

# vRealize Operations Manager 7.0 Release Notes

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VMware vRealize Operations Manager Appliance 7.0 | 20 September 2018 | Build 10098133

VMware vRealize Operations Manager 7.0 PAK Updates | 20 September 2018 | Build 10098132

VMware vRealize Operations Manager 7.0 Endpoint Operations Agents | 20 September 2018 | Build 9957520

VMware vRealize Operations Manager 7.0 Endpoint Operations Agents PAK Updates | 20 September 2018 | Build 10155118

VMware vRealize Operations Manager 7.0 Pre-Upgrade Assessment Tool | 20 September 2018 | Build 10047454

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](#)
- [Known Issues](#)

## What's New

### **New** Patch to Address a Security Advisory

vRealize Operations Manager has a local privilege escalation vulnerability because of improper permissions of support scripts. On a machine that has vRealize Operations Manager installed, attackers with shell access of the admin user may exploit this issue to elevate their privileges to root. The Common Vulnerabilities and Exposures project (cve.mitre.org) has assigned the identifier [CVE-2018-6978](#) to this issue. For more information, see [VMSA-2018-0031](#). To address this issue, install the public patch documented in [KB 60301](#).

### Product Enhancements

The vRealize Operations Manager 7.0 release focuses on performance optimization, capacity management, and intelligent remediation with the support of multiple clouds, additional compliance support, and enhanced Wavefront integration. Here are the key features and capabilities:

## Continuous Performance Optimization

- Fully automated workload balancing across clusters based on business intent, such as utilization, compliance, and license cost.
- Integration with vRealize Automation for initial and ongoing workload placement.
- Host-based placement to automate DRS, based on business intent and workload placement within a cluster.
- Ability to detect and remediate placement tag violations defined in the business intent.
- Workload optimization history replays the historical optimization run manually, through schedules, or for those that are fully automated using the new Automation option.
- New workflows for rightsizing undersized and oversized workloads to ensure performance and efficiency.

## Efficient Capacity Management

- Enhancements to capacity analytics for calendar awareness.
- Smarter data weightage capabilities to give more weightage to recent capacity changes without losing periodicity.
- Enhanced capacity reclamation workflows with easy access to historical capacity utilization.
- Enhanced what-if scenarios for adding new workloads using tags, custom groups, folders, and so on.
- New what-if scenarios for hardware procurement planning and cloud migration planning.

## Intelligent Remediation

- Support of multiple clouds such as SDDC, AWS, and VMware Cloud on AWS.
- Support for PCI, HIPAA, DISA, CIS, FISMA, and ISO Security.
- Object level Workload tab for a simple breakdown of resource utilization.
- Enhanced Wavefront integration for application monitoring and troubleshooting.
- Ability to visualize vRealize Operations Manager alerts and metrics in vRealize Automation. You can visualize KPIs for each workload in the deployment.

## Dashboard and Report Enhancements

- Simplified dashboard creation with an intuitive canvas and multiple out-of-the box widgets and views.
- Ability to create four-column dashboards with a unified widget editor and the ability to set cross dashboard interactions as well as interactions within dashboards.
- Ability to share dashboards using URLs without login requirements. Sharing options include copy, email, or embedded URLs in other websites with embedded code generated using vRealize Operations Manager.
- Ability to track URL usage and revoke URL access using manage dashboard capabilities.
- Ability to transfer dashboard ownership to other users.

- Options to manage content such as dashboards and report schedules for a deleted user, using the new Orphaned Content page.
- Enhanced Getting Started dashboard with access to a community managed dashboard repository.

## Platform Enhancements

- Support for cross vCenter vMotion. The ability to move VMs across vCenters. vRealize Operations Manager will retain the history of the VMs if both the vCenters are managed by the same instance.
- New search options to search and launch content such as dashboards, views, supermetrics, alerts, and so on.
- Support for properties in supermetrics with new functions and operators.
- Option to enable SSH on vRealize Operations Manager nodes within the admin user interface.
- New admin password recovery options in the admin user interface.
- Ability to set up NTP settings in the admin user interface.
- Enhanced integration with VMware Identity Manager with options to import user groups.
- Ability to execute actions from the Alerts page using the new Actions option.
- Ability to delete canceled alerts from the Alerts page to purge the alerts database.
- Options to define application costing to include in virtual machine cost.
- Ability to export vRealize Business cost configuration and import it in vRealize Operations Manager.

## Widget and Views Enhancements

- New scoping option in the view toolbar to select the scope for all the views such as List, Summary, Trend, Distribution, and so on.
- Enhanced pie and bar-chart distribution views to provide distribution data.
- Option to set the limit for the number of rows to be displayed in the List view for improved reporting.
- Option to create calculations in views using the new Expression transformation.
- Ability to set thresholds in Trend views and in the Metric Chart widget.
- Option to add hyperlinks in the Scoreboard widget columns for cross dashboard or web-page navigation.
- Enhanced Alert List widget with the ability to filter for alerts with actions and the ability to run actions from the widget.

## Metrics and Properties Enhancements

The following KB article describes all the metrics and properties which have been added in vRealize Operations Manager 7.0:

[Metrics added in vRealize Operations Manager 7.0 \(58843\)](#)

**Supported Management Packs and Compliance Packs:**

- The VMware Management Packs and Compliance Packs supported with vRealize Operations Manager 7.0 are:
  - vRealize Operations Management Pack for OpenStack 5.0
  - vRealize Operations Management Pack for AWS 3.0
  - VMware vRealize Operations Federation Management Pack 1.0.1 and above
  - VMware vRealize Operations Management Pack for vCloud Director 5.0
  - vRealize Operations Management Pack for Container Monitoring 1.2
  - vRealize Operations Management Pack for Storage Devices 7.0
  - vRealize Operations Management Pack for vRealize Orchestrator 2.0
  - vRealize Operations SDDC Management Health Management Pack 5.0
  - vRealize Operations Management Pack for VMware Cloud Provider Pod 1.0
  - vRealize Operations Compliance Pack for ISO 1.0
  - vRealize Operations Compliance Pack for DISA 1.0
  - vRealize Operations Compliance Pack for CIS 1.0
  - vRealize Operations Compliance Pack for FISMA 1.0
- The 3rd party authored Management Packs that are supported with 7.0 are listed in the [VMware Compatibility Guide](#).

For more information on these enhancements, see the [vRealize Operations Manager 7.0 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. This 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 7.0 with VMware virtual appliance.

**Note:** If you are running a Linux-based instance of vRealize Operations Manager, you can upgrade to vRealize Operations Manager 7.0. For upgrade details see the [Interoperability Matrix](#). **IMPORTANT:** vRealize Operations Manager 7.0 is the last version of the product to support RHEL upgrade.

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 and 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. In order to collect inter-node communication statistics (ping latency and packet loss) on RHEL, follow the instructions in [KB 52360](#).

## Applying License Keys

**IMPORTANT:** vRealize Operations Manager 7.0 is a major version that requires a new license key. All license keys except vSOM Enterprise Plus and its add-ons are invalidated. The product will work in evaluation mode until a new valid license key, which can be obtained from the MyVMware portal, is installed. After you log in to the user interface of vRealize Operations Manager, if you see that you are using an evaluation license, consider applying for a new license before the end of the 60-day evaluation period.

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.

You can install multiple Advanced and Enterprise editions in the same vRealize Operations Manager deployment. You 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:

**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. To be compliant, you need enough licenses to cover average powered-on VMs over trailing 365 days.

The vRealize Operations Standard edition does not entitle you to create or edit views, dashboards, super metrics and reports, automated actions, and business intent based automated and schedulable workload balancing. This functionality was enforced by EULA in previous editions of vRealize Operations. With vRealize Operations 7.0, this functionality is enforced through the user interface and not just the EULA. For more details on entitlement, please see the Edition Compare table from the following link: <https://www.vmware.com/products/vrealize-operations.html>.

**Note:** For details about the removal of vRealize Configuration Manager from vRealize Operations Advanced/Enterprise, see [KB 56957](#).

## SDDC Compliance

To ensure compliance of your vSphere 6.7, 6.5, 6.0, and 5.5 objects, vRealize Operations Manager 7.0 includes compliance alerts for [VMware vSphere Hardening Guide versions 6.5, 6.0, and 5.5](#). These hardening guide alerts are based on the corresponding object type.

## Solutions Support

In addition to the VMware solutions (vSphere, Endpoint Operations Management, and vRealize Log Insight), see the [Solution Exchange](#) marketplace for many more solutions. These solutions work with Virtual Appliance single or multiple node, and 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

**Note:** **New** vRealize Operations for Horizon 6.6.0 is only compatible with vRealize Operations Manager 7.0 with the security patch installed. See [KB 59651](#) for more information. The [VMware Product Interoperability Matrix](#) provides details about the compatibility of vRealize Operations Manager with VMware products.

## Browser Support

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

- Google Chrome: Version 67 and 68
- Mozilla Firefox: Version 61 and 62
- Microsoft Internet Explorer: Version 11
- Microsoft Edge 16
- Safari 10 and 11

## Installing and Updating vRealize Operations Manager

Unless upgrading from vRealize Operations Manager 6.7, it is highly recommended that you run the Pre-Upgrade Assessment tool. A pre-upgrade assessment report that is generated will provide you with the recommended replacements. This tool provides you with an impact analysis following the reduction of metrics that was introduced in version 6.7 of vRealize Operations Manager. For more details on using the the Pre-Upgrade Assessment Tool, see [KB 57283](#).

Refer to the [vRealize Operations Upgrade Center](#) that has information about upgrading vRealize Operations. Refer to the [VMware Lifecycle Product](#)



[Matrix](#) for information about supported versions of vRealize Operations Manager.

When upgrading vRealize Operations Manager, you might need to use a two-step upgrade sequence. See the following list for details on upgrade approaches for different versions:

- From versions earlier than 6.7, run the Pre-Upgrade Assessment tool and then upgrade to version 7.0.
- From version 6.7, upgrade directly to version 7.0.

After upgrading, it is necessary to update Endpoint Operations agents. For more information, see [KB 2137709](#) and [KB 2138748](#).

The [vRealize Operations Manager Information Center](#) has detailed information about [installation](#) and [software updates](#).

Refer to the [vRealize Operations Manager vApp Deployment and Configuration Guide](#) that provides guidance for a vRealize Operations Manager virtual appliance, before you install or update vRealize Operations Manager:

Upgrading to vRealize Operations Manager 7.0, resets out-of-the-box content as part of the 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 are overwritten. You need to clone or backup the content before you upgrade to vRealize Operations Manager 7.0.

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 can also install vRealize Operations Manager by using vRealize Suite Lifecycle Manager. For more information, see [Creating an Environment](#). To automate installation, configuration, upgrade, patch, configuration management, drift remediation and health from within a single pane of glass, you can use vRealize Suite Lifecycle Manager. If you are a new user, click here to install [vRealize Suite Lifecycle Manager](#). This provides IT managers or cloud admin resources to focus on business-critical initiatives, while improving time to value (TTV), reliability, and consistency.

See the [Installation and Upgrade Issues](#) section for issues related to installing vRealize Operations Manager or updating the software.

## Known Issues

The known issues are grouped as follows.

- [Installation and Upgrade Issues](#)
- [General Issues](#)
- [User Interface Issues](#)

## Installation and Upgrade Issues

- **Upgrade might fail if any of the nodes are running on VMs with US/Pacific-New timezone**

PostgreSQL database systems no longer support the US/Pacific-New timezone, which was just an alias for America/Los\_Angeles timezone. If any of the vRealize Operations Manager nodes are running on VMs with US/Pacific-New timezone, upgrade might fail.

**Workaround:** Change VM timezones from US/Pacific-New to America/Los\_Angeles, and then upgrade.

- **Some object alerts are not enabled after upgrading to the current release of vRealize Operations Manager**

After users upgrade to version 7.0 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.

## General Issues

- **Compliance for vCenter Server workloads on VMware Cloud on AWS is not supported in vRealize Operations Manager 7.0**

If you enable the **vSphere Hardening Guide Alerts** option when you configure a vCenter adapter instance in vRealize Operations Manager, compliance results for vCenter Server workloads on VMware Cloud on AWS will be inaccurate.

**Workaround:** Keep the **vSphere Hardening Guide Alerts** option disabled when you configure the vCenter adapter instance in vRealize Operations Manager 7.0.

- **Cost is not computed for a VMware Cloud vCenter Server endpoint in vRealize Operations Manager 7.0**

In vRealize Operations Manager 7.0, when you add a VMware Cloud vCenter Server endpoint and specify the cloud type as **VMware Cloud on AWS**, cost is not computed for the VMware Cloud vCenter Server endpoint. However, if you add a VMware Cloud vCenter Server without



specifying the cloud type as **VMware Cloud on AWS**, then the cost is computed.

**Workaround:** In vRealize Operations Manager 6.7, if you specified the VMware Cloud vCenter Server cloud type as **VMware Cloud on AWS**, then after you upgrade to vRealize Operations Manager 7.0, you must manually set the cost per server for the VMware Cloud vCenter Server hardware groups to zero.

- **Interactions in a distribution type of view, work only for the Current type of transformation**

When you create a distribution type of view and select a transformation type that is not **Current**, the list view is not displayed.

**Workaround:** Change the selected metric transformation to **Current** to see the list view. You can add the same metric as an additional column with a relevant transformation (for example, maximum) and view the result of the transformation in the list view.

- **Alerts from the vSAN adapter that correspond to vSAN health check tests are not canceled if the test is removed from the vSAN Health Service.**

vRealize Operations Manager cannot detect and cancel deleted alerts.

**Workaround:** Manually cancel the alert from the user interface of vRealize Operations Manager.

- **Memory|Usage % metric might show as 97-100%**

Memory|Usage % might show as 97-100% on some objects in vRealize Operations Manager 6.7 and later versions.

**Workaround:** See [KB 55675](#).

- **When using Internet Explorer 11 to access the Log Insight tab pages and dashboards, the data is blocked**

When using Internet Explorer 11 to access the Log Insight tab pages and dashboards, data is blocked and the page remains blank.

**Workaround:** Use the Firefox or Chrome browser.

- **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

- **Updated 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.

## User Interface Issues

- **Cluster management shows that HA is enabled when the process of enabling HA is still in progress**

Data synchronization takes some time depending on the number of objects.

**Workaround:** None

- **The Last Year option in the date picker is not intuitive**

The Last Year option in the date picker indicates that the time range starts from the end of the previous month and goes back a year. It does not indicate a time range that spans one year from the current date or the whole previous year.

**Workaround:** None

- **The filter menus in the Policies workspace step called 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 irrespective 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 the data in the widget.

**Workaround:** Increase the height of the widget in the dashboard to fit all the data.

- **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.

**Workaround:** Not required. The snapshot removal process continues to progress to completion on vCenter Server.