



# VMware vCloud Usage Meter 3.6 Release Notes

VMware vCloud Usage Meter 3.6 | 13 JUL 2017 | Build 5967943

Check for additions and updates to these release notes.

## What's in the Release Notes

These release notes cover the following topics:

- [What's New](#)
- [Product Documentation](#)
- [Supported Browsers](#)
- [Upgrade](#)
- [Resolved Issues](#)
- [Known Issues](#)

## What's New

vCloud Usage Meter 3.6 provides advanced metering for VMware NSX, vSAN, and vRealize Operations Manager, introduces metering of vCloud Availability for vCloud Director, and offers vital operational improvements.

### Metering NSX

vCloud Usage Meter 3.6 automatically detects NSX editions based on features usage at *per VM granularity*, allowing you to grow and pay for NSX usage based on end user demand.

The **Unit of Measure** in the **Monthly Usage Units** section of the **Monthly Usage** report is changed from *Number of VMs* to *Average Number of VMs*.

### Metering vSAN

vCloud Usage Meter 3.6 detects vSAN features that are consumed and determines the billing rate for vSAN usage automatically. vCloud Usage Meter 3.6 meters vSAN usage per vSAN enabled cluster. A new Cluster History report provides history data for all vSAN enabled clusters. The data in this report includes used capacity in MB, on and off statuses of vSAN features such as *Stretched Cluster*, *IOPS Limit*, *Deduplication*, and *Erasure Coding* for the entire reporting month.

## Metering vRealize Operations Manager

vCloud Usage Meter 3.6 supports *service-provider-hosted* vRealize Operations Manager managing tenant infrastructure architectures. When metering vRealize Operations Manager consumption, vCloud Usage Meter 3.6 calculates average number of powered on virtual machines.

## Automatic Reporting

vCloud Usage Meter 3.6 automatically generates and sends reports to VMware. You can also configure vCloud Usage Meter to generate and send reporting sets to yourself, an aggregator, or elsewhere.

When you first log in to the vCloud Usage Meter 3.6 Web application, you get a pop-up window containing the terms and conditions of the automatic reporting to VMware. If you do not accept the terms and conditions, vCloud Usage Meter cannot be used. vCloud Usage Meter 3.6 encrypts all reports and obfuscates customer sensitive data before submitting the reports to VMware.

## Operational Improvements

vCloud Usage Meter 3.6 provides the following improvements:

- Upgraded operating system, incorporating fixes to known security vulnerabilities and increased metering scale.
- Updated multiple open source components to resolve CVE-2017-1000364, CVE-2017-1000365, and CVE-2017-1000367.
- For added security, only TLS 1.2 and TLS 1.1 versions are enabled. By default, TLS 1.0 is disabled in vCloud Usage Meter 3.6. You cannot enable any other TLS versions. When interfacing with vCloud Usage Meter, ensure that your Web Browser supports TLS 1.2 or TLS 1.1.
- Expanded API support.
- Wider metering capabilities.
- Improved upgrade by retaining metering data during migration that offers full flexibility in scheduling maintenance windows. You can upgrade from vCloud Usage Meter 3.5.
- In vCloud Usage Meter 3.6, all *ESXi vSphere Evaluation Mode* licenses are metered as *vSphere Enterprise Plus* by default. You can change the billing category of the license to *demo* in the vCloud Usage Meter Web Application.

## Product Documentation

In addition to the current release notes, you can use the documentation set for vCloud Usage Meter 3.6 that includes the following deliverables.

- [vCloud Usage Meter 3.6 User's Guide](#)
- [Interoperability Pages for vCloud Usage Meter 3.6](#)
- [vCloud Usage Meter 3.6 API Reference](#)
- *vCAN Product Usage Guide* in Partner Central at <https://www.vmware.com/partners.html> (login required)

# Supported Browsers

The vCloud Usage Meter 3.6 Web application is compatible with the following Web browsers:

- Google Chrome
- Mozilla Firefox
- Microsoft Edge
- Microsoft Internet Explorer
- Safari

vCloud Usage Meter 3.6 is tested against the following Web browser versions. You can use older versions.

## Windows

### Windows 10

- Microsoft Internet Explorer 11.576.14393
- Microsoft Edge 25.10586.672.0

### Windows 8.1

- Mozilla Firefox 52.0

### Windows 7

- Google Chrome 58.0.3029.110

## OS X Yosemite

- Mozilla Firefox 35.0.1
- Google Chrome 59.0.3071.115
- Safari 9.0.1 (10601.2.7.2)

## Linux

### Ubuntu 14.04.5

- Google Chrome 59.0.3071.115 (64-bit)

## Upgrade

vCloud Usage Meter 3.6 is installed as a new appliance. You can migrate data to vCloud Usage Meter 3.6 from vCloud Usage Meter 3.5.

You can migrate configuration and metering data from vCloud Usage Meter 3.5 and then use the new vCloud Usage Meter 3.6 instance to report usage for the month, in which the installation takes place.

The migrateum operation exports the dbdump from the source vCloud Usage Meter and then

imports it to the target instance. There are conversion processes for NSX, vSAN and vRealize Operations Manager. Exporting and importing the dbdump, and conversion processes are time-consuming operations. If your vCloud Usage Meter 3.5 instance does not have NSX, vSAN and vRealize Operations Manager added for metering, the time to complete the migration decreases. Other factors that might affect the time to complete the migration are network, virtual environment, and storage. Based on test results, the migrateum execution time varies from three minutes to ten minutes.

## Resolved Issues

- **After upgrading products that vCloud Usage Meter is metering, if the upgrade includes a certificate update, the upgraded products disappear from the Manage Products page in the Web Application**

This issue is fixed.

- **vCloud Usage Meter cannot connect to products that have TLS 1.0 disabled by default**

This issue is fixed.

## Known Issues

The following known issues have been discovered through rigorous testing and will help you understand some behavior you might encounter in this release.

The known issues are grouped as follows.

- [General](#)
- [Migration](#)
- [Reporting](#)

### General

- **NEW vCloud Usage Meter 3.6.1 VM with static IP cannot power on**

After you deploy vCloud Usage Meter 3.6.1 appliance with static IP on vCenter Server 6.7 through the vSphere Client, you cannot power on your vCloud Usage Meter 3.6.1 VM.

**Workaround:** Deploy vCloud Usage Meter 3.6.1 with static IP by using vSphere Web Client.

- **The vCloud Usage Meter file system switches to read-only due to a file system timeout**

This issue occurs when the vCloud Usage Meter Appliance is installed in a SAN-based datastore.

**Workaround:** To work around this issue, you can increase the timeout value. For more information about increasing the disk timeout values, see

<http://kb.vmware.com/kb/1009465>.

- **Site Recovery Manager issues:**

- Site Recovery Manager collections fail with `fault.drextapi.fault.NoPermission.summary` error.

- Site Recovery Manager does not appear correctly on the **Manage > Products** page. Both issues indicate Site Recovery Manager login is not properly configured.

**Workaround:** If you are using SSO, see <http://kb.vmware.com/kb/2124935> for more information about resolving SSO pairing issues.

If you are affected by the issue without using SSO, verify that the Site Recovery Manager is configured properly. For more information, see [Site Recovery Manager Installation and Configuration](#) in the *VMware vCenter Site Recovery Manager Documentation Center*.

- **You might notice duplicated customers in the Customers tab of the vCloud Usage Meter Web application**

When you add a vCloud Director for metering, vCloud Usage Meter detects and creates customers using the vCloud Director organizations information in an *organization name (organization ID)* format. If you modify such customer names, vCloud Usage Meter detects that there is a new organization and creates a new customer.

**Workaround:** Do not change automatically generated vCloud Director customer names.

- **vCloud Usage Meter cannot discover vRealize Operations Manager 6.6**

vRealize Operations Manager 6.6 does not include a vSphere Web Client plugin. As a result, vRealize Operations Manager does not register itself as a plugin to the associated vCenter Server and is not present in the extension manager of the vCenter Server. When you add a vCenter Server to be metered, vCloud Usage Meter is not able to discover the associated vRealize Operations Manager.

**Workaround:** None.

- **vRealize Operations Manager collections fail**

**Workaround:** When adding a new vRealize Operations Manager, accept the certificate before providing the required credentials.

- **Not able to view any reports and license key sets in the Reports page of the web application after deleting old data**

**Workaround:** To work around this issue, restart the vCloud Usage Meter appliance.

- **In the vCloud Usage Meter 3.6 Web application, you might notice a wrong version number for vRealize Operations after upgrading to vRealize Operations 6.6**

You upgrade your vRealize Operations to version 6.6. You add the associated vCenter Server to vCloud Usage Meter 3.6 and vRealize Operations is detected, and you can see the vRealize Operations server details and the correct product version 6.6. In the vCloud Usage Meter 3.6 Web application, when you click **Rebuild** in the vRealize Operations Manager section, the vRealize Operations product version changes to the previous vRealize Operations version, for example vRealize Operations 6.5.

**Workaround:** To work around this issue, wait until the next successful collection. The accurate vRealize Operations Manager version is displayed after a successful collection.

- **Products that you add or reactivate are not displayed in the products list in the vCloud Usage Meter 3.6 Web application**

After you add or reactivate products in the vCloud Usage Meter 3.6 Web application, these

products do not appear in the products list in the **Manage > Products** tab.

**Workaround:** To work around this issue, refresh the page in your web browser.

- **When you log in to the vCloud Usage Meter console, you see a blue screen and a BUG: soft lockup detected on CPU#1 error message**

Linux kernels have a soft lockup watchdog thread and report soft lockup messages if a watchdog thread does not get scheduled for more than 10 seconds. When running in a virtual machine, this error indicates high levels of overcommitment. The soft lockup messages are not kernel panics and generally appear when the virtual machine is using a large amount of its resources.

**Workaround:** To work around this issue, you can adjust the soft lockup threshold. You must edit the `/proc/sys/kernel/watchdog_thresh` file for latest kernels, or the `/proc/sys/kernel/softlockup_thresh` file for older kernel versions. For more information, see <http://kb.vmware.com/kb/1009996>.

- **When configuring email settings in the vCloud Usage Meter 3.6 Web application, you may see an error accompanied with an error message in the log**

The email you enter in the **Manage > Provider** tab of the Web application is used as the From address for sending emails to VMware. If you enter an email address that is not present in the allowlist of your email server, you receive an error message accompanied with an Relay access denied error message in the log.

**Workaround:** To work around this issue, ensure that the email address that you enter when you configure your service provider details is known to the mail server. When you configure your service provider details, enter an email address that is present in the allowlist of your email server.

- **vCenter Server data collection using a user with the default read-only privileges fails with the following error message in the log files:**

ERROR [Collector ] vc.VCenterCollector: com.vmware.pbm.RuntimeFaultFaultMsg

**Workaround:** To work around this issue, do the following:

1. Login in to the vSphere Web Client.
2. Navigate to **Administration > Roles**.
3. Click the **Create role** button.
4. Type a name for the new role.
5. Select the following permission:  
Profile-driven storage > Profile-driven storage view
6. Assign the new role to the user which is used for vCloud Usage Meter collection.

## Migration

The following issues might be observed after migration to vCloud Usage Meter 3.6.

- **You might notice difference in total vSAN capacity usage between reports generated**

### **from vCloud Usage Meter 3.5 and vCloud Usage Meter 3.6**

After migration to vCloud Usage Meter 3.6, vSAN Enterprise usage data collected from vCloud Usage Meter 3.5 is converted to vSAN Standard. Normally, after adding up the usage in all categories, the vSAN reports should match between vCloud Usage Meter versions 3.5 and 3.6. You might observe the issue when you change the vSAN License from one category to another. Due to the way vCloud Usage Meter 3.5 reports vSAN usage, vCloud Usage Meter might count the cluster with changed vSAN license category as two different clusters. As a result, you might notice that the total vSAN usage that vCloud Usage Meter 3.5 reports is higher than the same usage in vCloud Usage Meter 3.6.

**Workaround:** To work around this issue, use the vCloud Usage Meter 3.6 data to report vSAN usage to VMware in the month when you change vSAN licenses from one category to another.

- **After migration to vCloud Usage Meter 3.6 vSAN Enterprise category is missing from the vCloud Usage Meter 3.5 reports and the vSAN Enterprise usage is added to the vSAN Standard category in the vCloud Usage Meter 3.6 reports**

In vCloud Usage Meter 3.5, vSAN reports are organized by license. vCloud Usage Meter 3.5 reports vSAN Standard, vSAN Advanced, and vSAN Enterprise licenses. You can migrate old vSAN Standard and vSAN Advanced consumption data without any issues.

vCloud Usage Meter 3.6 reports vSAN Enterprise usage depending on the features that you use. Because of the vSAN feature detection, vCloud Usage Meter 3.6 reports usage of vSAN Enterprise under one of the following four categories depending on the features that you use:

- vSAN Standard
- vSAN Advanced
- vSAN Standard with Add-on
- vSAN Advanced with Add-on

vCloud Usage Meter 3.6 cannot detect use of features for previous periods and vSAN Enterprise usage reported in vCloud Usage Meter 3.5 is mapped to vSAN Standard in vCloud Usage Meter 3.6. As a result, you might notice a difference between vSAN reports generated from vCloud Usage Meter 3.5 and vCloud Usage Meter 3.6.

**Workaround:** You have the following two options to work around this issue:

- Migrate vSAN data to vCloud Usage Meter 3.6 within the first three days of the month.
- Do not compare vSAN reports from vCloud Usage Meter 3.5 to the vSAN reports that vCloud Usage Meter 3.6 generates.

- **NSX Advance and Base standalone reports are lost after migration to vCloud Usage Meter 3.6**

In vCloud Usage Meter 3.6, standalone reporting is supported only for NSX Enterprise edition. You cannot report NSX Advance and Base editions as a standalone. This is applicable to both new metering data and migrated metering data. The usage values are consolidated or added into NSX Enterprise usage. The NSX Enterprise standalone usage includes all values from NSX Base, NSX Advanced, and NSX Enterprise editions.

**Workaround:** None.

- **Migrating NSX Standalone reporting data sometimes migrates stale NSX bundle reporting data**

If the **Report NSX usage as standalone** check box is selected, when you start migrating your data, in rare cases vCloud Usage Meter 3.6 might report stale NSX bundles after the migration completes.

**Workaround:** To work around this issue, do the following:

1. In the vCloud Usage Meter 3.6 Web Application, navigate to **Manage > Reports**.
2. Deselect the **Report NSX usage as standalone** check box.
3. Click **Save**.
4. Click **Reports** in the top right menu bar.
5. Select **Monthly Usage** from the **Report** drop-down.
6. Click **Browse**.
7. Navigate to **Manage > Reports**.
8. Select the **Report NSX usage as standalone** check box again.
9. Click **Save**.

You have removed the NSX bundles data from the Monthly Usage report.

- **After migration, the Monitor page and collector log report a vRealize Automation license issue**

After you migrate your data to vCloud Usage Meter 3.6, you receive the following error in the **Monitor** page and the collector log:

No license found in vRealize Automation cafe host: *vRealize-Automation-Hostname*

As a result, the vRealize Automation managed virtual machines count does not increase in the **Virtual Machines by Product Server** and **Monthly Usage Unit** of the **Monthly Usage report**.

**Workaround:** To work around this issue, do the following:

1. Migrate consumption data to vCloud Usage Meter 3.6.
2. In the vCloud Usage Meter 3.6 Web application, navigate to **Manage > Products**.
3. Click **Edit** next to the **vRealize Automation** instance that returns the license error.
4. Enter the credentials for that vRealize Automation Café appliance.
5. Click **Save**.
6. Run a collection.

- **Site Recovery Manager collection fails after migrating to vCloud Usage Meter 3.6**

After migrating configuration and measurements data to vCloud Usage Meter 3.6, you might receive an error message during Site Recovery Manager collections.

**Workaround:** To work around this issue, do the following:

1. In the vCloud Usage Meter Web application, navigate to **Manage > Products**.
2. Click **Edit** and **Save** for all vCenter Server instances with the Site Recovery Manager peer.

- **After migration to vCloud Usage Meter 3.6, you might notice lower numbers for vRealize Operations Manager in the Monthly Usage Report and Virtual Machine by**



## Product Server

There are two possible reasons for the decreased numbers.

- vCloud Usage Meter 3.5 calculates the unique maximum number of virtual machines, whereas vCloud Usage Meter 3.6 calculates average number of virtual machines.
- vCloud Usage Meter 3.5 calculates virtual machines that are both powered on and powered off, whereas vCloud Usage Meter 3.6 only calculates the virtual machines that are powered on.

**Workaround:** None.

## Reporting

The issues in this section pertain to the vCloud Usage Meter 3.6 reports.

- **Generating Monthly Usage Report fails with an error message due to an integer overflow**

If you run more than 858 NSX enabled virtual machines with the same NSX license for a month on a single vCenter Server, generating the Monthly Usage Report fails with the following error message:

Production of the Monthly Usage report has failed: org.postgresql.util.PSQLException: Bad value for type int.

**Workaround:** None.

- **If the vSAN Deduplication feature is turned on, you will see a difference between the Total Used Capacity in the vCloud Usage Meter reports and the vSAN Used - Total values in your vCenter Server Cluster**

This issue only affects vSAN versions 6.6 and 6.6.1, if the vSAN deduplication feature is turned on. For vSAN versions 6.2 and 6.5, metering is accurate even if the deduplication feature is turned on.

If the deduplication feature is turned off, metering of all supported vSAN versions is accurate.

**Workaround:** None

- **vCloud Director collection takes too long to complete**

If vCloud Director manages a large number of vApps, the vCloud Director collection takes too long to complete and may fail with the following error in the vCloud Usage Meter logs:

```
ERROR [Primary collection timer] collect.Collector: Collection didn't finish within 45 minutes.
java.util.concurrent.TimeoutException: Futures timed out after [45 minutes]
at scala.concurrent.impl.Promise$DefaultPromise.ready(Promise.scala:219)
at scala.concurrent.impl.Promise$DefaultPromise.ready(Promise.scala:153)
at scala.concurrent.Await$$anonfun$ready$1.apply(package.scala:86)
at scala.concurrent.Await$$anonfun$ready$1.apply(package.scala:86)
at scala.concurrent.BlockContext$DefaultBlockContext$.blockOn(BlockContext.scala:53)
at scala.concurrent.Await$.ready(package.scala:86)
at com.vmware.cloud.usgmtr.collect.Collector$.collectAll(Collector.scala:256)
```

**Workaround:** To work around the issue, using the vCloud Director cell management tool,

you can increase the value for the `maxPageSize` and allow requesting a page size greater than 128 lines. By default, `maxPageSize` is set to 128 lines per page.

For example, run the following command to allow requesting a 512 lines page:

```
./cell-management-tool manage-config -n restapi.queryservice.maxPageSize -v 512
```

For more information about the vCloud Director cell management tool, see chapter [Cell Management Tool Reference](#) in the *VMware vCloud Director 8.20 Documentation Center*.

- **Difference between vSAN reports for the current month that vCloud Usage Meter 3.6 and vCloud Usage Meter 3.5 generate**

In vCloud Usage Meter 3.5, vSAN usage is averaged over from the beginning of the reporting month to the end of the reporting month, or to the report generation moment - whichever is earlier in time. In vCloud Usage Meter 3.6, vSAN usage is always averaged over from the beginning of the reporting month, to the end of the same reporting month. The new vSAN usage calculation logic is more in line with the way vCenter Server reports RAM usage. As a result, the numbers in vCloud Usage Meter 3.5 reports are likely to remain closer to the final numbers reported for the entire month. In vCloud Usage Meter 3.6 reports, the numbers increase steadily from zero to the final monthly usage over the course of the whole month.

**Workaround:** Wait for the current reporting month to finish and generate the vSAN reports.

- **The Monthly Usage Report does not contain license and version information about vSAN enabled cluster**

If you remove a vCenter Server with vSAN enabled cluster from vCloud Usage Meter, you do not get the license and version information in the Monthly Usage Report for the same month.

**Workaround:** None.

- **Adding a vCenter Server that is using SSO service on an external Platform Service Controller (PSC) without providing addition PCS information results in inaccurate vSAN reporting**

vCloud Usage Meter 3.6 connects to vCenter Servers differently compared to previous vCloud Usage Meter versions. Earlier vCloud Usage Meter versions used direct logins to connect to a vCenter Server. vCloud Usage Meter 3.6 goes through an SSO server to obtain a token for further logging in to the vCenter Server instance. No additional actions are necessary from you, if the SSO server resides on the same system with the vCenter Server you are adding to vCloud Usage Meter. If the vCenter Server is using an SSO server on a PSC, and you do not enter the host IP of the PSC and the SSO port, vCloud Usage Meter cannot detect certain features of vSAN. As a result, vCloud Usage Meter 3.6 generates inaccurate vSAN reports.

**Workaround:** To work around this issue, do the following:

1. In the vCloud Usage Meter Web application, navigate to **Manage > Products**.
2. Click **Edit** next to vCenter Server.
3. Select the **External Platform Service Controller** check box.

4. Enter the **Platform Service Controller hostname** in the text box.
5. Enter the **Platform Service Controller port** in the text box. By default, vCloud Usage Meter uses port 7444.
6. Click **Save**.

- **The Monthly Usage Report does not contain license and version information for a renamed, vSAN enabled cluster**

If you change the name of a vSAN enabled cluster, the vSAN by vCenter Server section in the Monthly Usage Report for the month when the change occurs does not contain the license and version information for the old cluster name. vCloud Usage Meter only displays the current license key and version information for vSAN clusters. You can only see the license and version information for the new cluster name.

**Workaround:** None.

- **vCloud Usage Meter 3.6 detects a Distributed Firewall (DFW) rule for non-NSX cluster objects and reports NSX Advance usage**

You install NSX on a cluster level. In a multi-cluster environment, you might have both NSX and non-NSX clusters. When you apply NSX Distributed Firewall rules, you apply these rules to all NSX clusters in your environment. vCloud Usage Meter 3.6 detects and reports rules created for both NSX and non-NSX clusters. As a result, you might notice NSX Advance usage for a non-NSX cluster.

**Workaround:** None. This is an expected behavior.

- **vCloud Usage Meter 3.6 reports different NSX bundles after first collection**

In vCloud Usage Meter 3.5, you select the NSX edition manually. vCloud Usage Meter 3.6 detects the NSX edition based on the use of features. For example, before migration, if you manually select NSX Advance in vCloud Usage Meter 3.5, after migration you only override the edition until the next collection in vCloud Usage Meter 3.6. vCloud Usage Meter 3.6 detects the actual feature use as NSX Enterprise, stops metering the manually selected NSX Advance bundle, and starts metering a new NSX Enterprise bundle. This scenario is applicable for NSX Base or Advance, or Enterprise license edition in vCloud Usage Meter 3.5. The feature detection module in vCloud Usage Meter 3.6 does the corresponding corrections on license editions after collection.

**Workaround:** None.

- **You can export the Horizon DaaS Tenants report in JSON format**

JSON format is meant for internal usage and is not intended for customer use. This export option is harmless for you. Exporting reports in JSON format is suppressed for all other reports and will be suppressed for Horizon DaaS Tenants report as well in the next vCloud Usage Meter release.

**Workaround:** None.

- **vRealize Operations usage of managed vCenter Server may be reported as unmanaged**

Due to a bug in the vRealize Operations data processing, vRealize Operations usage of managed vCenter Server may be reported as unmanaged.

**Workaround:** To work around this issue, install and configure a new vCloud Usage Meter instance and register the vCenter Server host using the same letter case you used when registering it on the vRealize Operations Manager side.

- **vCloud Usage Meter does not meter vSAN**

vCloud Usage Meter collects information for the enabled vSAN features from the associated vCenter Server and stores this information in vCloud Usage Meter. In certain occasions vCloud Usage Meter fails to read the information about used vSAN features. As a result, vCloud Usage Meter reports do not contain vSAN usage information.

**Workaround:** None. This issue is fixed in vCloud Usage Meter 3.6.1.