

vRealize Operations Manager 6.6.1 Release Notes

Last Updated 12/18/2018

VMware vRealize Operations Manager Appliance 6.6.1 | 08 August 2017 | Build 6163035

VMware vRealize Operations Manager 6.6.1 PAK Updates | 08 August 2017 | Build 6163041

VMware vRealize Operations Manager 6.6.1 Endpoint Operations Agents | 08 August 2017 | Build 6091118

VMware vRealize Operations Manager 6.6.1 Endpoint Operations Agents PAK Updates | 08 August 2017 | Build 6178617

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
- Product Support Notices
- Dashboard Support Notice
- Resolved Issues from Previous Releases
- Known Issues from Previous Releases

What's New?

This release resolves performance and other issues that are documented in the Resolved Issues section.

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](https://cve.mitre.org/cve/2018/6978) to this issue. For more information, see [VMSA-2018-0031](https://www.vmware.com/security/vmsa-2018-0031). To address this issue, install the public patch documented in [KB 60301](https://www.vmware.com/support/patches/opsmanager/opsmanager-60301.html).

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 6.6.1 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 6.6.1.

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.

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.

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:

- 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. 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 6.6.1 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 [Solution Exchange](#) marketplace for many more solutions. These solutions work with Virtual Appliance single or multiple nodes, 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

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

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

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 59 and 58
- Mozilla Firefox: Version 55 and 54
- Microsoft Internet Explorer: Version 11

Installing and Updating vRealize Operations Manager

Note: If you are upgrading older versions of vRealize Operations Manager (6.0.x or 6.1) must use a two-step upgrade: First upgrade to vRealize Operations Manager 6.3.1 and then upgrade to vRealize Operations Manager 6.6.1. If you have a recent version of Realize Operations Manager (6.6, 6.5, 6.4,

6.3.1, 6.3, 6.2.1, or 6.2), you can upgrade directly to vRealize Operations Manager 6.6.1.

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 you install or update vRealize Operations Manager:

Upgrading to vRealize Operations Manager 6.6.1, 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 6.6.1.

The vRealize Operations Manager NGC plugin for the vSphere Web Client was removed in vRealize Operations Manager 6.6.

Note: In Known Issues from Previous Releases, see the Installation and Upgrade Issues section for issues related to installing vRealize Operations Manager or updating the software.

Product Support Notices

vRealize Infrastructure Navigator

VMware recently disclosed a security vulnerability with vCenter Server VIX API [VMSA-2017-0012](#) that impacts vRealize Infrastructure Navigator. If a fix is applied to the security vulnerability, vRealize Infrastructure Navigator will no longer work because of lack of access to Guest OS information. To prevent further potential security issues, vRealize Infrastructure Navigator will be removed from the download starting with vRealize Operations 6.6.1. In addition, vRealize Infrastructure Navigator will also reach End-Of-Distribution (EOD) and End-of-Support-Life (EOSL) when the vSphere security patch is released. For more information, refer to [KB 2151075](#).

vSAN Management Pack

vSAN Management Pack 1.0 is not compatible with vRealize Operations 6.6 and later. vRealize Operation 6.6 or later provides support for native vSAN monitoring, performance, troubleshooting and capacity management. You should not use the following default dashboards for native vSAN management with your license of vRealize Operations Standard, unless you upgrade to VMware vRealize Operations Advanced or VMware vRealize Operations Enterprise:

- Troubleshoot vSAN dashboard
- vSAN Capacity Overview dashboard

To be complaint with licensing restriction in vRealize Operations Standard edition, you must disable the above mentioned two dashboards. To disable dashboards:

1. Login to vRealize Operations Manager with Administrator Privileges.
2. In the menu, click **Dashboards**, and select **Actions > Manage Dashboards**.
3. Search for the Troubleshoot vSAN dashboard, select the dashboard, and click the **Action** menu to disable.
4. Search for the vSAN Capacity Overview dashboard name, select the dashboard, and click the **Action** menu to disable.

Dashboard Support Notice

vRealize Operations Manager 6.6.x, includes new out-of-the-box dashboards to meet frequent operational use cases. As the new dashboards have improved functionality and better use case coverage, the following old dashboards are deprecated and disabled:

- Classic Dashboard
- Diagnose
- Recommendation
- vSphere
- Workload Utilization
- vSphere VMs Memory
- vSphere VMs CPU
- vSphere VMs Disk and Network
- vSphere VMs CPU
- vSphere Capacity Risk
- vSphere VMs Configuration Summary
- vSphere Host Configuration Summary
- vSphere Cluster Configuration Summary
- vSphere DRS Cluster Settings

If you choose to keep any of the above listed dashboards, you need to clone the dashboard and create a copy for your usage. These dashboards can be enabled from the **Manage Dashboards** menu. Since these dashboards are deprecated, they will be removed in future releases of vRealize Operations Manager.

Resolved Issues from Previous Releases

This section contains issues that were resolved in previous releases:

- The Total Reclamation Opportunity widget in the Capacity Overview dashboard now displays the correct Reclaimable Capacity metric value.
- Issues with vSAN adapter not discovering objects, if the total number of Clusters, Hosts and Datastores in the vCenter Server running vSAN data is either equal to 100 or greater than 200, is resolved.
- The VM percentage metric values for the idle, wait, system, iowait, and swapwait metrics is corrected.
- Issues with View rendering where resource and aggregation filtering options have both been set, is resolved.

- Issues with report generation for reports created in earlier versions is resolved.
- Improved Cluster resilience in case of packet drop spikes in the network.
- Intermittent End Point Operations adapter install/upgrade failures are resolved.
- The vSAN World object shows the correct number of VMs using vSAN datastore.
- vRealize Operations user interface displays correct information when custom attribute is updated directly in vCenter Server.
- Imported vIDM user preserves all assigned groups.
- Users can enter FQDN as part of the vIDM redirect URL.
- The issue with empty Cassandra file is resolved.
- Only vSAN enabled host are counted in the vSAN World object.
- Intermittent REST authentication issues are fixed.
- vSphere tags are no longer cleared if tag query fails.
- Negative values for some of the metrics of the vSAN adapter are corrected.
- Resolves issues with vRealize Operations Manager's registration to vCenter Server, and allows for correct interoperability with other products, such as vRealize Business for Cloud and UsageMeter. If vRealize Operations Manager 6.6 is upgraded to 6.6.1, implement the Register vCenter Server operation again for all existing vCenter Adapter instances from vRealize Operations Manager.

Known Issues from Previous Releases

This section contains known issues from previous releases:

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

Installation and Upgrade 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.
- **Upgrade endpoint operations agent after upgrading the product.**
Customers must upgrade the vRealize Operations product to 6.6.1 before upgrading the endpoint operations agent to 6.6.1.
Workaround: Customers should consult [KB 2138748](#) and [KB 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.

- **The "Reset default content" checkbox in the "Select Software Update" section does not work correctly.**

Customers who are upgrading to 6.6.1 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 $(\text{Demand} + \text{Overhead}) \div (\text{Provisioned Capacity})$.
- 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 $(\text{Demand} + \text{Overhead}) \div (\text{Entitlement})$.

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 6.6.1 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

- **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 display 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

- **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.

- **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 Policies.
- 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

- **Error messages might appear during initial setup of nodes**

During vRealize Operation Manager 6.6.1 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.

- **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.