastores are included in the count.

- **Rebalance Container action continues to recommend the same rebalance plan after failure**
  When a Rebalance Container action fails, and vCenter Server indicates that the operation is not allowed in the current state, the rebalance container action recommends the same rebalance plan.
  Workaround: Correct the problem in your environment, then attempt to run the Rebalance Container action again.

- **Maintenance schedules no longer assigned after upgrade**
  Maintenance schedules are disassociated from a policy after an upgrade from version 6.0 to later versions.
  Workaround: Update the policy manually after an upgrade. For more information about managing policies, see Managing and Administering

Policies for vRealize Operations Manager.

- **Deploying virtual machines to a failover host is not allowed**
  After you configure a failover host in a cluster and select the failover host in the navigation tree, then go to **Analysis > Capacity Remaining**, create a custom profile for virtual machines, and enable the custom profile for all policies, you can view the number of virtual machines that will fit on the host.
  Although the custom profile indicates that a number of virtual machines will fit on the host, you cannot power-on virtual machines deployed in failover hosts.
  Workaround: None

- **Alert Details summary links below the top link do not link to objects**
  When you view the alert details for an alert that has received symptoms from many objects, such as an alert on a host that has symptoms from virtual machine child objects, and then you expand the drop-down arrow for the alert cause, you can see the list of symptoms. Because the alert is generated with symptoms received from many objects, you see a list of links to those objects with relevant symptom descriptions. The links to the objects located below the first object do not work. This problem is relevant for all browsers, except for Internet Explorer.
  Workaround: Manually find the object you need. For example, use the global search text box in the top toolbar to search for the object.

- **Virtual Machines will not Power On, even though vRealize Operations Manager reports capacity remaining**
  In cases where one virtual machine is larger than the others in the cluster, the size discrepancy from this single virtual machine can result in vRealize Operations Manager reporting that there is capacity and time remaining, yet Admission control in vSphere will not allow the virtual machines to be powered on.
  Workaround: Determine the slot size and then increase the buffer threshold using policies. See KB 2033248 for more information about this issue and how to manually calculate the slot size.

- **Some symptoms for metrics are not canceled for objects in an unknown or no-data-received state**
  When vRealize Operations Manager stops collecting new values for a metric, vRealize Operations Manager cancels symptoms when the last collected value of a metric becomes stale. In some cases, a symptom is not canceled. For example:
  - When an adapter is stopped, vRealize Operations Manager stops processing its objects, including the cancellation of stale symptoms.
  - When a vCenter Server instance is deleted and the adapter instance is not deleted, vRealize Operations Manager stops processing its objects, including the cancellation of stale symptoms.

  vRealize Operations Manager cancels stale symptoms for metrics, but does not cancel symptoms for properties or events, such as faults.
  Workaround: None

- **The configuration for the content pack for Log Insight is overwritten**
  When you change the configuration details in the `loginsight-agent` file or from the user interface of vRealize Operations Manager, the configuration for the content pack for Log Insight is modified or overwritten. The ports from 9000 to 514 might be reset and the protocol changes to `syslog` instead of `cfapi`.
  Workaround: Disable the remote logging option from the vRealize Operations Manager user interface before you modify the `loginsight-agent` file. Do not save the changes again from the user interface when you use the content pack for Log Insight.

- **Projects and workload placement do not acknowledge disk I/O and network I/O**
  Projects do not impact disk I/O and network I/O metrics. The placement plan might include placing virtual machines on hosts with high disk I/O or network I/O workload, or datastores with high disk I/O workload.
  Workaround: None

- **The Network Share plug-in cannot work with path that contains non-ASCII characters**
  If the path in your Network Share plug-in contains non-ASCII characters the connection might fail.
  Workaround: None

User Interface Issues

- **The filter menus in Policies workspace step Collect Metrics and Properties do not work correctly**
  When you deselect an option from the State, KPI, or DT drop-down menus, the filter hides all attributes no matter of their settings.
  Workaround: Save and reopen the policy.

- **A PDF report file might not include all data from a widget that has a scrollbar**
  When you generate a report that contains a custom dashboard with a widget that has a scrollbar, the downloaded PDF file might not include all data of the widget.
  Workaround: Increase the height of the widget in the dashboard to fit all the data.

Endpoint Operations Management Agent Issues

- **vRealize Operations Manager Monitoring a Large Scale Environment is not Performing as Expected**
  If you have a large scale vRealize Operations Manager monitored environment, you may experience one or more of the following issues:
  - The user interface is responding slowly
  - Metrics are slow to be displayed

Workaround: Determine the areas of the environment in which the latency is greater than 20 milliseconds and install a remote collector in those areas.