

vmware® PARTNER NETWORK

# VMWARE CLOUD PROVIDER PROGRAM

Q4 CY2017

Product Usage Guide is effective for program product usage as of February 2018. This VMware Cloud Provider Program Product Usage Guide replaces all previous VSPP Product Usage Guides or vCloud Air Network Product Usage Guides. The information provided in this Product Usage Guide applies to all of the program products and bundles that are available in the VMware Cloud Provider Program (the “Products”) as listed below in the VMware Cloud Provider Program Pricing Model, and may be updated by VMware at any time. To have access to these Products, a Service Provider must have a valid rental agreement with a VMware Aggregator as of or after February 2018 for the applicable reporting and purchase of VMware Cloud Provider Program.

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#### What's New CY17 Q4

The following products have been added to the VMware Cloud Provider Program:

1. vCloud Director Extender

The following products have been removed from the VMware Cloud Provider Program:

1. vCloud Connector Advanced

The following products have been updated in the VMware Cloud Provider Program:

1. vCloud Director Extender

### ***You can find the most current information about VMware Cloud Provider Program Products on VMware Cloud Provider Program Edge***

*VMware Cloud Provider Program Edge is dedicated to VMware Cloud Provider Program solutions, products, and the latest information available to service providers and aggregators, driving the success of public and hybrid clouds. Visit VMware Cloud Provider Program Edge to find all of the most current information you need - technical whitepapers, vCloud architecture toolkit, and customer case studies - in one location on an easy-to-use website. <https://cloudsolutions.vmware.com/>*

## Terms and Conditions

### **Support Overview**

Support coverage provided for VMware Cloud Provider Program Products is listed in this Guide for each product. Product Support renewal is automated without any required action by Service Providers or Aggregators. Production Support is automatically extended for any Service Provider with an effective VMware Cloud Provider Program Agreement (“VMware Cloud Provider Program Agreement”) that is not delinquent in monthly reporting or payment as of the VMware Cloud Provider Program agreement anniversary date. All support is governed by the VMware Support Policies set forth on

[https://www.vmware.com/support/policies/policy\\_index.html](https://www.vmware.com/support/policies/policy_index.html)

For further technical assistance, please contact VMware Global Support Services at <http://www.vmware.com/support/contacts> or call:

+1 877-4VMWARE hotline (use Option 4 for Technical Support).

### **Product Lifecycle**

VMware manages product availability in accordance with its Lifecycle Policies described at [Lifecycle Policies](#). Unless otherwise indicated in this Guide, the VMware Cloud Provider Program products and services will follow VMware’s general Lifecycle Policies. For the VMware Cloud Provider Program, a product or service is considered on “Special Terms” when it has reached the End of Availability under the Lifecycle Policies. While a product or service is on Special Terms, Service Providers using the product or service prior to the End of Availability may continue to use (and report usage of) the product or service and request additional licenses, but usage by new Service Providers is not allowed. When a product or service has reached either the End of Support Life or the End of Technical Guidance, then all Service Providers must stop using the applicable product or service. For a complete list of the lifecycles for VMware products and services, please refer to:

<https://www.vmware.com/files/pdf/support/Product-Lifecycle-Matrix.pdf>

### **Sign up for VMware Security Advisories**

VMware takes security seriously. VMware Security Advisories notify partners and customers of known security vulnerabilities in VMware products. To receive new and updated VMware security notifications, sign up for VMware Security Advisories at VMware Security Response Center.

### **Translation**

To the extent that this Guide has been translated into any language besides English, the English version of the Guide will prevail over any inconsistencies with a non-English version of the Guide.

## VMware Cloud Provider Program Reporting Requirements

Service Providers must report usage of Products to the Aggregator from which they procure the Product license entitlements using the following methods:

- The VMware vCloud Usage Meter (“Usage Meter”) shall be used to monitor the vCloud Service Provider Bundles and standalone products. Service Providers must install the Usage Meter to monitor and report usage information to their Aggregator. Separate license keys must be identified by the Usage Meter in order to meter the Cloud Test Demonstration Environment to report usage information to their Aggregator. In order to report the new VMware Cloud Provider bundles, Service Providers must utilize Usage Meter version 3.5 or later. Service Providers should use the “Monthly Usage Report” from Usage Meter to report usage.
- VMware Site Recovery Manager (SRM) servers must be identified and linked to vCenter Servers in order to report on protected virtual machines.
- If you are using vRealize Operations, NSX, vSAN, or vSphere Availability products, Usage Meter 3.3.3 will not measure them correctly. Please report the usage of such products using Usage Meter 3.5 or later. For manual reporting instructions using Usage Meter 3.3.3, please see [Appendix A](#). Please note Usage Meter 3.3.3 is no longer supported. If you are using a version of Usage Meter prior to UM 3.5 please move to a supported version of Usage meter.
- Partners using older editions of standalone vSphere Standard, vSphere Advanced or vSphere Enterprise should report as follows: Point Value: 7 points per 1 GB Reserved RAM (based on average monthly usage) (GB = 1024 MB). Total points capped at 24 GB RAM per virtual machine (see Reporting and Operational Details) any version of vSphere other than vSphere Enterprise with Distributed Network Switch will be metered by Usage Meter at the 7 point bundle rate.

The total of these submissions will be used by the Aggregator to calculate the total point usage for the month. See the [VMware Cloud Provider Program Guide](#) for information on the Cloud Test Demonstration Environment.

## Usage Meter

For all products in this Product Usage Guide, unless otherwise stated, monthly usage total consists of the total of all products used. The Service Provider Program Agreement requires Service Provider to retain certain records relating to usage. Those records include all data used for reporting, including but not limited to the Usage Meter data and reports, and manually reported points. All data must be maintained for a minimum of 2 years, see [backup instructions in the Usage Meter Guide for Usage Meter](#). When reporting manually save a screenshot of reported points in a folder save each file with month reported and product name. When migrating to new versions of Usage Meter, make sure to backup data from previous version as well. Service Providers are required to keep usage data collected by the vCloud Usage Meter for a minimum period of two years.

vCloud Usage Meter is available for download as a free virtual appliance and is licensed under VMware's standard End User License Agreement (EULA):

[https://my.vmware.com/en/web/vmware/info/slug/datacenter\\_cloud\\_infrastructure/vmware\\_vcloud\\_usage\\_meter/3\\_6](https://my.vmware.com/en/web/vmware/info/slug/datacenter_cloud_infrastructure/vmware_vcloud_usage_meter/3_6). VMware recommends that Service Providers use Usage Meter Version 3.6.

**Note:** Service Providers must be registered users of the MyVMware.com site in order to download the vCloud Usage Meter.

This section is a summary of the required information for the vCloud Usage Meter. The complete documentation is available on Partner Central at the following locations:

1. [Usage Meter Release Notes](#)
2. [Usage Meter User Guide](#)
3. [Usage Meter API Guide](#)

### VCloud Usage Meter collects the following information:

1. Time at which data is collected
2. Host DNS name
3. Host RAM (physical memory)
4. vSphere license type
5. Virtual machine vCenter name (optional field for Service Providers)
6. Virtual machine host name (optional field for Service Providers)
7. vRAM (allocated virtual memory)
8. Billing vRAM (calculation based on reserved virtual memory and memory cap per virtual machine)
9. Virtual machine CPU (count of virtual CPUs)
10. Virtual machine instance UUID (universal unique identifier)
11. Virtual machine location in vSphere inventory
12. Horizon Workspace disk usage
13. Used Storage Capacity for vSAN Deployments (GB)

Collected data is stored in the vPostgres database of the virtual appliance itself. For more information about the Data collected by Usage Meter and for the Usage Meter Guidelines please visit:

<https://vmware.my.salesforce.com/sfc/#version?id=0693400002FN7L>

By installing vCloud Usage Meter 3.6, you acknowledge that you will automatically send data to VMware. This data 1) confirms your installation of vCloud Usage Meter v3.6 and 2) includes Monthly Usage, Customer Usage, VM History and anonymized metering event data. All data collected will only be used for the purpose of improving usage meter support or developing an improved reporting process. When the improved reporting process is available, you will be provided an opportunity to opt-in to the terms and use of your data as part of this process.

### Usage Meter Billing vRAM Calculation

Usage Meter 3.6 calculates billing RAM for the powered on VM by taking the greater value of:

1. reserved RAM
2. ½ of the allocated RAM capped at 24 GB.

Billed RAM is billing RAM x Time in hours. The billed RAMs are summed, converted to GB and then divided by the number of hours in the month to give the Average Billed RAM (GB) that can be found on the Monthly Usage Report.

#### Example

*During one 30-day calendar month, a Service Provider uses the vCloud Service Provider Bundle – Advanced Edition to configure her virtual machine with 16 vGB for 15 days and 48 vGB for the remaining 15 days. The reservation level for the virtual machine is set at 75 percent for the entire month.*

- 15 days x 24 hours x 16 vGB x 0.75 = 4,320 vGB hours
- 15 days x 24 hours x 24 vGB (48 vGB x 0.75 but capped at 24 GB) = 8,640 vGB hours
- Total vGB hours = 12,960 vGB hours
- Total points = 12,960 vGB hours ÷ 720 hours/month x 7 points (for Advanced) = 126 points

### How Information is sent to Aggregators for Billing Purposes

Service Providers report to their Aggregators in the agreed to method between them and the Aggregator. Reports generated by the vCloud Usage Meter can be sent to Aggregators, if requested, but are not required to be sent as part of the Program Reporting requirements.

**Note:** All data is due to the Aggregator by the date specified in the Aggregator contract. Service Providers must adhere to reporting requirements that are designated in their Aggregator contract. Additionally, Service Providers must use the vCloud Usage Meter to generate their Monthly Usage Report for billing purposes and enter their monthly usage into the VMware Cloud Provider Business Portal.

### Information that is Available in the Reports

The report includes customer name, vSphere license type, if the usage is billable, and the amount of billed vRAM—including memory cap per virtual machine—consumed for the month.

Service Providers also have the ability to filter reports as follows:

1. By customer:
  - a. Names: Filter based on a single customer, multiple customers, or all customers
  - b. Country: Filter based on a single country, multiple countries, or all countries
  - c. Postal Code: Filter based on a postal code, multiple postal codes, or all postal codes
2. By license set: Filter based on one or more user-defined license sets
3. By month/year: Filter based on a single month and year as well as the option to provide a range limited to month and year

### How to Manage Customer Information

In order to prevent an excessive amount of manual data entry, the vCloud Usage Meter enables users to import and export customer lists. Users can also create, read, update, and delete customers and customer relationships to virtual machines with the vCloud Usage Meter.



**vCloud Usage Meter 3.6 reports on the following products:**

VMware vCloud Service Provider Bundles
VMware vCloud Director
VMware vCenter Server
VMware Site Recovery Manager
VMware ESXi
VMware vRealize Automation
VMware vRealize Operations
VMware NSX
VMware vSAN
VMware Horizon DaaS Bundle – VDI Edition
VMware Horizon DaaS Bundle – RDSH Edition
vCloud Availability for vCloud Director

## VMware Cloud Provider Program Pricing Model

Service Providers currently able to license under VMware Cloud Provider Program may utilize the following products. All products used must be reported to the Aggregator on a monthly basis. Service Providers with valid VMware Cloud Provider Agreements will have the products with points value listed below delivered in their MyVMware license portals automatically, unless indicated otherwise.

Product Name	Points/ Month	Charged Per
<b>VMware Cloud Provider Program Service Provider Bundles</b>		
VMware vCloud SP Advanced Bundle with Management & Networking	12	1 GB Reserved RAM (based on average monthly usage)
VMware vCloud SP Advanced Bundle with Management	10	1 GB Reserved RAM (based on average monthly usage)
VMware vCloud SP Advanced Bundle with Networking	9	1 GB Reserved RAM (based on average monthly usage)
VMware vCloud SP Advanced Bundle	7	1 GB Reserved RAM (based on average monthly usage)
VMware vCloud SP Standard Bundle with Management	8	1 GB Reserved RAM (based on average monthly usage)
VMware vCloud SP Standard Bundle with Networking	8	1 GB Reserved RAM (based on average monthly usage)
VMware vCloud SP Standard Bundle	5	1 GB Reserved RAM (based on average monthly usage)

Complete product list	Points / Month	Charged Per
<b>Management Products</b>		
VMware vCloud Availability for vCloud Director - Disaster Recovery	18	Protected Virtual Machine (VM)
VMware vCloud Availability for vCloud Director - Migration	0	Protected Virtual Machine (VM)
VMware vRealize Automation Advanced	5	Virtual Machine or OSI
VMware vRealize Automation Enterprise	8	Virtual Machine or OSI
VMware vRealize Business for Cloud Advanced	2	1 GB Reserved RAM (based on average monthly usage)
VMware vRealize Log Insight	4.5	Virtual Machine or OSI
VMware vRealize Network Insight Advanced	3	Virtual Machine per month
VMware vRealize Operations Standard	2.5	Managed Virtual Machine or OSI
VMware vRealize Operations Advanced	6	Managed Virtual Machine or OSI
VMware vRealize Operations Enterprise	12	Managed Virtual Machine or OSI
VMware vRealize Hyperic	15	Machine
<b>Networking &amp; Security Management</b>		
VMware NSX Enterprise	25	Managed Virtual Machine or OSI
<b>Storage and Availability</b>		
VMware Site Recovery Manager	24	Protected Virtual Machine (VM)
VMware vSAN Standard	0.04	GB per month for Used Capacity
Promo-VMware vSAN Standard*	0.02	GB per month for Used Capacity
VMware vSAN Advanced	0.06	GB per month for Used Capacity
Promo-VMware vSAN Advanced*	0.03	GB per month for Used Capacity
VMware vSAN Standard + Enterprise Add-on	0.06	GB per month for Used Capacity
Promo-VMware vSAN Standard + Enterprise Add-on*	0.03	GB per month for Used Capacity
VMware vSAN Advanced + Enterprise Add-on	0.08	GB per month for Used Capacity
Promo-VMware vSAN Advanced + Enterprise Add-on*	0.04	GB per month for Used Capacity
VMware vCloud SP Hyper-converged Infrastructure Bundle *	6	GB Reserved RAM per month
VMware vSAN Standard + Enterprise Add-on for Hyper-converged Infrastructure *	.06	GB per month for Used Capacity
Promo-VMware vSAN Standard + Enterprise Add-on for Hyper-converged Infrastructure *	.03	GB per month for Used Capacity
VMware vSAN Advanced + Enterprise Add-on for Hyper-converged Infrastructure *	.08	GB per month for Used Capacity
Promo- VMware vSAN Advanced + Enterprise Add-on for Hyper-converged Infrastructure *	.04	GB per month for Used Capacity
VMware Horizon Advanced for Hyper-converged Infrastructure *	21	Concurrent Connection
VMware Horizon Enterprise for Hyper-converged Infrastructure *	30	Concurrent Connection

<b>Desktop &amp; Application Virtualization</b>		
VMware App Volumes Standard	4	Concurrent Connection
VMware App Volumes Advanced	7	Concurrent Connection
VMware App Volumes Enterprise	9	Concurrent Connection
VMware Horizon DaaS Bundle – RDSH Edition *	13	Total Allocated Quota for RDSH Connections
VMware Horizon DaaS Bundle – VDI Edition *	16	Total Allocated Quota for VDI Connections
VMware Desktop Disaster Recovery for Horizon DaaS Bundle(s) *	4	Total Allocated Insurance Quota for VDI and RDSH Connections per month
VMware Horizon Standard	12	Concurrent Connection
VMware Horizon Advanced	19	Concurrent Connection
VMware Horizon Enterprise	28	Concurrent Connection
VMware Horizon for Linux	7	Concurrent Connection
VMware Horizon Apps Standard	11	Concurrent Connection
VMware Horizon Apps Advanced	18	Concurrent Connection
VMware Mirage	7	Named User
VMware ThinApp Client	2	ThinApp Client
VMware ThinApp Packager	1	ThinApp Packager
VMware User Environment Manager	2	Named User
VMware vSAN Standard for Desktop	2	Concurrent Connection
VMware vSAN Advanced for Desktop	4	Concurrent Connection
VMware vSAN Enterprise Add-on for Desktop	1	Concurrent Connection
VMware NSX Advanced for Desktop	5	Concurrent Connection
VMware NSX Enterprise for Desktop	8	Concurrent Connection
<b>Third Party Products</b>		
OnApp™ for VMware Cloud Provider Program *	1.5	1 vBG Reserved RAM
Blue Medora True Visibility for vRealize Operations Standard	1.25	VM or OSI* per month
Blue Medora True Visibility for vRealize Operations Advanced	3	VM or OSI* per month
Blue Medora True Visibility for vRealize Operations Enterprise	6	VM or OSI* per month
Blue Medora True Visibility for vRealize Operations Manager of Managers	1.25	VM or OSI* per month

\* Requires special qualification process; see details on the product specific page(s).

\*OSI stands for OS Instance. This measure is used for non-VMware environments, including physical.

## Product Specific Usage Information

### ***VMware Cloud Provider Program Specific Licensing Usage Information***

The VMware Cloud Provider Program Partner Agreement provides a VMware EULA exception for Service Providers to install and use VMware Products as part of a Hosted IT Service. Prior written approval is required from the VMware Cloud Provider Program Office for any deviation from the requirements outlined below.

VMware Cloud Provider Program partners can only leverage VMware perpetual licenses, including OEM versions, to support internal IT operations. Internal IT operations are any IT function that exclusively supports a system that is not connected, either directly or in an ancillary manner, to the partner's hosting environment. In addition, VMware perpetual licenses may not be used to support the management or operations of an environment utilized to host for unaffiliated third parties. Virtual machines running on hosts with perpetual license keys should be tagged in the vCloud Usage Meter and are not considered billable.

In the VMware Cloud Provider Program, a Hosted IT Service means the provision of services created by a Service Provider for its tenants that:

1. Provide access to compute, storage, network resources or software applications ("hosting infrastructure") from systems that are installed and operated by Service Provider among its customers; and
2. May be accessed via the Internet, telephone or private network based.

There are two categories of Hosted IT Service architectures:

- **Multi-tenant:** The hosting infrastructure is hosted by Service Provider at the Service Provider's premise(s) and shared between multiple tenants.
- **Single-tenant:** The hosting infrastructure is dedicated to a particular tenant and not shared with other tenant(s). Single-tenant Hosted IT services may be delivered by the Service Provider at their premise(s) or offered as a managed service at the tenant's premise(s).

For single-tenant Hosted IT Services, Service Providers may install software on systems located on a tenant's premise(s) solely to provide Hosted IT Services to that tenant, provided that the Service Provider maintains day-to-day management and administrative control of the systems.

Upon request, Service Provider will promptly identify the license keys installed on the systems located at each tenant's site. Service Provider shall not permit tenant (or any third party agent providing service to the tenant) to access, maintain, or otherwise use the software, except for the sole purpose of accessing the functionality of the software in the form of Hosted IT Services.

## VMware vCloud SP Bundles

VMware Cloud Provider Program partners can report the following bundles (refer to **Table 1**):

- [VMware vCloud SP Advanced Bundle with Management & Networking](#)
- [VMware vCloud SP Advanced Bundle with Management](#)
- [VMware vCloud SP Advanced Bundle with Networking](#)
- [VMware vCloud SP Advanced Bundle](#)
- [VMware vCloud SP Standard Bundle with Management](#)
- [VMware vCloud SP Standard Bundle with Networking](#)
- [VMware vCloud SP Standard Bundle](#)

Features		Standard	Standard w/Networking	Standard w/Management	Advanced	Advanced w/Networking	Advanced w/Management	Advanced w/Networking & Management
Points (per GB reserved vRAM/month)		5	8	8	7	9	10	12
Management	vRealize Operations Enterprise			✓			✓	✓
	vRealize Log Insight (vRLi)		✓	✓	✓	✓	✓	✓
	vCloud Director (vCD)	✓			✓	VCD or VIO	✓	VCD or VIO
	VMware Integrated Open Stack (VIO)							
Metering	vRB for Cloud Advanced	✓						
	vCenter Chargeback Manager	✓						
Networking	NSX - SP Enterprise							✓
	NSX - SP Advanced		✓			✓		
	NSX - SP Base (vCNS mode)				✓		✓	
Compute	vSphere Enterprise Plus		✓	✓	✓	✓	✓	✓
	vSphere Enterprise w/Distributed Network Switch	✓						
	vCenter Server Standard	✓	✓	✓	✓	✓	✓	✓
Support	Production Level Support	✓	✓	✓	✓	✓	✓	✓

**Table 1**

Starter Bundle maps to the vCloud SP Standard Bundle. Please report as vCloud SP Standard bundle.

\*Sphere Enterprise with Distributed Network Switch license maps to vSphere for vCloud Service Providers Standard license.

## Reporting VMware Cloud Provider Program Bundles

The VMware Cloud Provider Program Bundles shall be metered by Usage Meter 3.5 or 3.6. If you are currently using a version of Usage Meter prior to 3.5 and would like to report on the VMware Cloud Provider Program Bundles please follow these guidelines:

If Usage Meter 3.3.3 reports Premier bundle please determine the distribution among the following VMware Cloud Provider Program bundle and enter accordingly. For instructions on how to determine the distribution for each bundle please refer to [Appendix A](#).

- VMware vCloud SP Standard Bundle with Networking
- VMware vCloud SP Standard Bundle with Management
- VMware vCloud SP Advanced Bundle
- VMware vCloud SP Advanced Bundle with Networking
- VMware vCloud SP Advanced Bundle with Management
- VMware vCloud SP Advanced Bundle with Networking and Management

**Note:** Usage Meter 3.6 will detect mixed editions of NSX in a single vCenter environment. If you are using Usage Meter 3.5 and plan to mix editions of NSX within a single vCenter environment, [see NSX reporting instructions](#).

VMware vCloud SP Advanced Bundle with Management & Networking

<b>Description</b>	The VMware vCloud SP Advanced Bundle with Management & Networking provides the key components required to deliver an enterprise-class Cloud service together with management, automation and advanced networking capabilities. It is targeted at Service Providers who want to enable enterprises to extend their data centers to the public cloud with agility, compatibility and security in a multi-tenant infrastructure, while providing improved Service Level Agreement (“SLA”) and capturing new revenue streams through add-on services to customers. Service Providers have the option to deploy either VMware vCloud Director or VMware Integrated OpenStack (“VIO”).
<b>Point Value / Charged Per</b>	12 points per 1 GB Reserved RAM (based on average monthly usage) (GB = 1024 MB)  Total points capped at 24 GB of Reserved RAM per virtual machine (see Reporting and Operational Details in <a href="#">Appendix A</a> ).
<b>Components</b>	<ul style="list-style-type: none"> <li>• VMware vRealize Operations Enterprise, including vRealize Operations Manager and vRealize Configuration Manager (Note: Optional Management Packs providing Tenant-Facing operational information are now available on the VMware Marketplace for vCD and vROPs integration <a href="https://marketplace.vmware.com">https://marketplace.vmware.com</a>)</li> <li>• VMware vRealize Log Insight</li> <li>• VMware vSphere Enterprise Plus</li> <li>• VMware vCenter Server Standard</li> <li>• VMware vCloud Director <u>OR</u> VMware Integrated OpenStack (VIO)</li> <li>• VMware NSX Enterprise</li> </ul>
<b>Reporting</b>	Usage Meter 3.5 (or later versions) supports reporting of the vCloud SP Advanced Bundle with Management & Networking. If you are using an older version of Usage Meter you will need to manually meter this bundle using the <a href="#">steps outlined</a> .
<b>Support</b>	Production Level Support



## VMware vCloud SP Advanced Bundle with Management

<b>Description</b>	The VMware vCloud SP Advanced Bundle with Management provides the key components required to deliver an enterprise-class Cloud service together with management and automation capabilities. It is targeted at Service Providers who want to enable enterprises to extend their data centers to the public cloud with agility, compatibility and security in a multi-tenant infrastructure, while providing improved SLAs and capturing new revenue streams through add-on services to customers.
<b>Point Value / Charged Per</b>	10 points per 1 GB Reserved RAM (based on average monthly usage) (GB = 1024 MB)
<b>Components</b>	<ul style="list-style-type: none"> <li>• VMware vRealize Operations Enterprise, including vRealize Operations Manager and vRealize Configuration Manager (Note: Optional Management Packs providing Tenant-Facing operational information are now available on the VMware Marketplace for vCD and vROPs integration <a href="https://marketplace.vmware.com">https://marketplace.vmware.com</a>)</li> <li>• VMware vRealize Log Insight</li> <li>• VMware vSphere Enterprise Plus</li> <li>• VMware vCenter Server Standard</li> <li>• VMware vCloud Director</li> <li>• VMware NSX Base (vCNS mode)</li> </ul>
<b>Reporting</b>	Usage Meter 3.5 (or later versions) supports reporting of the vCloud SP Advanced Bundle with Management. If you are using an older version of Usage Meter you will need to manually meter this bundle using the <a href="#">steps outlined</a> .
<b>Support</b>	Production Level Support

VMware vCloud SP Advanced Bundle with Networking

<b>Description</b>	The VMware vCloud SP Advanced Bundle with Networking provides the key components required to deliver an enterprise-class Cloud service. It is targeted at Service Providers who want to enable enterprises to extend their data centers to the public cloud with agility, compatibility and security in a multi-tenant infrastructure with robust networking capabilities. Service Providers have the option to deploy either VMware vCloud Director or VMware Integrated OpenStack (VIO).
<b>Point Value / Charged Per</b>	9 points per 1 GB Reserved RAM (based on average monthly usage) (GB = 1024 MB)  Total points capped at 24 GB of Reserved RAM per virtual machine (see Reporting and Operational Details)
<b>Components</b>	<ul style="list-style-type: none"> <li>• VMware vRealize Log Insight</li> <li>• VMware vSphere Enterprise Plus</li> <li>• VMware vCenter Server Standard</li> <li>• VMware vCloud Director <u>OR</u> VMware Integrated OpenStack (VIO)</li> <li>• VMware NSX Advanced</li> </ul>
<b>Reporting</b>	Usage Meter 3.5 (or later versions) supports reporting of the vCloud SP Advanced Bundle with Networking. If you are using an older version of Usage Meter you will need to manually meter this bundle using the <a href="#">steps outlined</a> .
<b>Support</b>	Production Level Support

## VMware vCloud SP Advanced Bundle

<b>Description</b>	The VMware vCloud SP Advanced Bundle provides the key components required to deliver an enterprise-class Cloud service. It is targeted at Service Providers who want to enable enterprises to extend their data centers to the public cloud with agility, compatibility and security in a multi-tenant infrastructure.
<b>Point Value / Charged Per</b>	7 points per 1 GB Reserved RAM (based on average monthly usage) (GB = 1024 MB) Total points capped at 24 GB of Reserved RAM per virtual machine (see Reporting and Operational Details) Total points capped at 24 GB of Reserved RAM per virtual machine (see Reporting and Operational Details)
<b>Components</b>	<ul style="list-style-type: none"> <li>• VMware vRealize Log Insight</li> <li>• VMware vSphere Enterprise Plus</li> <li>• VMware vCenter Server Standard</li> <li>• VMware vCloud Director</li> <li>• VMware NSX Base (vCNS mode)</li> </ul>
<b>Reporting</b>	Usage Meter 3.5 (or later versions) supports reporting of the vCloud SP Advanced Bundle. If you are using an older version of Usage Meter you will need to manually meter this bundle using the <a href="#">steps outlined</a> .
<b>Support</b>	Production Level Support

## VMware vCloud SP Standard Bundle with Management

<b>Description</b>	The VMware vCloud SP Standard Bundle with Management provides the key components required to deliver a competitive Cloud service together with management and automation capabilities. It is designed to enable organizations of all types and sizes to quickly and easily provision public cloud resources, or securely extend their internal virtualized infrastructure into the public cloud, delivering a robust, interoperable and enterprise-class experience.
<b>Point Value / Charged Per</b>	8 points per 1 GB Reserved RAM (based on average monthly usage) (GB = 1024 MB)  Total points capped at 24 GB of Reserved RAM per virtual machine (see Reporting and Operational Details)
<b>Components</b>	<ul style="list-style-type: none"> <li>• VMware vRealize Operations Enterprise, including vRealize Operations Manager and vRealize Configuration Manager</li> <li>• VMware vRealize Log Insight</li> <li>• VMware vSphere Enterprise Plus</li> <li>• VMware vCenter Server Standard</li> </ul>
<b>Reporting</b>	Usage Meter 3.5(or later versions) supports reporting of the vCloud SP Standard Bundle with Management. If you are using an older version of Usage Meter you will need to manually meter this bundle using the <a href="#">steps outlined</a> .
<b>Support</b>	Production Level Support

## VMware vCloud SP Standard Bundle with Networking

<b>Description</b>	The VMware vCloud SP Standard Bundle with Networking provides the key components required to deliver a competitive Cloud service. It is designed to enable organizations of all types and sizes to quickly and easily provision public cloud resources, or securely extend their internal virtualized infrastructure into the public cloud, delivering a robust, interoperable and enterprise-class experience with robust networking capabilities.
<b>Point Value / Charged Per</b>	8 points per 1 GB Reserved RAM (based on average monthly usage) (GB = 1024 MB) Total points capped at 24 GB of Reserved RAM per virtual machine (see Reporting and Operational Details)
<b>Components</b>	<ul style="list-style-type: none"> <li>• VMware vRealize Log Insight</li> <li>• VMware vSphere Enterprise Plus</li> <li>• VMware vCenter Server Standard</li> <li>• VMware NSX Advanced</li> </ul>
<b>Reporting</b>	Usage Meter 3.5 (or later versions) supports reporting of the vCloud SP Standard Bundle with Networking. If you are using an older version of Usage Meter you will need to manually meter this bundle using the <a href="#">steps outlined</a> .
<b>Support</b>	Production Level Support

VMware vCloud SP Standard Bundle

<b>Description</b>	The VMware vCloud SP Standard Bundle provides the key components required to deliver a competitive Cloud service. It is designed to enable organizations of all types and sizes to quickly and easily provision public cloud resources, or securely extend their internal virtualized infrastructure into the public cloud, delivering a robust, interoperable and enterprise-class experience.
<b>Point Value / Charged Per</b>	5 points per 1 GB Reserved RAM (based on average monthly usage) (GB = 1024 MB) Total points capped at 24 GB of Reserved RAM per virtual machine (see Reporting and Operational Details)
<b>Components</b>	<ul style="list-style-type: none"> <li>• VMware vSphere Enterprise with vNetwork Distributed Switch (shows as VMware vSphere for vCloud Service Provider Standard in myVMware) enabled (Note: The vSphere edition on installation may display as vSphere Standard with vNetwork Distributed Switch; however, this enables the same features as vSphere Enterprise with vNetwork Distributed Switch.)</li> <li>• VMware vCenter Server Standard</li> <li>• VMware vCloud Director</li> <li>• VMware vCenter Chargeback Manager<sup>1</sup></li> <li>• VMware vRealize Business for Cloud Advanced</li> </ul>
<b>Reporting</b>	Usage Meter 3.5 (or later versions) supports reporting of the vCloud SP Standard Bundle. If you are using an older version of Usage Meter you will need to manually meter this bundle using the <a href="#">steps outlined</a> . If Usage Meter 3.6 states that you are using the Starter Bundle report this in the VMware Cloud Provider Program Business Portal as the Standard bundle.
<b>Support</b>	Production Level Support

<sup>1</sup> Chargeback Manager is on “Special Terms” until June 30, 2018 when it will reach End of Support (EOS) and it will be removed from the VMWare Cloud Provider Program. Service Providers with completed contracts prior to September 2015 may request additional licenses of Chargeback Manager to be used with any new VMWare Cloud Provider bundle, until June 30, 2018. Service Providers with contracts completed after September 2015 should implement vRealize Business for Cloud Advanced.

# MANAGEMENT PRODUCTS

VMware vCloud Availability for vCloud Director

<b>Description</b>	VMware vCloud Availability for vCloud Director enables VMware Cloud Provider Program Service Providers to offer disaster recovery as a service, as well as migration services, from their customers on premises vCenter environments to the recovery environment in vCloud Director.
<b>Point Value / Charged Per</b>	For Disaster Recovery: 18 points per protected virtual machine per month. A protected VM is any virtual machine that is replicated from the primary site to the recovery site, regardless of whether the VM is powered on or off.  For Migration: 0 points per migration. A migration must be completed within 30 days; that is, the VM that is being migrated to vCloud Director must be fully replicated to vCloud Director, and the replication agreement between vCloud Director and vCenter for that particular VM must be turned off (or “detached”).
<b>Components</b>	vCloud Availability for vCloud Director
<b>Reporting</b>	vCloud Availability for vCloud Director reporting does not include any usage of vCenter Server, vSphere, or vCloud Director. Use of those products must be reported separately, in addition to the usage of the vCloud Availability for vCloud Director product.  vCloud Availability for vCloud Director Disaster recovery reporting consists of: <ul style="list-style-type: none"> <li>• The number of VMs under protection by the recovery (vCloud Director) environment</li> <li>• The number of VMs migrated in the past 30 days (no charge)</li> </ul> Usage Meter 3.6 meters vCloud Availability for vCloud Director. In order to report usage using UM 3.5 please follow these steps: <ul style="list-style-type: none"> <li>• Download the script from <a href="https://github.com/vmware/vcloud-availability-examples">https://github.com/vmware/vcloud-availability-examples</a></li> <li>• Run the script</li> <li>• Report the usage into the VMware Cloud Provider Program Business Portal</li> <li>• For additional guidance on manual reporting details see <a href="#">Appendix A</a>.</li> </ul>
<b>Support</b>	Production Level Support
<b>More Information</b>	<ul style="list-style-type: none"> <li>• VMware vCloud Availability for vCloud Director is not available as a Federal SKU.</li> <li>• Please note that vCloud Director SP v8.10 or newer is required; vCloud Availability for vCloud Director does not support earlier versions of vCloud Director.</li> <li>• Please note that the vSphere Replication appliance is needed on the tenant side in order to run vCloud Availability for vCloud Director. The vSphere Replication appliance is the same component that is included, without any additional cost, in VMware vSphere Essentials Plus Kit and higher editions of VMware vSphere, VMware vSphere with Operations Management™ editions, as well as with VMware vCloud Suite® editions.</li> </ul> <p>To learn more about vCloud Availability for vCloud Director visit: <a href="https://www.vmware.com/products/vcloud-availability.html">https://www.vmware.com/products/vcloud-availability.html</a></p>



## VMware vCloud Director SP

<b>Description</b>	VMware vCloud Director SP, the strategic cloud management platform for the VMware Cloud Provider Program, enables Service Providers to rapidly build and monetize cloud-scale, agile, differentiated cloud environments. vCloud Director enables services providers to deliver multi-tenant, self-service, NSX-based networking services, thus deriving additional revenue from their vCloud Director environment.
<b>Point Value / Charged Per</b>	vCloud Director is included, without additional charge, in the following bundles: <ul style="list-style-type: none"> <li>• Advanced Bundle (7 points)</li> <li>• Advanced w/Networking Bundle (9 points)</li> <li>• Advanced w/Management Bundle (10 points)</li> <li>• Advanced w/Networking &amp; Management Bundle (12 points)</li> </ul>
<b>Components</b>	vCloud Director
<b>Reporting</b>	vCloud Director is not available standalone; it must be used with a VMware Cloud Provider Program SP Bundle. See <a href="#">bundle reporting guidelines</a> .
<b>Support</b>	Production Level Support
<b>More Information</b>	<a href="#">VMware Cloud Provider Program vCloud Director</a>

## VMware vCloud Director Extender

<b>Description</b>	VMware vCloud Director Extender is to connect customers' on-premise data center to a multi-tenant cloud environment based on vCloud Director. It provides a secure platform that ensures a seamless migration of on-premise workloads and extension of virtual networks to the cloud.
<b>Point Value / Charged Per</b>	vCloud Director Extender is a helper application to vCloud Director and is included without additional charge in all bundles with that have vCloud Director: <ul style="list-style-type: none"> <li>• Advanced Bundle (7 points)</li> <li>• Advanced w/Networking Bundle (9 points)</li> <li>• Advanced w/Management Bundle (10 points)</li> <li>• Advanced w/Networking &amp; Management Bundle (12 points)</li> </ul>
<b>Components</b>	vCloud Director
<b>Reporting</b>	vCloud Director Extender is not available standalone; it must be used with a VMware Cloud Provider Program SP Bundle. See <a href="#">bundle reporting guidelines</a> .
<b>Support</b>	Production Level Support
<b>More Information</b>	<a href="#">VMware Cloud Provider Program vCloud Director</a>

## VMware vRealize Automation

VMware vRealize Automation is available to VMware Cloud Provider Program Service Providers in two editions (refer to **Table 2**):

- vRealize Automation Advanced
- vRealize Automation Enterprise

Features	Advanced	Enterprise
<b>Points per Managed VM or OSI per Month</b>	<b>5</b>	<b>8</b>
VMware Infrastructure Services, cloning only, VMware vRealize Orchestrator Integration	✓	✓
Multi-vendor, multi-cloud infrastructure and multi-vendor SW provisioning	✓	✓
Custom Services (XaaS), Approvals, Reclamation, Chargeback, Multi-tenancy	✓	✓
Application Services, Release Automation, DevOps Integration		✓

**Table 2**

## VMware vRealize Automation Advanced

<b>Description</b>	VMware vRealize Automation provides business agility to service providers by automating the delivery of personalized IT services to end customers. The VMware vRealize Automation, through a self-service catalog, enables end customers to request and manage a wide range of multi-vendor, multi-cloud, applications, infrastructure, and custom services. Policy-based governance assures that users receive the right size resources for a given task across the service lifecycle. To learn more about vRealize Automation visit: <a href="http://www.vmware.com/products/vrealize-automation/">http://www.vmware.com/products/vrealize-automation/</a>
<b>Point Value / Charged Per</b>	5 Points per Managed VM or OSI per month
<b>Components</b>	VMware vRealize Automation Advanced
<b>Reporting</b>	As vRealize Automation does not include vCenter Server or vSphere licensing; all use of those products must be reported separately, in addition to the usage of the vRealize Automation (based on edition). Monthly reporting via Usage Meter 3.5 (or later versions).
<b>Support</b>	Production Level Support
<b>More Information</b>	<a href="https://cloudsolutions.vmware.com">https://cloudsolutions.vmware.com</a>

## VMware vRealize Automation Enterprise

<b>Description</b>	VMware vRealize Automation provides business agility to service providers by automating the delivery of personalized IT services to end customers. The VMware vRealize Automation, through a self-service catalog, enables end customers to request and manage a wide range of multi-vendor, multi-cloud, applications, infrastructure, and custom services. Policy-based governance assures that users receive the right size resources for a given task across the service lifecycle. To learn more about vRealize Automation visit: <a href="http://www.vmware.com/products/vrealize-automation/">http://www.vmware.com/products/vrealize-automation/</a>
<b>Point Value / Charged Per</b>	8 Points per Managed VM or OSI per month
<b>Components</b>	VMware vRealize Automation Enterprise
<b>Reporting</b>	As vRealize Automation does not include vCenter Server or vSphere licensing; all use of those products must be reported separately, in addition to the usage of the vRealize Automation (based on edition). Monthly reporting via Usage Meter 3.5 (or later versions).
<b>Support</b>	Production Level Support
<b>More Information</b>	<a href="https://cloudsolutions.vmware.com">https://cloudsolutions.vmware.com</a>

VMware vRealize Business for Cloud Advanced Edition

<b>Description</b>	<p>vRealize Business for Cloud Advanced Edition enables service providers to gain transparency and control over the cost and quality of IT services. The product meters and tracks costs across key cost drivers such as compute, memory and storage. There are numerous ways of allocating cost and usage:</p> <ul style="list-style-type: none"> <li>• Rules to categorize vCenter hierarchy (by folders, tags, regular exp.)</li> <li>• Manually upload a .csv file describing hierarchy</li> <li>• vRealize Automation categorization</li> <li>• vCloud Director categorization</li> </ul>
<b>Point Value / Charged Per</b>	<p>When purchased standalone and used in conjunction with VMware Cloud Provider Program bundles, the point value is 2 Points per 1 GB of Reserved vRAM (based on average monthly usage) (GB = 1024 MB)</p> <p>Total points capped at 24 GB of Reserved vRAM per VM</p>
<b>Components</b>	VMware vRealize Business for Cloud Advanced
<b>Reporting</b>	When used as part of the VMware Cloud Provider Program bundles, vRealize Business for Cloud Advanced must be reported as a separate product at the point value and metric listed above. Monthly reporting is manual to the VMware Cloud Provider Program Business Portal
<b>Support</b>	Production Level Support
<b>More Information</b>	<a href="https://cloudsolutions.vmware.com">https://cloudsolutions.vmware.com</a>

VMware vRealize Log Insight

<b>Description</b>	VMware vRealize Log Insight delivers automated log management through aggregation, analytics and search, providing operational intelligence and enterprise-wide visibility in hybrid cloud environments. It collects and analyzes all types of machine-generated log data (such as application logs, network traces, configuration files, messages, and performance data and system state dumps). By using vRealize Log Insight with vRealize Operations, service providers can extend operational visibility and proactive management capabilities across their cloud. The product provides flat pricing for unlimited amounts of data per VM or OSI.
<b>Point Value / Charged Per</b>	4.5 points per managed virtual machine or OSI* per month.
<b>Components</b>	VMware vRealize Log Insight
<b>Reporting</b>	<p>As vRealize Log Insight does not include vCenter Server or vSphere licensing; all use of those products must be reported separately, in addition to the usage of the vRealize Log Insight.</p> <p>When used as a component of the VMware Cloud Provider Program bundles, reporting may consist of two parts, depending on whether the log sources ingested by vRealize Log Insight are vRAM-based or non-vRAM-based.</p> <ul style="list-style-type: none"> <li>• Monthly reporting (via Usage Meter) will be provided on the VMware Cloud Provider Program bundle that is installed and being utilized as the basis for vRealize Log Insight. Refer to the instructions on bundle usage reporting in <a href="#">Appendix A</a>.</li> <li>• vRealize Log Insight usage will be included in the VMware Cloud Provider Program bundle usage reporting for logs ingested from VMware vSphere-based log sources, using bundle based pricing and usage reporting.</li> <li>• Additional monthly manual reporting is required for the number of virtual machines or OS instances being monitored for non-vSphere-based log sources, using the standalone product pricing above.</li> </ul>
<b>Support</b>	Production Level Support
<b>More Information</b>	<p>When used with the VMware Cloud Provider Program bundles: The vRealize Log Insight license included in the VMware Cloud Provider Program bundles is a "full" Log Insight license.</p> <p>vRealize Log Insight is priced per "pipe" of data. This means that vRealize Log Insight may be used to ingest log files from any source in the Service Providers environment – some of those sources may be VMware vSphere-based and some may not be vSphere-based.</p> <p>Examples of vSphere-based log sources include: VMs, vCenter Servers running on hosts using vCloud SP bundles.</p> <p>Examples of non-vSphere-based log sources include: ESX host logging, switches/routers, ILO/iDRAC in ESX hosts, ESXi host or a firewall.</p> <p>When reported as part of the VMware Cloud Provider Program bundles, pricing is included for the vRealize Log Insight usage within the bundle, but</p>

	<p>only for vSphere-based log sources because the bundle usage is measured by GB Reserved RAM. As such, the pricing for vRealize Log Insight covers log sources such as VMs and vCenter Servers running on hosts using vCloud SP bundles which are utilized on a per GB Reserved RAM basis.</p> <p>However, if you are using vRealize Log Insight as part of a VMware Cloud Provider Program bundle but ingesting logs from non-vSphere-based log sources, you must report this incremental non-vSphere-based usage using the standalone product pricing at 4.5 points per managed virtual machine or OSI* per month (but only for the non-vSphere-based log sources). For OSI, we use the hostname fields of ingested events.</p> <p>*OSI stands for Operating System Instance, which includes any server with an IP address that generates logs, including network devices and storage arrays.</p> <p>To learn more about vRealize Log Insight visit: <a href="http://www.vmware.com/products/vrealize-log-insight">http://www.vmware.com/products/vrealize-log-insight</a> or <a href="https://cloudsolutions.vmware.com">https://cloudsolutions.vmware.com</a></p>
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\*OSI stands for Operating System Instance. This measure is used for non-VMware environments, including physical.

VMware vRealize Network Insight Advanced

<p><b>Description</b></p>	<p>VMware vRealize Network Insight Advanced delivers intelligent operations for software-defined networking and security, optimizes network performance and availability with visibility and analytics across virtual and physical networks, and provide planning and recommendations for implementing micro-segmentation security, plus operational views to quickly and confidently manage and scale VMware NSX deployments.</p> <p><b>Plan Micro-Segmentation and Deployment and Ensure Compliance</b></p> <p>Comprehensive net flow assessment and analysis lets you model security groups and firewall rules. vRealize Network Insight Advanced collects and analyzes network flows in real time and puts them in the context of the source and destination of the VMs and applications. Users can easily understand who is talking to whom and what flows need to be allowed or blocked. Recommendations make micro-segmentation easier to deploy and continuous monitoring keeps configurations in compliance over time.</p> <p><b>Optimize Network Performance with 360 Visibility</b></p> <p>Get converged visibility across overlay and underlay, virtual and physical, private and public clouds. Integration with virtual (NSX) and physical layers (physical switches, routers, firewalls) connects the dots across vendors and clouds.</p> <p><b>Ensure Health and Availability of NSX Deployment</b></p> <p>The simple search and intuitive UI lets admins and operators easily manage and troubleshoot NSX. Best practice checks guide users through their VXLAN and firewall implementation and alerts them to any pitfalls in their design and implementation of NSX.</p> <p><b>Deliver Audit and Compliance</b></p> <p>A data center time machine tracks all changes for audit and compliance purpose. Customers can go back in time and look at historical changes and see how each change impacted the security of a virtual machine</p>
<p><b>Point Value</b></p>	<p>3 points per managed Virtual Machine (VM) per month</p>
<p><b>Components</b></p>	<p>VMware vRealize Network Insight Advanced Add-on for NSX</p>
<p><b>Reporting</b></p>	<p>Service Providers must manually report the number of virtual machines or Operating System Instances (OSIs) being monitored by vRealize Network Insight Advanced using standalone product pricing in the VMware Cloud Provider Program Business Portal. There is no automated report that keeps track of the number of managed VMs at this time so it is the Service Provider's responsibility to accurately track and report this information each month.</p>
<p><b>Support</b></p>	<p>Production Level Support</p>
<p><b>More Information</b></p>	<p>For more detailed product information on vRealize Network Insight Advanced go to the VMware web site: <a href="http://www.vmware.com/products/vrealize-network-insight.html">http://www.vmware.com/products/vrealize-network-insight.html</a> or <a href="https://cloudsolutions.vmware.com">https://cloudsolutions.vmware.com</a></p>

## VMware vRealize Operations

VMware vRealize Operations delivers intelligent operations management across physical, virtual, and cloud infrastructures – from VMware vSphere and Hyper-V to Amazon Web Services. It correlates data from applications to storage in a unified, easy-to-use management tool that provides control over performance, capacity, and configuration, with predictive analytics driving proactive action and policy-based automation. Non-UM-monitored vCenter servers using vRealize operations will always be reported as a standalone line item on the monthly usage report. Usage Meter 3.6 counts the average number of VMs for each vCenter server managed by vRealize Operations.

Actual capabilities of vRealize Operations Manager vary by edition.

VMware vRealize Operations is available to Service Providers in three editions (refer to Table 3):

- vRealize Operations Standard
- vRealize Operations Advanced
- vRealize Operations Enterprise



Features\Editions	vROPs Standard	vROPs Advanced	vROPs Enterprise
Points per Managed VM or OSI per Month	2.5	6	12
Performance Monitoring and Analytics	✓	✓	✓
Predictive DRS and DRS management	✓	✓	✓
Capacity Management including trending, metering, right-sizing, optimization	✓	✓	✓
Capacity Models, what-if scenarios	✓	✓	✓
Scale Out Operations Platform	✓	✓	✓
Manual Workload Balancing	✓	✓	✓
Single sign-on	✓	✓	✓
Remote Collectors	✓	✓	✓
Guided Remediation	✓	✓	✓
Visualization: Out of the box dashboards, views, reports, heat map, performance charts	✓	✓	✓
Policy Management	✓	✓	✓
Custom data centers	✓	✓	✓
vSphere Hardening	✓	✓	✓
vSAN support through Management Pack for vSAN	✓	✓	✓
vRealize Log Insight Integration	✓	✓	✓
vRealize Business for Cloud Integration		✓	✓
Native vSAN monitoring and management		✓	✓
Automated Actions		✓	✓
Customizable dashboards and reports		✓	✓
Manage and configure storage DRS		✓	✓
Hardening for all SDDC components		✓	✓
Automated and Schedulable workload balancing		✓	✓
Built-in high availability (automated failover of platform nodes)		✓	✓
SDDC Health Dashboard		✓	✓
Super metrics		✓	✓
Monitoring of OS resources (CPU, disk, memory, network)		✓	✓
Multi-cloud Monitoring Management Packs: AWS, vCloud Air, OpenStack		✓	✓
Advanced APIs: Resource/Data Addition, Report Generation, etc.		✓	✓
3rd-Party Management Packs: Storage, Networking, Converged/Hyper Converged as well as non-vSphere hypervisors		✓	✓
Service Discovery & Application Dependency Mapping		✓	✓
Application, middleware and database Monitoring			✓
EPIC and Meditech management packs			✓
3rd party database, middleware, application management packs			✓

Table 3

## vRealize Operations Standard

<b>Description</b>	VMware vRealize Operations Standard is applicable to service providers who want vSphere monitoring, performance and capacity optimization.
<b>Point Value / Charged Per</b>	2.5 points per managed VM or OSI per month
<b>Components</b>	VMware vRealize Operations Manager Standard Edition
<b>Reporting</b>	<p>As vRealize Operations does not include vCenter Server or vSphere licensing; all use of those products must be reported separately, in addition to the usage of the vRealize Operations. The standalone version of vRealize Operations Standard Edition is reported based on monthly average of hourly count of VMs being managed in the month.</p> <p>Usage reporting instructions for vRealize Operations as part of the legacy vCloud Service Provider or new vCloud SP bundles, are included in <a href="#">Appendix B</a>. Non-UM-monitored vCenter servers using vRealize operations will always be reported as a standalone line item on the monthly usage report. Usage Meter 3.6 counts the average number of VMs for each vCenter server managed by vRealize Operations.</p>
<b>Support</b>	Production Level Support
<b>More Information</b>	<p>Get more out of vRealize Operations with third-party integrations and product extensions that enable comprehensive visibility across applications and infrastructure in one place with dashboards, reports, alerts and remediation actions. Refer to the <a href="#">VMware vRealize Operations Guide to Third-Party Solutions</a> for information on vRealize Operations Management Packs.</p> <p>Additional information on vRealize Operations can be found here: <a href="https://cloudsolutions.vmware.com">https://cloudsolutions.vmware.com</a></p>

## vRealize Operations Advanced

<b>Description</b>	VMware vRealize Operations Advanced is applicable to service providers who want virtual and physical infrastructures operations management capabilities including monitoring, performance, and capacity and configuration management.
<b>Point Value / Charged Per</b>	6 points per managed VM or OSI per month
<b>Components</b>	VMware vRealize Operations Advanced Edition
<b>Reporting</b>	<p>As vRealize Operations does not include vCenter Server or vSphere licensing; all use of those products must be reported separately, in addition to the usage of the vRealize Operations. The standalone version of vRealize Operations Advanced Edition is reported based on monthly average of hourly count of VMs being managed in the month.</p> <p>Usage reporting instructions for vRealize Operations as part of the legacy vCloud Service Provider or new vCloud SP bundles, are included in <a href="#">Appendix B</a>. Non-UM-monitored vCenter servers using vRealize operations will always be reported as a standalone line item on the monthly usage report. Usage Meter 3.6 counts the average number of VMs for each vCenter server managed by vRealize Operations.</p>
<b>Support</b>	Production Level Support
<b>More Information</b>	Get more out of vRealize Operations with third-party integrations and product extensions that enable comprehensive visibility across applications and infrastructure in one place with dashboards, reports, alerts and remediation actions. Refer to the <a href="#">VMware vRealize Operations Guide to Third-Party Solutions</a> for information on vRealize Operations Management Packs. Additional information on vRealize Operations can be found here: <a href="https://cloudsolutions.vmware.com">https://cloudsolutions.vmware.com</a>

vRealize Operations Enterprise

<b>Description</b>	VMware vRealize Operations Enterprise is applicable to service providers who want hybrid cloud infrastructure operations management capabilities including OS- and application-level monitoring, performance, and capacity and configuration management.
<b>Point Value / Charged Per</b>	12 points per managed VM or OSI per month
<b>Components</b>	VMware vRealize Operations Enterprise Edition
<b>Reporting</b>	<p>As vRealize Operations does not include vCenter Server or vSphere licensing; all use of those products must be reported separately, in addition to the usage of the vRealize Operations. The standalone version of vRealize Operations Enterprise Edition is reported based on monthly average of hourly count of VMs being managed in the month.</p> <p>Usage reporting instructions for vRealize Operations as part of the legacy vCloud Service Provider or new vCloud SP bundles, are included in <a href="#">Appendix B</a>. Non-UM-monitored vCenter servers using vRealize operations will always be reported as a standalone line item on the monthly usage report. Usage Meter 3.6 counts the average number of VMs for each vCenter server managed by vRealize Operations.</p>
<b>Support</b>	Production Level Support
<b>More Information</b>	<p>Get more out of vRealize Operations with third-party integrations and product extensions that enable comprehensive visibility across applications and infrastructure in one place with dashboards, reports, alerts and remediation actions. Refer to the <a href="#">VMware vRealize Operations Guide to Third-Party Solutions</a> for information on vRealize Operations Management Packs. Additional information on vRealize Operations can be found here: <a href="https://cloudsolutions.vmware.com">https://cloudsolutions.vmware.com</a></p>

## VMware vRealize Hyperic

<b>Description</b>	VMware vRealize Hyperic is an application management product. Through automatic discovery of infrastructure changes and handling of high volumes of metrics, vRealize Hyperic monitors the dynamics and elasticity of cloud applications. vRealize Hyperic provides visibility into the entire virtualized application stack, detects problems as soon as they occur and provides information to resolve these problems. To learn more about VMware vRealize Hyperic visit: <a href="http://www.vmware.com/products/vrealize-hyperic/">http://www.vmware.com/products/vrealize-hyperic/</a>
<b>Point Value / Charged Per</b>	15 points per Machine (as defined below) per month
<b>Components</b>	VMware vRealize Hyperic
<b>Reporting</b>	“Machine” means, solely with respect to vRealize Hyperic products, a license to install and use on a server, a virtual machine or a network device. Therefore, the reporting from the Service Provider needs to be a combination of those three items gathered manually and entered monthly into the VMware Cloud Provider Program Business Portal.
<b>Support</b>	Production Level Support
<b>More Information</b>	Installation guides and supported configurations for this product should be reviewed and followed prior to installing vRealize Hyperic. The information is posted at <a href="http://support.hyperic.com">http://support.hyperic.com</a> . There is no automated usage reporting tool available for this product. Service Providers must gather and report all usage manually.

# NETWORKING AND SECURITY MANAGEMENT

## VMware NSX

VMware NSX is the network virtualization platform for the Software-Defined Data Center, delivering the operational model of a virtual machine for entire networks.

VMware NSX is available to Service Providers in three editions:

- NSX Enterprise (standalone or bundled)
- NSX Advanced (Bundle only)
- NSX Base (Bundle only)

Note: Service Providers on NSX Enterprise Edition can download NSX-T for multi hypervisor environments. NSX-T currently supports pure KVM and hybrid ESXi and KVM environments. Before downloading NSX-T please review the requirement criteria and detailed feature set supported by NSX-T with your VMware Cloud Provider Program BDM or aggregator.

Table 4 below shows the features of different NSX Editions specific to the VMware Cloud Provider Program

Features	NSX-SP Base (not available standalone)	NSX-SP Advanced (not available standalone)	NSX-SP Enterprise
Points per Managed VM or OSI per Month			25
Distributed switching and routing	✓	✓	✓
NSX Edge Firewall	✓	✓	✓
NAT	✓	✓	✓
SW L2 bridging to physical environment		✓	✓
Dynamic routing with ECMP (Active-active)		✓	✓
Integration with vRealize and OpenStack	✓	✓	✓
NSX Edge load balancing	✓	✓	✓
Distributed load balancing			✓
Integration with HW VTEPs			✓
Distributed firewalling		✓	✓
Active Directory Integrated firewall		✓	✓
Service Insertion (3rd party integration)		✓	✓
Server activity monitoring		✓	✓
Cross vCenter NSX			✓
Multi-Site NSX optimizations			✓
VPN (IPSEC and SSL)	✓	✓	✓
Remote Gateway			✓

Table 4

VMware NSX Enterprise

<b>Description</b>	For Service Providers needing NSX Advanced, plus networking and security features across multiple domains and data centers.
<b>Point Value / Charged Per</b>	25 points per managed virtual machine or OSI per month
<b>Components</b>	VMware NSX Enterprise
<b>Reporting</b>	<p>As VMware NSX Enterprise does not include vCenter Server or vSphere licensing; all use of those products must be reported separately, in addition to the usage of VMware NSX Enterprise. Edge Services Gateway, DLR and UDLR VMs are not counted towards vRAM consumption for NSX reporting.</p> <p>There are two options for metering and reporting NSX Enterprise.</p> <p>1- Standalone: Monthly reporting of consumption via Usage Meter</p> <p>2- Bundled: Monthly reporting of consumption via Usage Meter</p> <p>If you have Usage Meter 3.3 or older: (Not Recommended)</p> <p>Manual Reporting: See Appendix for manual reporting steps</p> <p>VMware Cloud Provider Program partners are only entitled to features within their respective NSX Edition (Base, Advanced, and Enterprise). Please refer to the NSX feature matrix for a list of features that are available for each edition.</p> <ul style="list-style-type: none"> <li>• The use of NSX Enterprise standalone (standalone means not part of a VMware Cloud Provider Program bundle), or as a component of VMware Cloud Provider Program bundles, shall be reported with Usage Meter 3.5 or later. It is a user configurable option in Usage Meter 3.5 to use NSX products as standalone or as part of a VMware Cloud Provider Program bundle NOTE: NSX Base and NSX Advanced must be used as part of a VMware Cloud Provider Program bundle. The only version of NSX that can be used standalone is NSX Enterprise. Usage Meter 3.6 will detect NSX Editions based on features.</li> <li>• When bundling NSX: Usage Meter 3.6 will detect mixed editions of NSX in a single vCenter environment. If you are using Usage Meter 3.5 and plan to mix editions of NSX within a single vCenter environment, see NSX reporting instructions.</li> <li>• Reporting of NSX Edge Features: Some NSX features are deployed in the edge gateway (not on ESXi host), and will not be metered by Usage Meter unless the hosts are prepared for NSX. In this case, you must make sure hosts are prepared such that they are metered by Usage Meter. If you do not configure hosts on NSX Edge, you must manually report vRAM consumption for NSX Edge features.</li> </ul> <p>Note: Usage Meter currently does not support NSX-T reporting. Service Providers on NSX-T shall report NSX Enterprise usage instead.</p>
<b>Support</b>	Production Level Support



<b>More Information</b>	<p>The standalone NSX Edge client is a virtual appliance that provides connectivity between the end customer's on premises data center and the VMware Cloud Provider Program cloud. Please note that adoption of NSX at the end customer's on premises data center is not a requirement to avail this functionality.</p> <p>Standalone NSX Edge clients for NSX-v 6.2.4, 6.3.0 and 6.4.0 are now available for download at no additional charge (i.e. included in VMware NSX Enterprise) under the "Drivers &amp; Tools" sections of their respective NSX releases.</p> <p>For additional information on the standalone NSX Edge gateway, please refer to <a href="#">KB 2150142</a>.</p> <p>For more information on NSX Editions, please refer to: <a href="https://www.vmware.com/products/nsx.html">https://www.vmware.com/products/nsx.html</a></p>
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# STORAGE AND AVAILABILITY

## VMware Site Recovery Manager

<b>Description</b>	<p>VMware Site Recovery Manager (“SRM”) is a disaster recovery solution that provides automated orchestration and non-disruptive testing of centralized recovery plans for all virtualized applications. It allows Service Providers to offer reliable, automated protection for workloads hosted on their own cloud infrastructure and being replicated to another cloud destination (DR of the cloud) or workloads running on customer premises and being replicated to the cloud infrastructure (DR to the Cloud). It integrates natively with VMware vSphere® Replication™ or with a broad range of array-based replication solutions available from all major VMware storage partners. A deployment founded on vSphere and complemented with SRM can dramatically lower the cost of DR through management and testing automation that eliminates the complexity of legacy processes, while ensuring fast and highly predictable recovery time objectives (RTO) to maintain business continuity. To learn more about Site Recovery Manager visit: <a href="http://www.vmware.com/products/site-recovery-manager/features.html">http://www.vmware.com/products/site-recovery-manager/features.html</a></p>
<b>Point Value / Charged Per</b>	<p>24 points per protected virtual machine per month</p> <p>A protected VM is any virtual machine that is part of an SRM protection group, regardless of whether the VM is powered on or off. A license is only required for the VM on the active site, no license is required at the failover site.</p>
<b>Components</b>	<p>VMware Site Recovery Manager Enterprise</p>
<b>Reporting</b>	<p>As SRM does not include vCenter Server or vSphere licensing, all use of those products must be reported separately, in addition to the usage of the SRM product. The vCloud Usage Meter must monitor Service Provider licensing on either the protected or failover site. Typically, Service Providers will monitor SRM licenses on the failover site when protecting a customer’s private cloud resources.</p> <p>Site Recovery Manager or a Disaster Recovery system reporting consists of three parts:</p> <ul style="list-style-type: none"> <li>• Monthly reporting on the vCloud Service Provider Bundle that is installed and being utilized as the basis for SRM or Disaster Recovery on the <u>protected</u> side via Usage Meter.</li> <li>• Monthly reporting of SRM usage – number of VMs on the protected side via Usage Meter 3.5.</li> <li>• Monthly reporting on the vCloud Service Provider Bundle that is installed and being utilized as the basis for SRM or Disaster Recovery on the <u>recovery</u> side via Usage Meter.</li> </ul> <p>Reporting for SRM usage is done via vCenter 5 or later (required for SRM 5 and later.) The Service Provider needs to access the vCenter License Reporting Manager. That screen provides information on “License Capacity” as well as “Average Usage”. The Average Usage can be used as the number of virtual machines on the protected side for SRM versions not supported by the vCloud Usage Meter.</p>
<b>Support</b>	<p>VMware Production Level support</p>
<b>More Information</b>	<p><a href="http://www.vmware.com/products/site-recovery-manager/features.html">http://www.vmware.com/products/site-recovery-manager/features.html</a></p>
<b>Interoperability</b>	<p>SRM / vCenter Compatibility:</p> <ul style="list-style-type: none"> <li>- SRM / Storage Array interop: <a href="http://www.vmware.com/pdf/srm_storage_partners.pdf">http://www.vmware.com/pdf/srm_storage_partners.pdf</a></li> <li>- <a href="#">SRM is not compatible with vCloud Director. See vCloud Availability.</a></li> </ul>

## VMware Hyper-converged Infrastructure Products

VMware provides a unique, software-defined approach to hyper-convergence. vSAN, our industry-leading software for HCI is now offered on the broadest set of consumption options spanning over 150 vSAN Ready Nodes, including the Dell EMC VxRail – a fully integrated, preconfigured, and pre-tested Hyper-converged infrastructure appliance family.

### vSAN Promotion

The vSAN Promo is a discounted offering of vSAN for the period of 10/1/17 – 3/31/18, during which new\* vSAN Cloud Provider partners will be able to report vSAN usage at 50% of current list price for the following SKUs:

- Promo - VMware Virtual SAN Standard
- Promo - VMware Virtual SAN Standard + Enterprise Add-on
- Promo - VMware Virtual SAN Advanced
- Promo - VMware Virtual SAN Advanced + Enterprise Add-on
- Promo - VMware Virtual SAN Standard + Enterprise Add-on for Hyper-Converged Infrastructure
- Promo - VMware Virtual SAN Advanced + Enterprise Add-on for Hyper-Converged Infrastructure

To take advantage of this promo, reach out to your VMware Contact / Business Development Manager or Aggregator Partner.

Partners that report vSAN usage of above 500 points in any month of the promo period are entitled to the vSAN promo price until the end of CY2018.

\*Cloud Provider Partners that have not reported vSAN usage since 1/1/2015.

\*Cloud Provider Partners that are already reporting vSAN usage and want to take advantage of the promo to scale their vSAN environment can reach out to their VMware Business Development Manager or Aggregator Partner for evaluation, at the discretion of VMware.

## VMware vSAN

VMware vSAN is a software-defined storage platform that powers VMware Hyper-converged Software solutions, and delivers one of the industry’s best storage value with simple management, high performance, low cost and a robust roadmap intended to support any app, at any scale.

vSAN is available in three editions to VMware Cloud Provider Program Service Providers:

- vSAN Standard
- vSAN Advanced
- vSAN Standard + Enterprise Add-on
- vSAN Advanced + Enterprise Add-on

Review the features of each edition in **Table 5**.

Features	vSAN Standard	vSAN Advanced	vSAN Standard + Enterprise Add-On	vSAN Advanced + Enterprise Add-on
Point Value for Server Version (Per GB per Month for Used Capacity)	0.04	0.06	0.06	0.08
Point Value for Desktop Version (per Concurrent Connection per Month)	2	4.0 (Included in Horizon Advanced / Enterprise)	3	5
Storage Policy-Based Management	✓	✓	✓	✓
Read/Write SSD Caching	✓	✓	✓	✓
Distributed RAID	✓	✓	✓	✓
vSphere Distributed Switch	✓	✓	✓	✓
vSAN Snapshots & Clones	✓	✓	✓	✓
Rack Awareness	✓	✓	✓	✓
Replication (5min RPO)	✓	✓	✓	✓
All-Flash Support	✓	✓	✓	✓
Block Access (iSCSI)	✓	✓	✓	✓
QoS - IOPS Limits	✓	✓	✓	✓
Deduplication & Compression (All Flash Only)		✓		✓
Erasure Coding (All Flash Only)		✓		✓
Stretched Cluster & Nested Fault Domains			✓	✓
Flash Class Encryption			✓	✓

Table 5

VMware vSAN Standard

<b>Description</b>	VMware vSAN Standard supports all-flash (SSD) and hybrid SSD/HDD <sup>2</sup> configurations. To learn more about vSAN, visit: <a href="http://www.vmware.com/products/virtual-san/compare.html">http://www.vmware.com/products/virtual-san/compare.html</a>
<b>Point Value / Charged Per</b>	0.04 points per GB per month for Used Capacity
<b>Promo - VMware Virtual SAN Standard*</b>	0.02 points per GB per month for Used Capacity. <a href="#">See Promotion Details</a>
<b>Components</b>	VMware vSAN Standard
<b>Reporting</b>	<p>As vSAN Standard does not include vCenter Server or vSphere licensing; all use of those products must be reported separately, in addition to the usage of the vSAN Standard product.</p> <p>Usage Meter 3.5 and higher meters VMware vSAN Standard. If you are not using Usage Meter 3.5 or Usage Meter 3.6, please upgrade your version of Usage Meter for future reporting and refer to <a href="#">Appendix B</a> for manual reporting steps.</p> <p>VMware vSAN Standard reporting consists of two parts:</p> <ul style="list-style-type: none"> <li>• Monthly reporting on the vCloud Service Provider Bundle that is installed and being utilized as the basis for vSAN Standard via Usage Meter.</li> <li>• Monthly reporting of vSAN Standard per Used Capacity via Usage Meter 3.5 or 3.6.</li> </ul> <p>NOTE: “Used Capacity” means the storage capacity consumed by all virtual machine disks (VMDK) and not available for new allocations. The point values set forth above shall be reported for each GB of Used Capacity at any time during the applicable reporting period. Service Provider shall report the average amount of consumed capacity for each reporting month.</p>
<b>Support</b>	Production Level Support
<b>More Information</b>	A hardware independent solution, vSAN Standard can be deployed on a wide range of servers. Service Providers have two options for deploying vSAN Standard – a) vSAN Ready Nodes (pre-validated configurations of servers) and b) a component-based hardware compatibility list that enables Service Providers to pick and choose the components they prefer. For the latest information on vSAN Ready Nodes and supported hardware components (I/O controllers, HDDs and SSDs), refer to the VMware Compatibility Guide for vSAN at: <a href="http://www.vmware.com/resources/compatibility/search.php?deviceCategory=vSAN">http://www.vmware.com/resources/compatibility/search.php?deviceCategory=vSAN</a> <a href="https://www.vmware.com/products/vsan.html">https://www.vmware.com/products/vsan.html</a>

<sup>2</sup> SSD = Solid State Drive, HDD = Hard Disk Drive

VMware vSAN Advanced

<b>Description</b>	<p>VMware vSAN Advanced supports all-flash configuration and data efficiency features such as deduplication, compression and erasure coding, in addition to all functionalities of VMware vSAN Standard. VMware vSAN Advanced enables a two-tier all-flash architecture in which flash devices are intelligently used for both caching and data persistence to deliver high, predictable performance and sub-millisecond response times, making it ideal for tier-1 or business-critical workloads. To learn more about VMware vSAN Advanced, visit: <a href="http://www.vmware.com/products/virtual-san/compare.html">http://www.vmware.com/products/virtual-san/compare.html</a></p>
<b>Point Value / Charged Per</b>	0.06 points per GB per month for Used Capacity
<b>Promo - VMware Virtual SAN Advanced*</b>	0.03 points per GB per month for Used Capacity. <a href="#">See Promotion Details</a>
<b>Components</b>	VMware vSAN Advanced
<b>Reporting</b>	<p>As vSAN Advanced does not include vCenter Server or vSphere licensing; all use of those products must be reported separately, in addition to the usage of the vSAN Advanced product.</p> <p>Usage Meter 3.5 and higher meters VMware vSAN Advanced. If you are not using Usage Meter 3.5 or Usage Meter 3.6, please upgrade your version of Usage Meter for future reporting and refer to <a href="#">Appendix B</a> for manual reporting steps.</p> <p>VMware vSAN Advanced system reporting consists of two parts:</p> <ul style="list-style-type: none"> <li>• Monthly reporting on the vCloud Service Provider Bundle that is installed and being utilized as the basis for vSAN Advanced via Usage Meter.</li> <li>• Monthly reporting of vSAN Advanced per Used Capacity via Usage Meter 3.5 or 3.6.</li> </ul> <p>NOTE: “Used Capacity” means the storage capacity consumed by all virtual machine disks (VMDK) and not available for new allocations. The point values set forth above shall be reported for each GB of Used Capacity at any time during the applicable reporting period. Service Provider shall report the average amount of consumed capacity for each reporting month.</p>
<b>Support</b>	Production Level Support
<b>More Information</b>	<p>A hardware independent solution, vSAN Advanced can be deployed on a wide range of servers. Service Providers have two options for deploying vSAN Advanced – a) vSAN Ready Nodes (pre-validated configurations of servers) and b) a component-based hardware compatibility list that enables Service Providers to pick and choose the components they prefer. For the latest information on vSAN Ready Nodes and supported hardware components (I/O controllers, HDDs and SSDs), refer to the VMware Compatibility Guide for vSAN at: <a href="http://www.vmware.com/resources/compatibility/search.php?deviceCategory=v_san">http://www.vmware.com/resources/compatibility/search.php?deviceCategory=v_san</a> <a href="https://www.vmware.com/products/vsan.html">https://www.vmware.com/products/vsan.html</a></p>

VMware vSAN Standard + Enterprise Add-on

<b>Description</b>	VMware vSAN Standard supports all-flash (SSD) and hybrid SSD/HDD <sub>2</sub> configurations. vSAN Enterprise Add-on provides support for Stretched Clusters and Nested Fault Domains, as well as Flash-Class Encryption.
<b>Point Value / Charged Per</b>	0.06 points per GB per month for Used Capacity
<b>Promo - VMware Virtual SAN Standard + Enterprise Add-on*</b>	0.03 points per GB per month for Used Capacity. <a href="#">See Promotion Details</a>
<b>Components</b>	VMware vSAN Standard+Enterprise Add-on
<b>Reporting</b>	<p>VMware vSAN Standard+Enterprise Add-on reporting consists of two parts:</p> <ol style="list-style-type: none"> <li>1. Monthly reporting on the vCloud Service Provider Bundle that is installed and being utilized as the basis for vSAN Standard + Enterprise Add-on via Usage Meter.</li> <li>2. Monthly reporting of vSAN Standard+Enterprise Add-on per Used Capacity via Usage Meter 3.5 or 3.6.</li> </ol> <p>Usage Meter 3.6 meters vSAN Standard+Enterprise Add-on</p> <p>Usage Meter 3.5 does not meter vSAN Standard+Enterprise Add-on. If the Service Provider is not using the space efficiency features of vSAN (e.g. deduplication, compression, erasure coding), the usage detected by Usage Meter for vSAN Enterprise must be reported in the Business Portal as vSAN Standard + Enterprise Add-on.</p> <p>If Usage Meter 3.5 returns vSAN Enterprise report the vSAN Add-on Enterprise when using IOPs QoS/stretched cluster + space efficiency or vSAN Add-on Standard usage when using IOPs QoS /stretched cluster only. If Usage Meter 3.5 reports vSAN Other this refers to usage of vSAN other than the editions offered in the VMware Cloud Provider Program.</p> <p>If the SP is not using Usage Meter 3.5 or Usage Meter 3.6, please upgrade version of Usage Meter for future reporting and refer to <a href="#">Appendix B</a> for manual reporting steps.</p> <p>NOTE: “Used Capacity” means the storage capacity consumed by all virtual machine disks (VMDK) and not available for new allocations. The point values set forth above shall be reported for each GB of Used Capacity at any time during the applicable reporting period. Service Provider shall report the average amount of consumed capacity for each reporting month.</p>
<b>Support</b>	Production Level Support
<b>More Information</b>	<p>A hardware independent solution, vSAN Standard+Enterprise Add-on can be deployed on a wide range of servers. Service Providers have two options for deploying vSAN Standard+Enterprise Add-on – a) vSAN Ready Nodes (pre-validated configurations of servers) and b) a component-based hardware compatibility list that enables Service Providers to pick and choose the components they prefer. For the latest information on vSAN Ready Nodes and supported hardware components (I/O controllers, HDDs and SSDs), refer to the VMware Compatibility Guide for vSAN at:</p> <p><a href="http://www.vmware.com/resources/compatibility/search.php?deviceCategory=vsan">http://www.vmware.com/resources/compatibility/search.php?deviceCategory=vsan</a>  <a href="https://www.vmware.com/products/vsan.html">https://www.vmware.com/products/vsan.html</a></p>



VMware vSAN Advanced + Enterprise Add-on

<b>Description</b>	VMware vSAN Advanced supports all-flash configurations and data efficiency features such as deduplication, compression, and erasure coding, in addition to all functionalities of vSAN Standard. vSAN Advanced enables a two-tier all-flash architecture in which flash devices are intelligently used for both caching and data persistence to deliver high, predictable performance and sub-millisecond response times, making it ideal for tier-1 or business-critical workloads. The vSAN Enterprise Add-on provides support for Stretched Clusters and QoS Limits in vSAN 6.2 and provides support for Stretched Clusters and Nested Fault Domains, as well as Flash-Class Encryption in vSAN 6.6.
<b>Point Value / Charged Per</b>	0.08 points per GB per month for Used Capacity
<b>Promo - VMware Virtual SAN Advanced + Enterprise Add-on*</b>	0.04 points per GB per month for Used Capacity. <a href="#">See Promotion Details</a>
<b>Components</b>	VMware vSAN Advanced + Enterprise Add-on
<b>Reporting</b>	<p>VMware vSAN Advanced + Enterprise Add-on reporting consists of two parts:</p> <ol style="list-style-type: none"> <li>1. Monthly reporting on the vCloud Service Provider Bundle that is installed and being utilized as the basis for vSAN Advanced + Enterprise Add-on via Usage Meter.</li> <li>2. Monthly reporting of vSAN Advanced + Enterprise Add-on per Used Capacity via Usage Meter 3.5 or 3.6.</li> </ol> <p>Usage Meter 3.6 meters vSAN Advanced + Enterprise Add-on</p> <p>Usage Meter 3.5 does not meter vSAN Advanced + Enterprise Add-on. If the Service Provider is using the space efficiency features of vSAN (e.g. dedup, compression, erasure coding), the usage detected by Usage Meter for vSAN Enterprise must be reported in the Business Portal as vSAN Advanced + Enterprise Add-on</p> <p>If Usage Meter 3.5 returns vSAN Enterprise report the vSAN Add-on Enterprise when using IOPs QoS/stretched cluster + space efficiency or vSAN Add-on Standard usage when using IOPs QoS /stretched cluster only. If Usage Meter 3.5 reports vSAN Other this refers to usage of vSAN other than the editions offered in the VMware Cloud Provider Program.</p> <p>If you are not using Usage Meter 3.5 or Usage Meter 3.6, please upgrade your version of Usage Meter for future reporting and refer to <a href="#">Appendix B</a> for manual reporting steps.</p> <p>NOTE: "Used Capacity" means the storage capacity consumed by all virtual machine disks (VMDK) and not available for new allocations. The point values set forth above shall be reported for each GB of Used Capacity at any time during the applicable reporting period. Service Provider shall report the average amount of consumed capacity for each reporting month.</p>
<b>Support</b>	Production Level Support
<b>More Information</b>	<p>A hardware independent solution, vSAN Advanced + Enterprise Add-on can be deployed on a wide range of servers. Service Providers have two options for deploying vSAN Advanced + Enterprise Add-on – a) vSAN Ready Nodes (pre-validated configurations of servers) and b) a component-based hardware compatibility list that enables Service Providers to pick and choose the components they prefer. For the latest information on vSAN Ready Nodes and supported hardware components (I/O controllers, HDDs and SSDs), refer to the VMware Compatibility Guide for vSAN at:</p> <p><a href="http://www.vmware.com/resources/compatibility/search.php?deviceCategory=vsan">http://www.vmware.com/resources/compatibility/search.php?deviceCategory=vsan</a>  <a href="https://www.vmware.com/products/vsan.html">https://www.vmware.com/products/vsan.html</a></p>

## VMware Hyper-Converged Infrastructure

Review **Table 6** for Hyper-Converged Infrastructure product comparison:

Features	vCloud SP Hyper-Converged Infrastructure Bundle*	vSAN Standard + Enterprise Add-On for Hyper-Converged Infrastructure**	vSAN Advanced + Enterprise Add-On for Hyper-Converged Infrastructure**
Points per Month	6 GB Reserved RAM per month	0.06 per 1 GB of Used Capacity	0.08 per 1 GB of Used Capacity
vSphere Enterprise Plus	✓		
vCenter Server Standard	✓		
vRealize Log Insight	✓		
Storage Policy-Based Management		✓	✓
Distributed RAID		✓	✓
vSphere Distributed Switch		✓	✓
vSAN Snapshots & Clones		✓	✓
Rack Awareness		✓	✓
Replication (5min RPO)		✓	✓
All-Flash Support		✓	✓
Block Access (iSCSI)		✓	✓
Read/Write SSD Caching		✓	✓
Hybrid SSD/HDD2 configurations		✓	✓
Stretched Cluster & Nested Fault Domains		✓	✓
QoS - IOPS Limits		✓	✓
Flash Class Encryption		✓	✓
Deduplication & Compression ( All Flash Only)			✓
Erasure Coding ( All Flash Only)			✓

Table 6

\*Required

\*\*Choose either one

VMware vCloud SP Bundle for Hyper-Converged Infrastructure

<b>Description</b>	VMware vCloud SP Bundle for Hyper-converged Infrastructure provides the foundational components required to deliver a vSphere-based Hyper-converged Infrastructure solution, whether running on a Dell EMC VxRail Appliance, or another approved Hyper-converged Infrastructure (HCI) hardware offering. It is targeted at Service Providers who want rapid deployment and expansion, rapid time-to-value, and enhanced lifecycle management to alleviate major pain points around upgrades, patches and customer support.
<b>Point Value / Charged Per</b>	6 points per 1 GB Reserved RAM per month (based on average monthly usage) (GB = 1024 MB)  Total points capped at 24 GB of Reserved RAM per virtual machine (see Reporting and Operational Details)
<b>Components</b>	<ul style="list-style-type: none"> <li>• VMware vSphere Enterprise Plus</li> <li>• VMware vCenter Server Standard</li> <li>• VMware vRealize Log Insight</li> </ul>
<b>Reporting</b>	Service Providers must manually report to their Aggregator all vCloud SP Bundle for Hyper-converged Infrastructure usage each month. Run the License Summary Report and capture the total usage for vSphere Enterprise Plus. Apply the formula (6 points per GB Reserved vRAM). <a href="#">See Reporting and Operational Details</a> When the vCloud SP Bundle for Hyper-converged Infrastructure is deployed on a Dell EMC VxRail Appliance, the Dell EMC VxRail Appliance also comes with vSAN Enterprise pre-installed, and pre-licensed. vSAN Enterprise usage is reported separately, in addition to the vCloud SP Bundle for Hyper-converged Infrastructure (see <i>vSAN Standard + Enterprise Add-on for Hyper-converged Infrastructure</i> or <i>vSAN Advanced + Enterprise Add-on for Hyper-converged Infrastructure</i> ).
<b>Support</b>	Production Level Support
<b>More Information</b>	<a href="https://cloudsolutions.vmware.com/solutions/hci">https://cloudsolutions.vmware.com/solutions/hci</a>
<b>Limitations</b>	<p>The VMware vCloud SP Bundle Hyper-converged Infrastructure is a “restricted” product and only qualifying Service Providers can rent the product from VMware. Only Service Providers with a valid 360 point or higher contract, and whom will be deploying the software on an authorized Hyper-converged Infrastructure hardware solution, are eligible to start the qualification process. Contact your local Business Development Manager or <a href="mailto:partnernetwork@vmware.com">partnernetwork@vmware.com</a> for requirements and additional details to use the product through the VMware Cloud Provider Program.</p> <p>When deployed on a Dell EMC VxRail Appliance, the following terms apply:</p> <ul style="list-style-type: none"> <li>• VxRail Appliances are sold and provided directly by a third party VxRail Appliance Provider. The terms and conditions applicable to the VxRail Appliance (but not the vCloud SP Bundle for Hyper-converged Infrastructure) are available from the VxRail Appliance Provider. The VMware end user license agreement applies to Service Provider’s use of the vCloud SP Bundle for Hyper-converged Infrastructure, but does not apply to Service Provider’s usage of the VxRail Appliance.</li> </ul> <p>Service Provider’s use of the vCloud SP Bundle for Hyper-converged Infrastructure is governed by VMware’s EULA located at: <a href="http://www.vmware.com/download/eula.html">http://www.vmware.com/download/eula.html</a>.</p> <p>Service Provider agrees that VMware may share Service Provider’s information (including reported usage of VxRail Appliances and vCloud SP Bundle for Hyper-converged Infrastructure) to the VxRail Appliance Provider for purposes of providing the VxRail Appliances and vCloud SP Bundle for Hyper-converged</p>

	<p>Infrastructure through the VMware Cloud Provider Program.</p> <ul style="list-style-type: none"> <li>• VxRail Appliances are supported directly by the VxRail Appliance Provider. The support contact information is provided by the VxRail Appliance Provider. VMware does not provide support for VxRail Appliances.</li> </ul> <p>The Service Provider agrees that VxRail Support will be provided for the VxRail Appliance by the VxRail Appliance Provider only to those Service Providers with a valid, active VMware Cloud Provider Program Agreement. If the VMware Cloud Provider Program Agreement is terminated, all rights to both the vCloud SP Bundle for Hyper-converged Infrastructure and Support for the VxRail Appliance are terminated without refund.</p> <ul style="list-style-type: none"> <li>• VxRail Appliances are not provided by VMware and such appliances are therefore “AS IS” without warranty, support or indemnification from VMware. Any product warranty, support or indemnification is provided solely by the VxRail Appliance Provider.</li> </ul>
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## VMware vSAN Standard + Enterprise Add-on for Hyper-Converged Infrastructure

<b>Description</b>	VMware vSAN Standard + Enterprise Add-on for Hyper-converged Infrastructure is designed to facilitate usage reporting for vSAN when deployed on Hyper-converged Infrastructure solutions that ship with vSAN Enterprise licenses. VMware vSAN Standard supports all-flash (SSD) and hybrid SSD/HDD <sub>2</sub> configurations. The vSAN Enterprise Add-on provides support for Stretched Clusters and QoS Limits in vSAN 6.2 and provides support for Stretched Clusters and Nested Fault Domains, as well as Flash-Class Encryption in vSAN 6.6.
<b>Point Value / Charged Per</b>	.06 points per GB per month for Used Capacity
<b>Promo - VMware Virtual SAN Standard + Enterprise Add-on for Hyper-Converged*</b>	0.03 points per GB per month for Used Capacity. <a href="#">See Promotion Details</a>
<b>Components</b>	VMware vSAN Standard+VMware vSAN Enterprise Add-on for Hyper-converged Infrastructure
<b>Reporting</b>	<p>As vSAN Standard + Enterprise Add-on for Hyper-converged Infrastructure does not include vCenter Server or vSphere licensing, all use of those products must be reported separately using the vCloud SP Bundle for Hyper-converged Infrastructure, in addition to the usage of vSAN Standard + Enterprise Add-on for Hyper-converged Infrastructure.</p> <p>Usage Meter 3.5 does not meter vSAN Standard+Enterprise Add-on for Hyper-converged Infrastructure. If the Service Provider is not using the space efficiency features of vSAN (e.g. Deduplication, compression, erasure coding), the usage detected by Usage Meter for vSAN Enterprise must be reported in the Business Portal as vSAN Standard + Enterprise Add-on for Hyper-converged Infrastructure</p> <p>Usage Meter 3.6 meters vSAN Standard + Enterprise Add-on. If the Service Provider is not using the space efficiency features of vSAN (e.g. Deduplication, compression, erasure coding), the usage detected by Usage Meter for vSAN Enterprise must be reported in the Business Portal as: vSAN Standard + Enterprise Add-on for Hyper-converged Infrastructure.</p> <p>Reporting consists of two parts:</p> <ul style="list-style-type: none"> <li>• Monthly reporting on the VMware vCloud SP Bundle for Hyper-converged Infrastructure that is installed and being utilized as the basis for vSAN Standard + Enterprise Add-on for Hyper-converged Infrastructure</li> <li>• Monthly reporting of vSAN Standard + Enterprise Add-on for Hyper-converged Infrastructure per Used Capacity</li> </ul> <p>If the SP is not using Usage Meter 3.5 or Usage Meter 3.6, please upgrade version of Usage Meter for future reporting and refer to <a href="#">Appendix B</a> for manual reporting steps.</p> <p>NOTE: “Used Capacity” means the storage capacity consumed by all virtual machine disks (VMDK) and not available for new allocations. The point values set forth above shall be reported for each GB of Used Capacity at any time during the applicable reporting period. Service Provider shall report the average amount of consumed capacity for each reporting month.</p>

<b>Support</b>	Production Level Support
<b>More Information</b>	<a href="https://cloudsolutions.vmware.com/solutions/hci">https://cloudsolutions.vmware.com/solutions/hci</a>
<b>Limitations</b>	<p>The VMware vSAN Standard + Enterprise Add-on for Hyper-converged Infrastructure is a “restricted” product and only qualifying Service Providers can rent the product from VMware. Only Service Providers with a valid 360 point or higher contract, and whom will be deploying the software on an authorized Hyper-converged Infrastructure hardware offering, are eligible to start the qualification process. Contact your local Business Development Manager or <a href="mailto:partnernetwork@vmware.com">partnernetwork@vmware.com</a> for requirements and additional details to use the product through the VMware Cloud Provider Program.</p> <p>When deployed on a Dell EMC VxRail Appliance, the following terms apply:</p> <p>VxRail Appliances are sold and provided directly by a third party VxRail Appliance Provider. The terms and conditions applicable to the VxRail Appliance (but not the vSAN Standard + Enterprise Add-on for Hyper-converged Infrastructure) are available from the VxRail Appliance Provider. The VMware end user license agreement applies to Service Provider’s use of the vSAN Standard + Enterprise Add-on for Hyper-converged Infrastructure, but does not apply to Service Provider’s usage of the VxRail Appliance. Service Provider’s use of the vSAN Standard + Enterprise Add-on for Hyper-converged Infrastructure is governed by VMware’s EULA located at: <a href="http://www.vmware.com/download/eula.html">http://www.vmware.com/download/eula.html</a></p> <p>Service Provider agrees that VMware may share Service Provider’s information (including reported usage of VxRail Appliances and vSAN Standard + Enterprise Add-on for Hyper-converged Infrastructure) to the VxRail Appliance Provider for purposes of providing the VxRail Appliances and vSAN Standard + Enterprise Add-on for Hyper-converged Infrastructure through the VMware Cloud Provider Program.</p> <p>VxRail Appliances are supported directly by the VxRail Appliance Provider. The support contact information is provided by the VxRail Appliance Provider. VMware does not provide support for VxRail Appliances.</p> <p>The Service Provider agrees that VxRail Support will be provided for the VxRail Appliance by the VxRail Appliance Provider only to those Service Providers with a valid, active VMware Cloud Provider Program Agreement. If the VMware Cloud Provider Program Agreement is terminated, all rights to both the vSAN Standard + Enterprise Add-on for Hyper-converged Infrastructure and Support for the VxRail Appliance are terminated without refund.</p> <p>VxRail Appliances are not provided by VMware and such appliances are therefore “AS IS” without warranty, support or indemnification from VMware. Any product warranty, support or indemnification is provided solely by the VxRail Appliance Provider.</p>

## VMware vSAN Advanced + Enterprise Add-on for Hyper-Converged Infrastructure

<b>Description</b>	VMware vSAN Advanced + Enterprise Add-on for Hyper-converged Infrastructure is designed to facilitate usage reporting for vSAN when deployed on Hyper-converged Infrastructure solutions that ship with vSAN Enterprise licenses. VMware vSAN Advanced supports all-flash configurations and data efficiency features such as deduplication, compression, and erasure coding, in addition to all functionalities of vSAN Standard. vSAN Advanced enables a two-tier all-flash architecture in which flash devices are intelligently used for both caching and data persistence to deliver high, predictable performance and sub-millisecond response times, making it ideal for tier-1 or business-critical workloads. The vSAN Enterprise Add-on provides support for Stretched Clusters and QoS Limits in vSAN 6.2 and provides support for Stretched Clusters and Nested Fault Domains, as well as Flash-Class Encryption in vSAN 6.6.
<b>Point Value / Charged Per</b>	.08 points per GB per month for Used Capacity
<b>Promo - VMware Virtual SAN Advanced+ Enterprise Add-on for Hyper-Converged*</b>	0.04 points per GB per month for Used Capacity. <a href="#">See Promotion Details</a>
<b>Components</b>	VMware vSAN Advanced + VMware vSAN Enterprise Add-on for Hyper-converged Infrastructure
<b>Reporting</b>	<p>As vSAN Advanced+Enterprise Add-on for Hyper-Converged Infrastructure does not include vCenter Server or vSphere licensing, all use of those products must be reported separately using the vCloud SP Bundle for Hyper-converged Infrastructure, in addition to the usage of vSAN Advanced + Enterprise Add-on for Hyper-converged Infrastructure.</p> <p>Usage Meter 3.5 does not meter vSAN Advanced +Enterprise Add-on for Hyper-converged Infrastructure. If the Service Provider is using the space efficiency features of vSAN (e.g. Deduplication, compression, erasure coding), the usage detected by Usage Meter for vSAN Enterprise must be reported in the Business Portal as vSAN Advanced + Enterprise Add-on for Hyper converged Infrastructure</p> <p>Usage Meter 3.6 meters vSAN Advanced + Enterprise Add-on. If the Service Provider is using the space efficiency features of vSAN (e.g. deduplication, compression, erasure coding), the usage detected by Usage Meter for vSAN Enterprise must be reported in the Business Portal as: vSAN Advanced + Enterprise Add-on for Hyper-converged Infrastructure</p> <p>If you are not using Usage Meter 3.5, please upgrade your version of Usage Meter for future reporting and refer to <a href="#">Appendix B</a> for manual reporting steps.</p> <p>Reporting consists of two parts:</p> <ul style="list-style-type: none"> <li>• Monthly reporting on the VMware vCloud SP Bundle for Hyper-converged Infrastructure that is installed and being utilized as the basis for vSAN Advanced + Enterprise Add-on for Hyper-converged Infrastructure.</li> <li>• Monthly reporting of vSAN Advanced + Enterprise Add-on for Hyper-converged Infrastructure per Used Capacity.</li> </ul>



<b>Support</b>	Production Level Support
<b>More Information</b>	<a href="https://cloudsolutions.vmware.com/solutions/hci">https://cloudsolutions.vmware.com/solutions/hci</a>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>The VMware vSAN Advanced + Enterprise Add-on for Hyper-converged Infrastructure is a “restricted” product and only qualifying Service Providers can rent the product from VMware. Only Service Providers with a valid 360 point or higher contract, and whom will be deploying the software on an authorized Hyper-converged Infrastructure hardware offering, are eligible to start the qualification process. Contact your local Business Development Manager or <a href="mailto:partnernetwork@vmware.com">partnernetwork@vmware.com</a> for requirements and additional details to use the product through the VMware Cloud Provider Program.</li> </ul> <p>When deployed on a Dell EMC VxRail Appliance, the following terms apply:</p> <ul style="list-style-type: none"> <li>VxRail Appliances are sold and provided directly by a third party VxRail Appliance Provider. The terms and conditions applicable to the VxRail Appliance (but not the vSAN Advanced + Enterprise Add-on for Hyper-converged Infrastructure) are available from the VxRail Appliance Provider. The VMware end user license agreement applies to Service Provider’s use of the vSAN Advanced + Enterprise Add-on for Hyper-converged Infrastructure, but does not apply to Service Provider’s usage of the VxRail Appliance.</li> </ul> <p>Service Providers of the vSAN Advanced + Enterprise Add-on for Hyper-converged Infrastructure is governed by VMware’s EULA located at: <a href="http://www.vmware.com/download/eula.html">http://www.vmware.com/download/eula.html</a></p> <p>Service Provider agrees that VMware may share Service Provider’s information (including reported usage of VxRail Appliances and vSAN Advanced + Enterprise Add-on for Hyper-converged Infrastructure) to the VxRail Appliance Provider for purposes of providing the VxRail Appliances and vSAN Advanced + Enterprise Add-on for Hyper-converged Infrastructure through the VMware Cloud Provider Program.</p> <ul style="list-style-type: none"> <li>VxRail Appliances are supported directly by the VxRail Appliance Provider. The support contact information is provided by the VxRail Appliance Provider. VMware does not provide support for VxRail Appliances.</li> </ul> <p>The Service Provider agrees that VxRail Support will be provided for the VxRail Appliance by the VxRail Appliance Provider only to those Service Providers with a valid, active VMware Cloud Provider Program Agreement. If the VMware Cloud Provider Program Agreement is terminated, all rights to both the vSAN Advanced + Enterprise Add-on for Hyper-converged Infrastructure and Support for the VxRail Appliance are terminated without refund.</p> <ul style="list-style-type: none"> <li>VxRail Appliances are not provided by VMware and such appliances are therefore “AS IS” without warranty, support or indemnification from VMware. Any product warranty, support or indemnification is provided solely by the VxRail Appliance Provider.</li> </ul>



VMware Horizon Advanced for Hyper-Converged Infrastructure

<b>Description</b>	VMware Horizon Advanced for Hyper-converged Infrastructure is ideal for Service Providers looking to deliver virtual or remote desktops and applications through a single platform to end users – deployed on a Hyper-converged Infrastructure solution. These desktop and application services – including RDS hosted applications, packaged applications with VMware ThinApp, SaaS applications, and even virtualized applications from Citrix – can all be accessed from one unified workspace to provide end users with all of the resources they want, at the speed they expect, with the efficiency the business demands. VMware Horizon Advanced for Hyper-converged Infrastructure offers Service Providers all of the benefits of Horizon View Standard, and additionally extends the power of virtualization with virtual compute and virtual storage to drive down costs, enhance the user experience, and deliver greater business agility.
<b>Point Value / Charged Per</b>	21 points per concurrent connection per month
<b>Components</b>	<ul style="list-style-type: none"> <li>• VMware Horizon Advanced (includes View, RDS Hosted Applications, Mirage and Identity Manager Standard Edition)</li> <li>• VMware vSAN Advanced for Desktop</li> <li>• VMware vSAN Enterprise Add-on for Desktop</li> <li>• VMware ThinApp Client</li> <li>• VMware ThinApp Packager</li> <li>• VMware Workstation</li> <li>• VMware vCenter Server for Desktop</li> <li>• VMware vSphere Enterprise Plus for Desktop</li> <li>• VMware vRealize Log Insight</li> </ul>
<b>Reporting</b>	<p>Service Providers must manually report Horizon Advanced for Hyper-converged Infrastructure usage each month in the VMware Cloud Provider Program Business Portal. Information on the total number of concurrent connections is available through the Horizon Administrator Management Web UI (under View Configuration &gt; Product Licensing and Usage) as shown below. To report the Total Concurrent Connections for a given month, Service Providers shall use the Highest Count and reset the count at the end of each month.</p> <p>Alternatively, Service Providers can query the Horizon View API<sup>3</sup> and obtain the same data using the ConnectionServerHealth service. The sample PowerCLI commands to query the View Connection Server are as follows:</p> <ol style="list-style-type: none"> <li>1. Open PowerCLI and run the following: Import-Module VMware.VimAutomation.HorizonView</li> <li>2. Establish Connection to Horizon (Connect-HVServer): Connect-HVServer -server &lt;connection-server-fqdn&gt; -User &lt;username&gt; - Password &lt;password&gt; -Domain &lt;domain&gt;</li> <li>3. Query Horizon for the connection statistics \$global:DefaultHVServers.ExtensionData.ConnectionServerHealth.ConnectionServerHealth_List().ConnectionData</li> </ol> <p>It is the Service Provider's responsibility to track and report the maximum concurrent</p>

<sup>3</sup> The API module for Horizon requires PowerCLI 6.5 R1 and it is compatible with vSphere 5.5 and higher, and Horizon 7.0.2 and higher. For more information on Horizon View API and PowerCLI, refer to VMware EUC blog at <https://blogs.vmware.com/euc/2017/01/vmware-horizon-7-powercli-6-5.html>

	connections accurately each month. VMware ThinApp Packager and VMware Workstation are for administrator use only.
<b>Support</b>	Production Level Support
<b>More Information</b>	<a href="https://cloudsolutions.vmware.com/solutions/hci">https://cloudsolutions.vmware.com/solutions/hci</a>
<b>Limitations</b>	<p>The VMware Horizon Advanced for Hyper-converged Infrastructure is a restricted product and only qualifying Service Providers can rent the product from VMware. Only Service Providers with a valid 360 point or higher contract, and whom will be deploying the software on an authorized Hyper-converged Infrastructure hardware offering, are eligible to start the qualification process. Contact your local Business Development Manager or <a href="mailto:partnernetwork@vmware.com">partnernetwork@vmware.com</a> for requirements and additional details to use the product through the VMware Cloud Provider Program.</p> <p>When deployed on a Dell EMC VxRail Appliance, the following terms apply:</p> <ul style="list-style-type: none"> <li>• VxRail Appliances are sold and provided directly by a third party VxRail Appliance Provider. The terms and conditions applicable to the VxRail Appliance (but not the Horizon Advanced for Hyper-converged Infrastructure) are available from the VxRail Appliance Provider. The VMware end user license agreement applies to Service Provider's use of the Horizon Advanced for Hyper-converged Infrastructure, but does not apply to Service Provider's usage of the VxRail Appliance.</li> </ul> <p>Service Provider's use of the Horizon Advanced for Hyper-converged Infrastructure is governed by VMware's EULA located at: <a href="http://www.vmware.com/download/eula.html">http://www.vmware.com/download/eula.html</a>.</p> <p>Service Provider agrees that VMware may share Service Provider's information (including reported usage of VxRail Appliances and Horizon Advanced for Hyper-converged Infrastructure) to the VxRail Appliance Provider for purposes of providing the VxRail Appliances and Horizon Advanced for Hyper-converged Infrastructure through the VMware Cloud Provider Program.</p> <ul style="list-style-type: none"> <li>• VxRail Appliances are supported directly by the VxRail Appliance Provider. The support contact information is provided by the VxRail Appliance Provider. VMware does not provide support for VxRail Appliances.</li> </ul> <p>The Service Provider agrees that VxRail Support will be provided for the VxRail Appliance by the VxRail Appliance Provider only to those Service Providers with a valid, active VMware Cloud Provider Program Agreement. If the VMware Cloud Provider Program Agreement is terminated, all rights to both the Horizon Advanced for Hyper-converged Infrastructure and Support for the VxRail Appliance are terminated without refund.</p> <ul style="list-style-type: none"> <li>• VxRail Appliances are not provided by VMware and such appliances are therefore "AS IS" without warranty, support or indemnification from VMware. Any product warranty, support or indemnification is provided solely by the VxRail Appliance Provider.</li> </ul>

**VMware Horizon Enterprise for Hyper-Converged Infrastructure**

<b>Description</b>	VMware Horizon Enterprise for Hyper-converged Infrastructure is ideal for Service Providers looking to automate the management and delivery of virtual or remote desktops and applications, through a single platform to end users - deployed on a Hyper-converged Infrastructure solution. VMware Horizon Enterprise for Hyper-converged Infrastructure offers Service Providers all of the benefits of Horizon Advanced for Hyper-converged Infrastructure and additionally streamlines management and provisioning with advanced self-service and monitoring capabilities to reduce operating costs and provide IT organizations with the tools to be more responsive to changing business requirements. Horizon Enterprise supports RHEL, Ubuntu, CentOS and NeoKylin Linux in addition to Microsoft Windows operating system.
<b>Point Value / Charged Per</b>	30 points per concurrent connection per month
<b>Components</b>	<ul style="list-style-type: none"> <li>• VMware Horizon Enterprise (includes View for Windows and Linux, RDS Hosted Applications, Mirage, Identity Manager Standard Edition, vRealize Operations for Horizon Adapter and Instant Clones)</li> <li>• VMware App Volumes Enterprise and User Environment Manager</li> <li>• VMware vSAN Advanced for Desktop</li> <li>• VMware vSAN Enterprise Add-on for Desktop</li> <li>• VMware Fusion Professional</li> <li>• VMware ThinApp Client</li> <li>• VMware ThinApp Packager</li> <li>• VMware Workstation</li> <li>• VMware vCenter Server for Desktop</li> <li>• VMware vSphere Enterprise Plus for Desktop</li> <li>• VMware vRealize Log Insight</li> </ul>
<b>Reporting</b>	<p>Service Providers must manually report Horizon Enterprise for Hyper-converged Infrastructure usage each month in the VMware Cloud Provider Program Business Portal. Information on the total number of concurrent connections is available through the Horizon Administrator Management Web UI (under View Configuration &gt; Product Licensing and Usage) as shown below. To report the Total Concurrent Connections for a given month, Service Providers shall use the Highest Count and reset the count at the end of each month.</p> <p>Alternatively, Service Providers can query the Horizon View API<sup>4</sup> and obtain the same data using the ConnectionServerHealth service. The sample PowerCLI commands to query the View Connection Server are as follows:</p> <ol style="list-style-type: none"> <li>1. Open PowerCLI and run the following: Import-Module VMware.VimAutomation.HorizonView</li> <li>2. Establish Connection to Horizon (Connect-HVServer): Connect-HVServer -server &lt;connection-server-fqdn&gt; -User &lt;username&gt; -Password &lt;password&gt; -Domain &lt;domain&gt;</li> <li>3. Query Horizon for the connection statistics \$global:DefaultHVServers.ExtensionData.ConnectionServerHealth.ConnectionServerHealth_List().ConnectionData</li> </ol> <p>It is the Service Provider's responsibility to track and report the maximum concurrent connections accurately each month. VMware ThinApp Packager and VMware Workstation are</p>

<sup>4</sup> The API module for Horizon requires PowerCLI 6.5 R1 and it is compatible with vSphere 5.5 and higher, and Horizon 7.0.2 and higher. For more information on Horizon View API and PowerCLI, refer to VMware EUC blog at <https://blogs.vmware.com/euc/2017/01/vmware-horizon-7-powercli-6-5.html>

	for administrator use only. Service Providers must manually report to their Aggregator all Horizon Enterprise for Hyper-Converged Infrastructure usage each month. Information on the total number of concurrent connections is available through the Horizon Administrator Management Web UI (under View Configuration > Product Licensing and Usage) as shown below. To report the Total Concurrent Connections for a given month, Service Providers shall use the Highest Count and reset the count at the end of each month.
<b>Support</b>	Production Level Support
<b>More Information</b>	<a href="https://cloudsolutions.vmware.com/solutions/hci">https://cloudsolutions.vmware.com/solutions/hci</a>

# DESKTOP AND APPLICATION VIRTUALIZATION

## VMware App Volumes

VMware App Volumes is a portfolio of integrated application and user management solutions for VMware Horizon, Citrix XenApp and XenDesktop, and RDSH virtual environments. These solutions take desktop and application environments to the next level by providing faster application delivery, unified application and user management, while reducing IT costs by up to 70%. To learn more about VMware App Volumes visit: <http://www.vmware.com/products/appvolumes/>

VMware App Volumes is available to service providers in three editions:

- App Volumes Standard
- App Volumes Advanced
- App Volumes Enterprise

Features	Standard	Advanced	Enterprise
<b>Point Value / Charged Per</b>	<b>4</b>	<b>7</b>	<b>9</b>
VMware App Volumes Standard and User Environment Manager	✓	✓	✓
VMware ThinApp Client		✓	✓
VMware ThinApp Packager		✓	✓
VMware Workstation		✓	✓
VMware vRealize Operations Adapter for Published Applications			✓
VMware vRealize Operations Manager for Published Applications			✓

Table 7

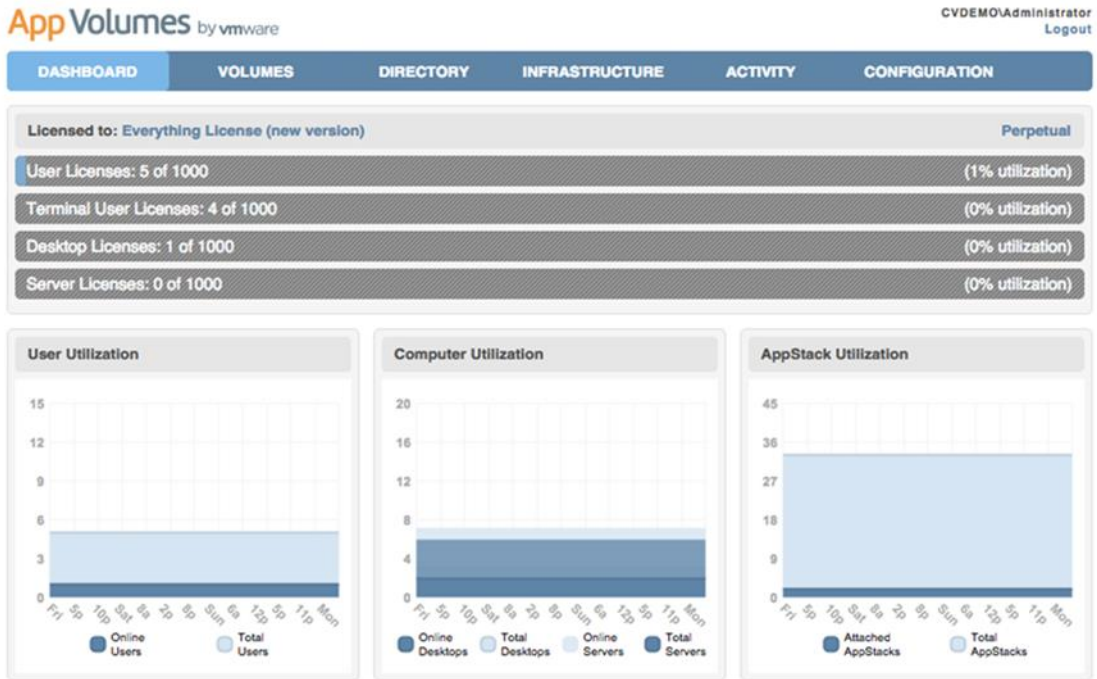


Figure 1

VMware App Volumes Standard

<b>Description</b>	VMware App Volumes Standard is an application and user management solution for small and medium tenants with virtual environments powered by Horizon, Citrix XenApp and XenDesktop, and RDSH.
<b>Point Value / Charged Per</b>	4 points per concurrent connection per month
<b>Components</b>	VMware App Volumes Standard and User Environment Manager
<b>Reporting</b>	Service Providers must manually report App Volumes Standard usage each month in the VMware Cloud Provider Program Business Portal. Information on the number of concurrent connections is available through the App Volumes Manager interface via the Dashboard Primary tab shown above. To report number of concurrent connections for a given month, Service Providers shall use maximum “Online Users” in the “User Utilization” chart and/or maximum “Online Desktops” and “Online Servers” in the “Computer Utilization” chart depending on what they attach AppStack to – i.e. user, machine, or both. An AppStack is a virtual disk containing applications, disks, and folders. There is no automated report that keeps track of the maximum concurrent connections at this time, so it is the Service Provider’s responsibility to track and report this information accurately each month.
<b>Support</b>	Production Level Support
<b>More Information</b>	<a href="https://www.vmware.com/products/appvolumes.html">https://www.vmware.com/products/appvolumes.html</a>



## VMware App Volumes Advanced

<b>Description</b>	VMware App Volumes Advanced is an integrated application and user management solution for enterprise customers with virtual environments powered by Horizon, Citrix XenApp and XenDesktop, and RDSH.
<b>Point Value / Charged Per</b>	7 points per concurrent connection per month
<b>Components</b>	<ul style="list-style-type: none"> <li>• VMware App Volumes Advanced and User Environment Manager</li> <li>• VMware ThinApp Client</li> <li>• VMware ThinApp Packager</li> <li>• VMware Workstation</li> </ul>
<b>Reporting</b>	Service Providers must manually report VMware App Volumes Advanced in the VMware Cloud Provider Program Business Portal. Information on the number of concurrent connections is available through the App Volumes Manager interface via the Dashboard Primary tab shown above. To report number of concurrent connections for a given month, Service Providers shall use maximum "Online Users" in the "User Utilization" chart and/or maximum "Online Desktops" and "Online Servers" in the "Computer Utilization" chart depending on what they attach AppStack to – i.e. user, machine, or both. An AppStack is a virtual disk containing applications, disks, and folders. There is no automated report that keeps track of the maximum concurrent connections at this time, so it is the Service Provider's responsibility to track and report this information accurately each month. ThinApp Packager and Workstation are for administrator use only.
<b>Support</b>	Production Level Support
<b>More Information</b>	<a href="https://www.vmware.com/products/appvolumes.html">https://www.vmware.com/products/appvolumes.html</a>

## VMware App Volumes Enterprise

<b>Description</b>	VMware App Volumes Enterprise is a complete enterprise application and user management solution that provides application delivery, isolation, and end-to-end monitoring for Citrix XenApp and XenDesktop environments.
<b>Point Value / Charged Per</b>	9 points per concurrent connection per month
<b>Components</b>	<ul style="list-style-type: none"> <li>• VMware App Volumes Enterprise and User Environment Manager</li> <li>• VMware ThinApp Client</li> <li>• VMware ThinApp Packager</li> <li>• VMware Workstation</li> <li>• VMware vRealize Operations Adapter for Published Applications</li> <li>• VMware vRealize Operations Manager for Published Applications</li> </ul>
<b>Reporting</b>	Service Providers must manually report App Volumes Enterprise usage each month in the VMware Cloud Provider Program Business Portal. Information on the number of concurrent connections is available through the App Volumes Manager interface via the Dashboard Primary tab shown in figure 1. To report number of concurrent connections for a given month, Service Providers shall use maximum "Online Users" in the "User Utilization" chart and/or maximum "Online Desktops" and "Online Servers" in the "Computer Utilization" chart depending on what they attach AppStack to – i.e. user, machine, or both. An AppStack is a virtual disk containing applications, disks, and folders. There is no automated report that keeps track of the maximum concurrent connections at this time, so it is the Service Provider's responsibility to track and report this information accurately each month. ThinApp Packager and Workstation are for administrator use only.
<b>Support</b>	Production Level Support
<b>More Information</b>	<a href="https://www.vmware.com/products/appvolumes.html">https://www.vmware.com/products/appvolumes.html</a>

## VMware Desktop and Application Virtualization

VMware desktop and application virtualization solutions provide service providers with a new streamlined approach to deliver, protect, and manage Windows or Linux virtualized desktops and applications, while containing costs and ensuring end users can work anytime, anywhere across any device. Review Table 7 for features details.

Features\Editions	Horizon Bundle RDSH Edition	Horizon DaaS Bundle - VDI Edition	Horizon Standard	Horizon Advanced	Horizon Enterprise	Horizon for Linux	Horizon Apps Standard	Horizon Apps Advanced
Points per Month	13 per Total Allocated Quota	16 per Total Allocated Quota	12 per Concurrent Connection	19 per Concurrent Connection	28 per Concurrent Connection	7 per Concurrent Connection	11 per Concurrent Connection	18 per Concurrent Connection
VDI (Windows Desktops only)		✓	✓	✓	✓			
View Manager			✓	✓	✓	✓	✓	✓
View Composer			✓	✓	✓	✓		
Persona		✓	✓	✓	✓	✓		
ThinApp	✓	✓	✓	✓	✓		✓	✓
VMware Workstation			✓	✓	✓		✓	✓
vCenter for Desktop	✓	✓	✓	✓	✓	✓	✓	✓
vSphere Ent plus for Desktop	✓	✓	✓	✓	✓	✓	✓	✓
RDS Published Apps	✓			✓	✓		✓	✓
Mirage				✓	✓		✓	
Identity manager Standard				✓	✓		✓	✓
vSAN Adv. for Desktop				✓	✓			
Linux Desktops					✓	✓		
vRealize Operations for Horizon					✓			
App Volumes					✓			✓
User Environment Manager					✓		✓	✓
Instant Clones					✓			✓
ThinApp Client	✓	✓						
ThinApp Packager	✓	✓						
(administrator use only)								
VMware Workstation (administrator use only)	✓	✓						

Table 8

## VMware Horizon DaaS Bundles

VMware Horizon DaaS Bundle is the market leading solution providing Service Provider with a low cost, subscription-based, multi-tenant, multi-datacenter and secure Desktop-as-a-Service solution. Designed to address enterprise-class scale, the solution also provides simplicity and ease-of-use from large to small customers. Horizon DaaS Bundle allows enterprises to create or extend their Virtual Desktop Infrastructure (VDI) footprint without increasing the financial burden of infrastructure management and ownership. Service Provider can provide enterprises with a fully customizable desktop service accessible via the Internet or dedicated network from any location, on any compatible device and with the same user experience as traditional on premises PCs.

There are two Horizon DaaS Bundles available to VMware Cloud Provider Program Service Providers:

- VMware Horizon Bundle RDSH Edition
- VMware Horizon Bundle VDI Edition

### VMware Horizon Bundle RDSH Edition

<b>Description</b>	RDSH Edition applies to Remote Desktop Session Host (RDSH) Desktop and Application (i.e. Terminal Services Session-based) workloads.
<b>Point Value / Charged Per</b>	13 points per Total Allocated Quota for RDSH Connections per month
<b>Components</b>	<ul style="list-style-type: none"> <li>• VMware Horizon DaaS Platform which includes right to host session desktop and applications (Windows Server OS with RDSH)</li> <li>• VMware Identity Manager Standard Edition</li> <li>• VMware ThinApp Client</li> <li>• VMware ThinApp Packager for administrator use only</li> <li>• VMware Workstation for administrator use only</li> <li>• VMware vCenter Server for Desktop</li> <li>• VMware vSphere Enterprise Plus for Desktop</li> </ul>
<b>Reporting</b>	Service Providers must report the total allocated quota for RDSH connections associated with the use of the Horizon DaaS Bundle – RDSH Edition to their Aggregator each month using Usage Meter 3.5. meters total allocated quota for RDSH for the month and it resets at start of each month.
<b>Support</b>	Production Level Support
<b>More Information</b>	<p><a href="https://www.vmware.com/products/daas-vspp.html">https://www.vmware.com/products/daas-vspp.html</a></p> <p>The Horizon DaaS Bundle – RDSH Edition is a restricted product and only qualifying Service Providers can rent the product from VMware. Only Service Providers with a valid 10,800 point or higher contract are eligible to start the qualification process. Contact your local Business Development Manager or <a href="mailto:partnernetwork@vmware.com">partnernetwork@vmware.com</a> on requirements and additional details to use the product through the VMware Cloud Provider Program. For VMware and 3rd party component compatibility, refer to the Horizon DaaS Platform blueprint.</p>

VMware Horizon DaaS Bundle – VDI Edition

<b>Description</b>	VDI Edition applies to VDI Desktop and Application workloads.
<b>Point Value / Charged Per</b>	16 points per Total Allocated Quota for VDI Connections per month
<b>Components</b>	<ul style="list-style-type: none"> <li>• VMware Horizon DaaS Platform which includes right to host VDI desktop and applications (Windows Client OS, Windows Server OS, Linux OS)</li> <li>• VMware Identity Manager Standard Edition</li> <li>• VMware ThinApp Client</li> <li>• VMware ThinApp Packager for administrator use only</li> <li>• VMware Workstation for administrator use only</li> <li>• VMware vCenter Server for Desktop</li> <li>• VMware vSphere Enterprise Plus for Desktop</li> </ul>
<b>Reporting</b>	Service Providers must report the total allocated quota for VDI connections associated with the use of the Horizon DaaS Bundle – VDI Edition to their Aggregator each month using Usage Meter 3.5. Usage Meter 3.5 meters total allocated quota for VDI for the month and it resets at start of each month.
<b>Support</b>	Production Level Support
<b>More Information</b>	<p><a href="https://www.vmware.com/products/daas-vspp.html">https://www.vmware.com/products/daas-vspp.html</a></p> <p>The Horizon DaaS Bundle – VDI Edition is a restricted product and only qualifying Service Providers can rent the product from VMware. Only Service Providers with a valid 10,800 point or higher contract are eligible to start the qualification process. Contact your local Business Development Manager or <a href="mailto:partnernetwork@vmware.com">partnernetwork@vmware.com</a> on requirements and additional details to use the product through the VMware Cloud Provider Program. For VMware and 3rd party component compatibility, refer to the Horizon DaaS Platform blueprint.</p>

VMware Desktop Disaster Recovery for Horizon DaaS Bundle(s)

<b>Description</b>	<p>VMware Desktop Disaster Recovery (DR) for Horizon DaaS Bundle(s) enables Service Providers to easily protect their tenants' business and ensure workforce continuity with cloud-hosted desktops and apps at a fraction of the cost. It opens new opportunities for Service Providers to offer cloud-based virtual desktop and apps as insurance to enterprises that use a) on premises physical desktop infrastructure, b) on premises virtual desktop infrastructure or c) cloud-hosted desktop and apps for their normal business operation. In the event of a disaster, Service Providers can get tenant users up and running quickly with the speed of the cloud and predictable cloud economics. Tenants can be productive instantly, from any device, anywhere, with a secure workspace connected to corporate resources.</p>
<b>Point Value / Charged Per</b>	<p>4 points per Total Allocated Insurance Quota for VDI and RDSH Connections per month ("insurance rate")</p> <p>The Desktop DR option allows partners to deploy Horizon DaaS bundle(s) in either reservation mode or active (i.e. normal) mode as follows:</p> <ol style="list-style-type: none"> <li>1. Partner offers desktop "reservation" capacity and pays "insurance rate" to VMware. Desktop reservation capacity gives the tenant the right to take the reserved desktop capacity out of standby for a disaster event.</li> <li>2. When tenants declare a disaster, partner "activates" desktops and reports "regular rate" of Horizon DaaS Bundle(s) to VMware during the disaster period with a minimum monthly commitment. For information on "regular rate" for VDI and RDSH Editions of VMware Horizon DaaS Bundle(s), refer to the "VMware Horizon DaaS Bundle – VDI Edition" and "VMware Horizon DaaS Bundle - RDSH Edition" sections respectively.</li> <li>3. Partner can select any mix of reserved and active desktops.</li> </ol>
<b>Components</b>	<p>VMware Desktop DR for "Horizon DaaS Bundle – VDI Edition" and "Horizon DaaS Bundle – RDSH Edition"</p>
<b>Reporting</b>	<p>For reserved cloud-hosted desktops and apps, Service Providers must manually report the total allocated insurance quota for VDI and RDSH connections associated with the use of the "Horizon DaaS Bundle - VDI Edition" and "Horizon DaaS Bundle - RDSH Edition" respectively to their Aggregator each month. This data shall include the aggregate total insurance quota allocation of the "Horizon DaaS Bundle - VDI Edition" and "Horizon DaaS Bundle - RDSH Edition" as well as the name, total insurance quota allocation, and zip code or country code for each Hosting Customer. For "Horizon DaaS Bundle - VDI Edition", it is the total number of VMs that can be powered on for all tenants based on Desktop Model insurance quotas. For "Horizon DaaS Bundle - RDSH Edition", it is the total number of RDSH sessions allocated to all tenants based on Session Model insurance quotas. There is no automated report that keeps track of the total insurance allocated quota for VDI or RDSH connections at this time, so it is the Service Provider's responsibility to track and report this information accurately each month.</p>
<b>Support</b>	<p>Production Level Support</p>
<b>More Information</b>	<p>The Desktop DR for Horizon DaaS Bundle(s) is a restricted product and only qualifying Service Providers can use the product from VMware. Only Service Providers with a valid 10,800 point or higher contract are eligible to start with qualification process. Contact your local Business Development Manager or <a href="mailto:partnernetwork@vmware.com">partnernetwork@vmware.com</a> on requirements and additional details to use the product through the VMware Cloud Provider Program.</p>

## VMware Horizon

VMware Horizon 7 provides a streamlined approach to delivering, protecting and managing virtual desktops (VDI) and apps while containing costs and ensuring that end users can work anytime, anywhere, across any device. To learn more about VMware Horizon visit: <https://www.vmware.com/products/horizon.html>. Review Table 8 for feature details.

VMware Horizon 7 is available to VMware Cloud Provider Service Providers in three editions:

- [VMware Horizon Standard](#)
- [VMware Horizon Advanced](#)
- [VMware Horizon Enterprise](#)

Manual Reporting for Horizon Screenshot:

The screenshot shows the VMware Horizon 7 Administrator interface. The left sidebar contains navigation options like Dashboard, Users and Groups, Catalog, Resources, Monitoring, Policies, and View Configuration. The main content area is titled 'Licensing and Usage'. Under the 'Usage' section, there are two buttons: 'Reset Highest Count' and 'Reset Named Users Count'. Below these buttons is a table with the following data:

Session Mode	Current	Highest
Total Concurrent Connections	0	3
Total Named Users	0	N/A
Detailed Connection Breakdown		
Total Remote	0	3
Active - full virtual machines	0	3
Active - linked clone	0	1
Active - other machine sources	0	0
Active - applications	0	0

Figure 2

VMware Horizon Standard

<b>Description</b>	VMware Horizon Standard is an ideal solution to deliver simple powerful Virtual Desktop Infrastructure (VDI) with great user experience. VMware Horizon Standard hosted desktops eliminate the burden for customers of running and managing their desktops in-house. Service Providers can use VMware Horizon Standard to provide their customers with access (through a secure Internet connection) to a fully customizable desktop from any location, or on any compatible device, with the same user experience as on traditional PCs.
<b>Point Value / Charged Per</b>	12 points per concurrent connection per month
<b>Components</b>	<ul style="list-style-type: none"> <li>• VMware Horizon (includes View Manager, View Composer and Persona Management)</li> <li>• VMware ThinApp Client</li> <li>• VMware ThinApp Packager</li> <li>• VMware Workstation</li> <li>• VMware vCenter Server Desktop</li> <li>• VMware vSphere Enterprise Plus for Desktop</li> </ul>
<b>Reporting</b>	<p>Service Providers must manually report Horizon Standard usage each month in the VMware Cloud Provider Program Business Portal. Information on the total number of concurrent connections is available through the Horizon Administrator Management Web UI (under View Configuration &gt; Product Licensing and Usage) as shown above. To report the Total Concurrent Connections for a given month, Service Providers shall use the Highest Count and reset the count at the end of each month.</p> <p>Alternatively, Service Providers can query the Horizon View API5 and obtain the same data using the ConnectionServerHealth service. The sample PowerCLI commands to query the View Connection Server are as follows:</p> <ol style="list-style-type: none"> <li>1. Open PowerCLI and run the following: Import-Module VMware.VimAutomation.HorizonView</li> <li>2. Establish Connection to Horizon (Connect-HVServer): Connect-HVServer -server &lt;connection-server-fqdn&gt; -User &lt;username&gt; -Password &lt;password&gt; -Domain &lt;domain&gt;</li> <li>3. Query Horizon for the connection statistics \$global:DefaultHVServers.ExtensionData.ConnectionServerHealth.ConnectionServerHealth_List().ConnectionData</li> </ol> <p>It is the Service Provider's responsibility to track and report the maximum concurrent connections accurately each month. VMware ThinApp Packager and VMware Workstation are for administrator use only.</p>
<b>Support</b>	Production Level Support
<b>More Information</b>	<a href="https://www.vmware.com/products/horizon.html">https://www.vmware.com/products/horizon.html</a>

<sup>5</sup> The API module for Horizon requires PowerCLI 6.5 R1 and it is compatible with vSphere 5.5 and higher, and Horizon 7.0.2 and higher. For more information on Horizon View API and PowerCLI, refer to VMware EUC blog at <https://blogs.vmware.com/euc/2017/01/vmware-horizon-7-powercli-6-5.html>



VMware Horizon Advanced

<b>Description</b>	VMware Horizon Advanced is ideal for customers looking to deliver virtual or remote desktops and applications through a single platform to end users. These desktop and application services – including RDS hosted applications, packaged applications with VMware ThinApp, SaaS applications, and even virtualized applications from Citrix – can all be accessed from one unified workspace to provide end users with all of the resources they want, at the speed they expect, with the efficiency business demands. VMware Horizon Advanced offers customers all of the benefits of the Horizon View Standard and additionally extends the power of virtualization with virtual compute and virtual storage to drive down costs, enhance the user experience, and deliver greater business agility.
<b>Point Value / Charged Per</b>	19 points per concurrent connection per month
<b>Components</b>	<ul style="list-style-type: none"> <li>• VMware Horizon Advanced (includes View, RDS Hosted Applications, Mirage, and Identity Manager Standard Edition)</li> <li>• VMware vSAN Advanced for Desktop</li> <li>• VMware Fusion Professional</li> <li>• VMware ThinApp Client</li> <li>• VMware ThinApp Packager</li> <li>• VMware Workstation</li> <li>• VMware vCenter Server for Desktop</li> <li>• VMware vSphere Enterprise Plus for Desktop</li> </ul>
<b>Reporting</b>	<p>Service Providers must manually report Horizon Advanced usage each month in the VMware Cloud Provider Program Business Portal. Information on the total number of concurrent connections is available through the Horizon Administrator Management Web UI (under View Configuration &gt; Product Licensing and Usage) as shown above. To report the Total Concurrent Connections for a given month, Service Providers shall use the Highest Count and reset the count at the end of each month.</p> <p>Alternatively, Service Providers can query the Horizon View API<sup>6</sup> and obtain the same data using the ConnectionServerHealth service. The sample PowerCLI commands to query the View Connection Server are as follows:</p> <ol style="list-style-type: none"> <li>1. Open PowerCLI and run the following:             <ol style="list-style-type: none"> <li>a. Import-Module VMware.VimAutomation.HorizonView</li> </ol> </li> <li>2. Establish Connection to Horizon (Connect-HVServer):             <ol style="list-style-type: none"> <li>a. Connect-HVServer -server &lt;connection-server-fqdn&gt; -User &lt;username&gt; -Password &lt;password&gt; -Domain &lt;domain&gt;</li> </ol> </li> <li>3. Query Horizon for the connection statistics             <ol style="list-style-type: none"> <li>a. \$global:DefaultHVServers.ExtensionData.ConnectionServerHealth.ConnectionServerHealth_List().ConnectionData</li> </ol> </li> </ol> <p>It is the Service Provider's responsibility to track and report the maximum concurrent connections accurately each month. VMware ThinApp Packager and VMware Workstation are for administrator use only.</p>
<b>Support</b>	Production Level Support
<b>More Information</b>	<a href="https://www.vmware.com/products/horizon.html">https://www.vmware.com/products/horizon.html</a>

<sup>6</sup> The API module for Horizon requires PowerCLI 6.5 R1 and it is compatible with vSphere 5.5 and higher, and Horizon 7.0.2 and higher. For more information on Horizon View API and PowerCLI, refer to VMware EUC blog at <https://blogs.vmware.com/euc/2017/01/vmware-horizon-7-powercli-6-5.html>

## VMware Horizon Enterprise

<b>Description</b>	VMware Horizon Enterprise is ideal for customers looking to automate the management and delivery of virtual or remote desktops and applications, through a single platform to end users. VMware Horizon Enterprise offers customers all of the benefits of the Horizon Advanced and additionally streamlines management and provisioning with advanced self-service and monitoring capabilities to reduce operating costs and provide IT organizations with the tools to be more responsive to changing business requirements. Horizon Enterprise supports RHEL, Ubuntu, CentOS and NeoKylin Linux in addition to Microsoft Windows operating system.
<b>Point Value / Charged Per</b>	28 points per concurrent connection per month
<b>Components</b>	<ul style="list-style-type: none"> <li>• VMware Horizon Enterprise (includes View for Windows and Linux, RDS Hosted Applications, Mirage, Identity Manager Standard Edition, vRealize Operations for Horizon Adapter, and Instant Clones)</li> <li>• VMware App Volumes Enterprise and User Environment Manager</li> <li>• VMware vRealize Operations for Horizon</li> <li>• VMware vSAN Advanced for Desktop</li> <li>• VMware Fusion Professional</li> <li>• VMware ThinApp Client</li> <li>• VMware ThinApp Packager</li> <li>• VMware Workstation</li> <li>• VMware vCenter Server for Desktop</li> <li>• VMware vSphere Enterprise Plus for Desktop</li> </ul>
<b>Reporting</b>	<p>Service Providers must manually report Horizon Advanced usage each month in the VMware Cloud Provider Program Business Portal. Information on the total number of concurrent connections is available through the Horizon Administrator Management Web UI (under View Configuration &gt; Product Licensing and Usage) as shown above. To report the Total Concurrent Connections for a given month, Service Providers shall use the Highest Count and reset the count at the end of each month.</p> <p>Alternatively, Service Providers can query the Horizon View API<sup>7</sup> and obtain the same data using the ConnectionServerHealth service. The sample PowerCLI commands to query the View Connection Server are as follows:</p> <ol style="list-style-type: none"> <li>1. Open PowerCLI and run the following:  <pre>Import-Module VMware.VimAutomation.HorizonView</pre> </li> <li>2. Establish Connection to Horizon (Connect-HVServer):  <pre>Connect-HVServer -server &lt;connection-server-fqdn&gt; -User &lt;username&gt; -Password &lt;password&gt; -Domain &lt;domain&gt;</pre> </li> <li>3. Query Horizon for the connection statistics  <pre>\$global:DefaultHVServers.ExtensionData.ConnectionServerHealth.ConnectionServerHealth_List().ConnectionData</pre> </li> </ol> <p>It is the Service Provider's responsibility to track and report the maximum concurrent connections accurately each month. VMware ThinApp Packager and VMware Workstation are for administrator use only.</p>
<b>Support</b>	Production Level Support
<b>More Information</b>	<a href="https://www.vmware.com/products/horizon.html">https://www.vmware.com/products/horizon.html</a>

<sup>7</sup> The API module for Horizon requires PowerCLI 6.5 R1 and it is compatible with vSphere 5.5 and higher, and Horizon 7.0.2 and higher. For more information on Horizon View API and PowerCLI, refer to VMware EUC blog at <https://blogs.vmware.com/euc/2017/01/vmware-horizon-7-powercli-6-5.html>

VMware Horizon for Linux

<b>Description</b>	VMware Horizon for Linux extends the benefits of VDI to Linux users. Providing centralized, secure and simplified management for Linux desktops, Horizon for Linux allows organizations to help reduce their capital expenditures, eliminate Microsoft desktop licensing costs and save on day-to-day operational expenses. In addition VMware Horizon for Linux support send users with easy access to Linux applications and the same great user experience across devices and locations. Horizon for Linux supports RHEL, Ubuntu, CentOS and NeoKylin operating systems.
<b>Point Value / Charged Per</b>	7 points per concurrent connection per month
<b>Components</b>	<ul style="list-style-type: none"> <li>• VMware Horizon for Linux (includes View Manager, View Composer and Persona Management) for Linux</li> <li>• VMware vCenter Server Desktop</li> <li>• VMware vSphere Enterprise Plus for Desktop</li> </ul>
<b>Reporting</b>	<p>Service Providers must manually report Horizon for Linux usage each month in the VMware Cloud Provider Program Business Portal. Information on the total number of concurrent connections is available through the Horizon Administrator Management Web UI (under View Configuration &gt; Product Licensing and Usage) as shown above. To report the Total Concurrent Connections for a given month, Service Providers shall use the Highest Count and reset the count at the end of each month.</p> <p>Alternatively, Service Providers can query the Horizon View API<sup>8</sup> and obtain the same data using the ConnectionServerHealth service. The sample PowerCLI commands to query the View Connection Server are as follows:</p> <ol style="list-style-type: none"> <li>1. Open PowerCLI and run the following: Import-Module VMware.VimAutomation.HorizonView</li> <li>2. Establish Connection to Horizon (Connect-HVServer): Connect-HVServer -server &lt;connection-server-fqdn&gt; -User &lt;username&gt; - Password &lt;password&gt; -Domain &lt;domain&gt;</li> <li>3. Query Horizon for the connection statistics \$global:DefaultHVServers.ExtensionData.ConnectionServerHealth.ConnectionServerHealth_List().ConnectionData</li> </ol> <p>It is the Service Provider's responsibility to track and report the maximum concurrent connections accurately each month. VMware ThinApp Packager and VMware Workstation are for administrator use only.</p>
<b>Support</b>	Production Level Support
<b>More Information</b>	<a href="https://www.vmware.com/products/horizon.html">https://www.vmware.com/products/horizon.html</a>

<sup>8</sup> The API module for Horizon requires PowerCLI 6.5 R1 and it is compatible with vSphere 5.5 and higher, and Horizon 7.0.2 and higher. For more information on Horizon View API and PowerCLI, refer to VMware EUC blog at <https://blogs.vmware.com/euc/2017/01/vmware-horizon-7-powercli-6-5.html>

## VMware Horizon Apps

VMware Horizon Apps enables Service Providers to deliver virtual apps securely to any device, anywhere with centralized management and rich, adaptive user experience. It improves end users' productivity with quick and easy access to their Windows applications alongside SaaS applications, and mobile applications through a single unified digital workspace. Based on Horizon 7, it is a great choice for customers who need published applications (i.e. Remote Desktop Services - RDS) but don't need VDI desktops. Refer to Table 8 for feature details. To learn more about VMware Horizon visit: <http://www.vmware.com/products/horizon-apps.html>.

VMware Horizon Apps is available to VMware Cloud Provider Program Service Providers in two editions:

- VMware Horizon Apps Standard
- VMware Horizon Apps Advanced

### VMware Horizon Apps Standard

<b>Description</b>	VMware Horizon Apps Standard offers reliable and secure published applications delivery with tools and features that simplify management and provide a great user experience.
<b>Point Value / Charged Per</b>	11 points per concurrent connection per month
<b>Components</b>	<ul style="list-style-type: none"> <li>• VMware Horizon Apps Standard (includes RDS Hosted Applications and Identity Manager Standard Edition but not Linked Clones)</li> <li>• VMware User Environment Manager</li> <li>• VMware ThinApp Client</li> <li>• VMware ThinApp Packager</li> <li>• VMware Workstation</li> <li>• VMware vCenter Server for Desktop</li> <li>• VMware vSphere Enterprise Plus for Desktop</li> </ul>
<b>Reporting</b>	<p>Service Providers must manually report Horizon Apps Standard usage each month in the VMware Cloud Provider Program Business Portal. Information on the total number of concurrent connections is available through the Horizon Administrator Management Web UI (under View Configuration &gt; Product Licensing and Usage) as shown above. To report the Total Concurrent Connections for a given month, Service Providers shall use the Highest Count and reset the count at the end of each month. Alternatively, Service Providers can query the Horizon View API and obtain the same data using the ConnectionServerHealth service. The sample PowerCLI commands to query the View Connection Server are as follows:</p> <ol style="list-style-type: none"> <li>1. Open PowerCLI and run the following: Import-Module VMware.VimAutomation.HorizonView</li> <li>2. Establish Connection to Horizon (Connect-HVServer): Connect-HVServer -server &lt;connection-server-fqdn&gt; -User &lt;username&gt; -Password &lt;password&gt; -Domain &lt;domain&gt;</li> <li>3. Query Horizon for the connection statistics \$global:DefaultHVServers.ExtensionData.ConnectionServerHealth.ConnectionServerHealth_List().ConnectionData</li> </ol> <p>It is the Service Provider's responsibility to track and report the maximum concurrent connections accurately each month. VMware ThinApp Packager and VMware Workstation are for administrator use only.</p>
<b>Support</b>	Production Level Support
<b>More Information</b>	<a href="https://www.vmware.com/products/horizon-apps.html">https://www.vmware.com/products/horizon-apps.html</a>

## VMware Horizon Apps Advanced

<b>Description</b>	VMware Horizon Apps Advanced includes everything in Horizon Apps Standard and further raises the bar with just-in-time app delivery powered by VMware's Instant Clone technology and complete application lifecycle management powered by VMware App Volumes. It brings speed, scale, savings, and simplicity to app delivery, while enabling access to apps on any device, anywhere.
<b>Point Value / Charged Per</b>	18 points per concurrent connection per month
<b>Components</b>	<ul style="list-style-type: none"> <li>• VMware Horizon Apps Advanced (includes RDS Hosted Applications, Identity Manager Standard Edition, and Instant Clones but not Linked Clones)</li> <li>• VMware App Volumes Enterprise (product) and User Environment Manager</li> <li>• VMware ThinApp Client</li> <li>• VMware ThinApp Packager</li> <li>• VMware Workstation</li> <li>• VMware vCenter Server for Desktop</li> <li>• VMware vSphere Enterprise Plus for Desktop</li> </ul>
<b>Reporting</b>	<p>Service Providers must manually report Horizon Apps Standard usage each month in the VMware Cloud Provider Program Business Portal. Information on the total number of concurrent connections is available through the Horizon Administrator Management Web UI (under View Configuration &gt; Product Licensing and Usage) as shown above. To report the Total Concurrent Connections for a given month, Service Providers shall use the Highest Count and reset the count at the end of each month. Alternatively, Service Providers can query the Horizon View API<sup>9</sup> and obtain the same data using the ConnectionServerHealth service. The sample PowerCLI commands to query the View Connection Server are as follows:</p> <ol style="list-style-type: none"> <li>1. Open PowerCLI and run the following: Import-Module VMware.VimAutomation.HorizonView</li> <li>2. Establish Connection to Horizon (Connect-HVServer): Connect-HVServer -server &lt;connection-server-fqdn&gt; -User &lt;username&gt; -Password &lt;password&gt; -Domain &lt;domain&gt;</li> <li>3. Query Horizon for the connection statistics \$global:DefaultHVServers.ExtensionData.ConnectionServerHealth.ConnectionServerHealth_List().ConnectionData</li> </ol> <p>It is the Service Provider's responsibility to track and report the maximum concurrent connections accurately each month. VMware ThinApp Packager and VMware Workstation are for administrator use only.</p>
<b>Support</b>	Production Level Support
<b>More Information</b>	<a href="https://www.vmware.com/products/horizon-apps.html">https://www.vmware.com/products/horizon-apps.html</a>

<sup>9</sup> The API module for Horizon requires PowerCLI 6.5 R1 and it is compatible with vSphere 5.5 and higher, and Horizon 7.0.2 and higher. For more information on Horizon View API and PowerCLI, refer to VMware EUC blog at <https://blogs.vmware.com/euc/2017/01/vmware-horizon-7-powercli-6-5.html>

## VMware Mirage

<b>Description</b>	VMware Mirage hosted image management solution eliminates the burden for customers of running and managing their desktops in-house. Service Providers can use Mirage to provide their customers with access (through a secure Internet connection) to a fully customizable desktop and laptop from any location, or on any compatible device, with the same user experience as on traditional PCs.
<b>Point Value / Charged Per</b>	7 points per named user per month
<b>Components</b>	VMware Mirage Bundle (Desktop Recovery + Repair and Image Management)
<b>Reporting</b>	Service Providers must manually report Mirage usage each month in the VMware Cloud Provider Program Business Portal. There is no automated report that keeps track of number of named users at this time, so it is the Service Provider's responsibility to track and report this information accurately each month. For every user reported, the Service Provider will be billed an incremental 7 points.
<b>Support</b>	Production Level Support
<b>More Information</b>	<a href="https://www.vmware.com/products/mirage.html">https://www.vmware.com/products/mirage.html</a>

## VMware ThinApp Client

<b>Description</b>	With ThinApp Client, an entire application and its settings can be packaged into a single executable that Service Providers can deploy to a range of Windows operating environments on either a physical desktop or a virtual machine. The applications are isolated from each other and the Operating System to ensure there are no application-to-application conflicts or application-to-operating system conflicts. This solution fits into any environment and allows Service Providers to help customers run legacy and new applications side by side. For example, older applications on Windows XP can be packaged and deployed by the Service Provider on Windows 7.
<b>Point Value / Charged Per</b>	2 points per ThinApp Client per month
<b>Components</b>	VMware ThinApp Client
<b>Reporting</b>	The Service Provider must manually report ThinApp Client usage each month in the VMware Cloud Provider Program Business Portal. The maximum number of clients used in the month must be included in the report.
<b>Support</b>	Production Level Support
<b>More Information</b>	<a href="https://www.vmware.com/products/thinapp.html">https://www.vmware.com/products/thinapp.html</a> ThinApp Client does not include the ThinApp Packager or Workstation. Service Providers will need to install and report usage for at least one seat of VMware Horizon View Standard Edition or VMware Horizon DaaS Bundle(s) in order to use ThinApp Client licenses. All the limitations of Horizon View Standard Edition or VMware Horizon DaaS Bundle(s) listed in the VMware Cloud Provider Program Product Usage Guide shall apply to that installation.

## VMware ThinApp Packager

<b>Description</b>	VMware ThinApp Packager is a tool for the administrator to help package applications into ThinApp executables.
<b>Point Value / Charged Per</b>	1 point per ThinApp Packager per month
<b>Components</b>	VMware ThinApp Packager
<b>Reporting</b>	The Service Provider must manually report ThinApp Packager usage each month in the VMware Cloud Provider Program Business Portal. The maximum number of Packagers used in the month must be included in the report.
<b>Support</b>	Production Level Support
<b>More Information</b>	<a href="https://www.vmware.com/products/thinapp.htm">https://www.vmware.com/products/thinapp.htm</a> ThinApp Packager is for administrator use only and does not include the ThinApp Client or Workstation. Service Providers will need to install and report usage for at least one seat of VMware Horizon View Standard Edition or VMware Horizon DaaS Bundle(s) in order to use ThinApp Packager licenses. All the limitations of Horizon View Standard Edition or VMware Horizon DaaS Bundle(s) listed in the VMware Cloud Provider Program Product Usage Guide shall apply to that installation.

## VMware User Environment Manager

<b>Description</b>	VMware User Environment Manager offers personalization and dynamic policy configuration across any virtual, physical and cloud-based environment. It simplifies end-user profile management by providing organizations with a single and scalable solution that leverages existing infrastructure. Service Providers can simply map infrastructure (including networks and printer mappings) and dynamically set policies for end users to securely support more use cases. With this solution, end users can also enjoy quick access to their Windows workspace and applications, with a personalized and consistent experience across devices and locations. The net effect – organizations leveraging User Environment Manager can increase workplace productivity while driving down the cost of acquisition and day-to-day desktop support and operations.
<b>Point Value / Charged Per</b>	2 points per named user per month
<b>Components</b>	VMware User Environment Manager
<b>Reporting</b>	Service Providers must manually report User Environment Manager usage each month in the VMware Cloud Provider Program Business Portal. There is no automated report that keeps track of the maximum named users at this time, so it is the Service Provider's responsibility to track and report this information accurately each month.
<b>Support</b>	Production Level Support
<b>More Information</b>	<a href="https://www.vmware.com/products/user-environment-manager.html">https://www.vmware.com/products/user-environment-manager.html</a>



## VMware vSAN for Desktop

VMware vSAN for Desktop is the software-defined storage platform that powers VMware Hyper-converged Software solutions, and delivers one of the industry’s best storage value with simple management, high performance, low cost and a robust roadmap intended to support any app, at any scale.

VMware vSAN for Desktop is available to VMware Cloud Provider Program Service Providers in two editions, and an add-on:

- VMware vSAN Standard for Desktop
- VMware vSAN Advanced for Desktop
- VMware vSAN Enterprise Add-on for Desktop

## VMware vSAN Standard for Desktop

<b>Description</b>	VMware vSAN Standard for Desktop supports both All-Flash and a hybrid SSD/HDD configuration. vSAN Standard for Desktop is an a-la-carte option that can be used with other End User Computing products in the VMware Cloud Provider Program.
<b>Point Value / Charged Per</b>	2 points per concurrent connection per month
<b>Components</b>	VMware vSAN Standard for Desktop
<b>Reporting</b>	Service Providers must manually report vSAN Standard for Desktop usage each month in the VMware Cloud Provider Program Business Portal. Information on the number of concurrent connections is available through the vCenter Server virtual machine count. There is no automated report that keeps track of the maximum concurrent connections at this time, so it is the Service Provider’s responsibility to track and report this information accurately each month. As vSAN Standard for Desktop does not include vCenter Server for Desktop or vSphere for Desktop licensing; all use of those products must be reported separately, in addition to the usage of the vSAN Standard for Desktop product.
<b>Support</b>	Production Level Support
<b>More Information</b>	A hardware independent solution, vSAN Standard for Desktop can be deployed on a wide range of servers. Service Providers have two options for deploying vSAN Standard for Desktop – a) vSAN Ready Nodes (pre-validated configurations of servers) and b) a component-based hardware compatibility list that enables Service Providers to pick and choose the components they prefer. For the latest information on vSAN Ready Nodes and supported hardware components (I/O controllers, HDDs and SSDs), refer to the VMware Compatibility Guide for vSAN at: <a href="http://www.vmware.com/resources/compatibility/search.php?deviceCategory=vSAN">http://www.vmware.com/resources/compatibility/search.php?deviceCategory=vSAN</a> .



## VMware vSAN Advanced for Desktop

<b>Description</b>	VMware vSAN Advanced for Desktop supports all-flash configuration and data efficiency features such as deduplication, compression and erasure coding, in addition to all functionalities of vSAN Standard for Desktop. vSAN Advanced for Desktop enables a two-tier all-flash architecture in which flash devices are intelligently used for both caching and data persistence to deliver high, predictable performance and sub-millisecond response times, making it ideal for tier-1 or business-critical workloads. vSAN Advanced for Desktop is an a-la-carte option that can be used with other End User Computing products in the VMware Cloud Provider Program.
<b>Point Value / Charged Per</b>	4 points per concurrent connection per month
<b>Components</b>	VMware vSAN Advanced for Desktop
<b>Reporting</b>	Service Providers must manually report vSAN Advanced for Desktop usage each month in the VMware Cloud Provider Program Business Portal. Information on the number of concurrent connections is available through the vCenter Server virtual machine count. There is no automated report that keeps track of the maximum concurrent connections at this time, so it is the Service Provider's responsibility to track and report this information accurately each month. As vSAN Advanced for Desktop does not include vCenter Server for Desktop or vSphere for Desktop licensing; all use of those products must be reported separately, in addition to the usage of the vSAN Advanced for Desktop product.
<b>Support</b>	Production Level Support
<b>More Information</b>	A hardware independent solution, vSAN Advanced for Desktop can be deployed on a wide range of servers. Service Providers have two options for deploying vSAN for Desktop – a) vSAN Ready Nodes (pre-validated configurations of servers) and b) a component-based hardware compatibility list that enables Service Providers to pick and choose the components they prefer. For the latest information on vSAN Ready Nodes and supported hardware components (I/O controllers, HDDs and SSDs), refer to the VMware Compatibility Guide for vSAN at: <a href="http://www.vmware.com/resources/compatibility/search.php?deviceCategory=vSAN">http://www.vmware.com/resources/compatibility/search.php?deviceCategory=vSAN</a>

VMware vSAN Enterprise Add-on for Desktop

<b>Description</b>	VMware vSAN Enterprise Add-on for Desktop offers Quality of Service and Stretched Cluster features on top of vSAN Standard for Desktop and vSAN Advanced for Desktop at incremental point value. It requires VMware Cloud Provider Program partners to install and utilize vSAN Standard for Desktop or vSAN Advanced for Desktop as the basis for vSAN Enterprise Add-on for Desktop. The Quality of Service control allows Service Providers to set up IOPS limit per VM to ensure mission-critical applications receive the necessary service level agreements. The Stretched Cluster allows Service Providers to create vSAN cluster between two geographically separate sites, synchronously replicating data between sites. It enables Service Providers to offer enterprise-level availability where an entire site failure can be tolerated, with zero Recovery Point Objective (RPO) and 99.999% uptime. vSAN Enterprise Add-on for Desktop is an a-la-carte option that can be used with other End User Computing products in the VMware Cloud Provider Program.
<b>Point Value / Charged Per</b>	1 point per concurrent connection per month
<b>Components</b>	VMware vSAN Enterprise Add-on for Desktop
<b>Reporting</b>	Service Providers must manually report vSAN Enterprise Add-on for Desktop usage on top of vSAN Standard for Desktop or vSAN Advanced for Desktop each month in the VMware Cloud Provider Program Business Portal. The manually reported concurrent connections of vSAN Enterprise Add-on for Desktop shall match the concurrent connections of vSAN Standard for Desktop or vSAN Advanced for Desktop. Information on the number of concurrent connections is available through the vCenter Server virtual machine count. There is no automated report that keeps track of the maximum concurrent connections at this time, so it is the Service Provider's responsibility to track and report this information accurately each month. As vSAN Enterprise Add-on for Desktop does not include vCenter Server, vSphere, vSAN Standard for Desktop or vSAN Advanced for Desktop licensing; all use of those products must be reported separately, in addition to the usage of the vSAN Enterprise Add-on for Desktop product.
<b>Support</b>	Production Level Support
<b>More Information</b>	A hardware independent solution, vSAN Enterprise Add-on can be deployed on a wide range of servers. Service Providers have two options for deploying vSAN Enterprise Add-on – a) vSAN Ready Nodes (pre-validated configurations of servers) and b) a component-based hardware compatibility list that enables Service Providers to pick and choose the components they prefer. For the latest information on vSAN Ready Nodes and supported hardware components (I/O controllers, HDDs and SSDs), refer to the VMware Compatibility Guide for vSAN at: <a href="http://www.vmware.com/resources/compatibility/search.php?deviceCategory=vSAN">http://www.vmware.com/resources/compatibility/search.php?deviceCategory=vSAN</a> .

## VMware NSX for Desktop

VMware NSX is the network virtualization platform for the Software-Defined Data Center, delivering the operational model of a virtual machine for entire networks.

VMware NSX for Desktop is available to VMware Cloud Provider Program Service Providers in two editions:

- VMware NSX Advanced for Desktop
- VMware NSX Enterprise for Desktop

## VMware NSX Advanced for Desktop

<b>Description</b>	VMware NSX Advanced for Desktops is the network virtualization platform for Horizon, XenApp, and XenDesktop environments
<b>Point Value / Charged Per</b>	5 points per concurrent connection per month
<b>Components</b>	VMware NSX Advanced for Desktop
<b>Reporting</b>	Service Providers must manually report NSX Advanced for Desktop usage each month in the VMware Cloud Provider Program Business Portal. Information on the number of concurrent connections is available through the vCenter Server virtual machine count. There is no automated report that keeps track of the maximum concurrent connections at this time, so it is the Service Provider's responsibility to track and report this information accurately each month. As NSX Advanced for Desktop does not include vCenter Server for Desktop or vSphere for Desktop licensing; all use of those products must be reported separately, in addition to the usage of the NSX Advanced for Desktop product.
<b>Support</b>	Production Level Support
<b>More Information</b>	<a href="https://www.vmware.com/products/horizon/horizon-nsx.html">https://www.vmware.com/products/horizon/horizon-nsx.html</a>



## VMware NSX Enterprise for Desktop

<b>Description</b>	<p>VMware NSX Advanced for Desktops is the network virtualization platform for Horizon, XenApp, and XenDesktop environments across multiple data centers. Additionally, it includes:</p> <ul style="list-style-type: none"> <li>• Multi-site NSX optimizations</li> <li>• VPN (IPsec and SSL) Remote Gateway</li> <li>• Integration with hardware VTEPs</li> </ul>
<b>Point Value / Charged Per</b>	8 points per concurrent connection per month
<b>Components</b>	VMware NSX Enterprise for Desktop
<b>Reporting</b>	<p>Service Providers must manually report NSX Enterprise for Desktop usage each month in the VMware Cloud Provider Program Business Portal. Information on the number of concurrent connections is available through the vCenter Server virtual machine count. There is no automated report that keeps track of the maximum concurrent connections currently, so it is the Service Provider's responsibility to track and report this information accurately each month. As NSX Enterprise for Desktop does not include vCenter Server for Desktop or vSphere for Desktop licensing; all use of those products must be reported separately, in addition to the usage of the NSX Enterprise for Desktop product.</p>
<b>Support</b>	Production Level Support
<b>More Information</b>	<a href="https://www.vmware.com/products/horizon/horizon-nsx.html">https://www.vmware.com/products/horizon/horizon-nsx.html</a>

# THIRD PARTY SOFTWARE PRODUCTS

## Third Party Products

### Third Party Product Terms

VMware may make products licensed by third parties (“Third Party Products”) available through the VMware Cloud Provider Program. The VMware end user license agreement does not apply to Third Party Products. VMware does not provide support for Third Party Products.

Third Party Products are provided by VMware “AS IS” but may include warranty, support or indemnification from the Third Party Product Provider. VMware hereby disclaims any warranty, support or indemnification obligations for Third Party Products. Use of a Third Party Product should be reported as if it were a VMware product under the VMware Cloud Provider Program.

By ordering Third Party Products from VMware, Service Providers agree that VMware may share their information (including reported usage) with the Third Party Product Provider for purposes of providing the Third Party Product through VMware Cloud Provider Program.

## OnApp™ for VMware Cloud Provider Program

<b>Description</b>	OnApp™ for VMware Cloud Provider Program is a Third Party Product made available through the VMware Cloud Provider Program as a “restricted” offer. OnApp™ for VMware Cloud Provider Program provides an intuitive, robust and feature-rich way to sell cloud services for VMware Cloud Provider Program products. OnApp™ helps VMware Cloud Provider Program partners transform the functionality, usability, and automation, self-service and billing capabilities of their VMware cloud environments and rapidly accelerate business growth with hybrid cloud services, delivered and managed through a unified white-label portal. For more information, visit <a href="http://onapp.com/vmware">http://onapp.com/vmware</a> . OnApp™ is a trademark of OnApp™ Limited. The OnApp™ license terms are available at: <a href="https://onapp.com/legal/onapp-master-licence-agreement">https://onapp.com/legal/onapp-master-licence-agreement</a> .
<b>Point Value / Charged Per</b>	1.5 points per 1 vGB Reserved RAM (based on average monthly usage) (GB = 1024 MB), 1000 point minimum per month commitment for usage of the OnApp™ product is required.
<b>Components</b>	OnApp™ for VMWare Cloud Provider Program
<b>Reporting</b>	VMware Cloud Provider Program partners need to manually report monthly usage in the VMware Cloud Provider Program Business Portal (data available through the OnApp™ dashboard)
<b>Support</b>	For information regarding OnApp™ product support see: <a href="https://onapp.com/customer-support">https://onapp.com/customer-support</a> Contact Support through Help Center, via e-mail <a href="mailto:support@onapp.com">support@onapp.com</a> or by phone: 1-888-876-8666. Upon contacting support, customers will be provided with support entitlements and credentials for a ticketing system.
<b>More Information</b>	Professional Services will be contracted directly with and billed by OnApp™. Highly Available OnApp™ Control Panel installation is available at an extra cost, directly contracted with and billed by OnApp™.

## Blue Medora True Visibility for vRealize Operations

Blue Medora True Visibility is a Third Party Product that provides additional value to vRealize Operations by providing Service Provider partners with advanced analysis, capacity planning, monitoring, reporting, and alerting for the entire infrastructure. True Visibility for vRealize Operations provides comprehensive storage, compute, network, converged infrastructure, container, database, and application monitoring within vRealize Operations, enabling staff to monitor and troubleshoot their entire infrastructure within one tool. Actual capabilities of vRealize Operations Manager vary by edition. 100 point minimum monthly commitment for usage of Blue Medora products is required.

Blue Medora True Visibility for vRealize Operations is available to VMware Cloud Provider Program Service Providers in four editions:

- Blue Medora True Visibility Standard
- Blue Medora True Visibility Advanced
- Blue Medora True Visibility Enterprise
- Blue Medora Manager of Managers

For a feature comparison visit: <https://bluemedora.com/platforms/true-visibility-suite-for-vmware/vrealize-operations/>



Blue Medora True Visibility for vRealize Operations Standard

<b>Description</b>	True Visibility Suite Standard Edition includes access to compute layer integrations such as Cisco UCS, as well as access to Dell EMC storage monitoring for VNX, VMAX, and XtremeIO.
<b>Point Value / Charged Per</b>	1.25 points per VM or OSI per month
<b>Components</b>	Blue Medora True Visibility for vRealize Operations Standard
<b>Reporting</b>	Monthly usage for Blue Medora should align to the corresponding monthly usage reported for vRealize Operations and should be reported in the VMware Cloud Provider Program Business Portal each month. Follow the usage reporting instructions for vRealize Operations included in <a href="#">Appendix B</a> for capturing standalone reporting for vRealize Operations. Reporting for Blue Medora is manual and is not captured by the Usage Meter. 100 point minimum monthly commitment for usage of Blue Medora products is required.
<b>Support</b>	Engineered by Blue Medora and validated by VMware, the True Visibility Suite includes an extensive knowledge portal and includes 24/7/365 individualized technical support through Blue Medora. Support can be reached via phone at +1.616.965.3175 or at <a href="mailto:support.bluededora.com">support.bluededora.com</a>
<b>More Information</b>	<p>Limitations</p> <p>Professional Services will be contracted directly with and billed by Blue Medora.</p> <p>Service Providers must have vRealize Operations in order to use True Visibility Suite. True Visibility Suite edition may not exceed the Service Provider's vRealize Operations edition. Example: A Service Provider with vRealize Operations Standard may not use True Visibility Advanced or Enterprise.</p> <p>Additional Resources</p> <ul style="list-style-type: none"> <li>• To contact Blue Medora for a live demo please submit your request via e-mail at <a href="mailto:sales@bluededora.com">sales@bluededora.com</a></li> <li>• Installation &amp; Support will be provided by Blue Medora. All Blue Medora management packs within the True Visibility Suites are Service Provider installable. However, if a Service Provider is interested in customization or assistance with an advanced installation, please contact Blue Medora at <a href="mailto:sales@bluededora.com">sales@bluededora.com</a> to receive a custom Professional Services proposal.</li> </ul>

Blue Medora True Visibility for vRealize Operations Advanced

<b>Description</b>	True Visibility Suite Advanced Edition includes everything from the Standard Edition, plus additional storage, network, converged, Hyper-converged, virtualization, and container integrations such as NetApp FAS, Cisco Nexus, F5 BIG-IP, FlexPod, Pivotal, and more
<b>Point Value / Charged Per</b>	3 points per VM or OSI per month
<b>Components</b>	Blue Medora True Visibility for vRealize Operations Advanced
<b>Reporting</b>	Monthly usage for Blue Medora should align to the corresponding monthly usage reported for vRealize Operations and should be reported in the VMware Cloud Provider Program Business Portal each month. Follow the usage reporting instructions for vRealize Operations included in <a href="#">Appendix B</a> for capturing standalone reporting for vRealize Operations. Reporting for Blue Medora is manual and is not captured by the Usage Meter. 100 point minimum monthly commitment for usage of Blue Medora products is required.
<b>Support</b>	Engineered by Blue Medora and validated by VMware, the True Visibility Suite includes an extensive knowledge portal and includes 24/7/365 individualized technical support through Blue Medora. Support can be reached via phone at +1.616.965.3175 or at support.bluededora.com
<b>More Information</b>	<p>Limitations</p> <p>Professional Services will be contracted directly with and billed by Blue Medora.</p> <p>Service Providers must have vRealize Operations in order to use True Visibility Suite. True Visibility Suite edition may not exceed the Service Provider's vRealize Operations edition. Example: A Service Provider with vRealize Operations Standard may not use True Visibility Advanced or Enterprise.</p> <p>Additional Resources</p> <ul style="list-style-type: none"> <li>To contact Blue Medora for a live demo please submit your request via e-mail at <a href="mailto:sales@bluededora.com">sales@bluededora.com</a></li> <li>Installation &amp; Support will be provided by Blue Medora. All Blue Medora management packs within the True Visibility Suites are Service Provider installable. However, if a Service Provider is interested in customization or assistance with an advanced installation, please contact Blue Medora at <a href="mailto:sales@bluededora.com">sales@bluededora.com</a> to receive a custom Professional Services proposal.</li> </ul>

Blue Medora True Visibility for vRealize Operations Enterprise

<b>Description</b>	True Visibility Suite Enterprise Edition includes everything from Standard and Advanced Edition, plus database, big data, platform, and application integrations including Oracle Database, Microsoft SQL, Amazon, SAP, and more.
<b>Point Value / Charged Per</b>	6 points per VM or OSI per month
<b>Components</b>	Blue Medora True Visibility for vRealize Operations Enterprise
<b>Reporting</b>	Monthly usage for Blue Medora should align to the corresponding monthly usage reported for vRealize Operations and should be reported in the VMware Cloud Provider Program Business Portal each month. Follow the usage reporting instructions for vRealize Operations included in <a href="#">Appendix B</a> for capturing standalone reporting for vRealize Operations. Reporting for Blue Medora is manual and is not captured by the Usage Meter. 100 point minimum monthly commitment for usage of Blue Medora products is required.
<b>Support</b>	Engineered by Blue Medora and validated by VMware, the True Visibility Suite includes an extensive knowledge portal and includes 24/7/365 individualized technical support through Blue Medora. Support can be reached via phone at +1.616.965.3175 or at support.bluededora.com
<b>More Information</b>	<p>Limitations</p> <p>Professional Services will be contracted directly with and billed by Blue Medora.</p> <p>Service Providers must have vRealize Operations in order to use True Visibility Suite. True Visibility Suite edition may not exceed the Service Provider's vRealize Operations edition. Example: A Service Provider with vRealize Operations Standard may not use True Visibility Advanced or Enterprise.</p> <p>Additional Resources</p> <ul style="list-style-type: none"> <li>To contact Blue Medora for a live demo please submit your request via e-mail at <a href="mailto:sales@bluededora.com">sales@bluededora.com</a></li> <li>Installation &amp; Support will be provided by Blue Medora. All Blue Medora management packs within the True Visibility Suites are Service Provider installable. However, if a Service Provider is interested in customization or assistance with an advanced installation, please contact Blue Medora at <a href="mailto:sales@bluededora.com">sales@bluededora.com</a> to receive a custom Professional Services proposal.</li> </ul>

Blue Medora True Visibility for vRealize Operations Manager of Managers

<b>Description</b>	<p>The True Visibility connector’s management pack suite compliments VMware’s vRealize Operations offerings with a variety of management packs for pulling management data in from domain specific management platforms, and analyzing for deeper usage, capacity, trend and health data. Please note that the Manager of Manager Connectors pack is only available to add on to the True Visibility Suite – Advanced.</p> <p>100 point minimum monthly commitment for usage of Blue Medora products is required.</p> <p>*OSI stands for OS Instance. This measure is used for non-VMware environments, including physical.</p>
<b>Point Value / Charged Per</b>	1.25 points per VM or OSI per month
<b>Components</b>	Blue Medora True Visibility for vRealize Operations Enterprise
<b>Reporting</b>	<p>Monthly usage for Blue Medora should align to the corresponding monthly usage reported for vRealize Operations and should be reported in the VMware Cloud Provider Program Business Portal each month. Follow the usage reporting instructions for vRealize Operations included in <a href="#">Appendix B</a> for capturing standalone reporting for vRealize Operations. Reporting for Blue Medora is manual and is not captured by the Usage Meter. 100 point minimum monthly commitment for usage of Blue Medora products is required.</p>
<b>Support</b>	<p>Engineered by Blue Medora and validated by VMware, the True Visibility Suite includes an extensive knowledge portal and includes 24/7/365 individualized technical support through Blue Medora. Support can be reached via phone at +1.616.965.3175 or at <a href="mailto:support.bluededora.com">support.bluededora.com</a></p>
<b>More Information</b>	<p>Limitations</p> <p>Professional Services will be contracted directly with and billed by Blue Medora.</p> <p>Service Providers must have vRealize Operations in order to use True Visibility Suite. True Visibility Suite edition may not exceed the Service Provider’s vRealize Operations edition. Example: A Service Provider with vRealize Operations Standard may not use True Visibility Advanced or Enterprise.</p> <p>Additional Resources</p> <ul style="list-style-type: none"> <li>• To contact Blue Medora for a live demo please submit your request via e-mail at <a href="mailto:sales@bluededora.com">sales@bluededora.com</a></li> <li>• Installation &amp; Support will be provided by Blue Medora. All Blue Medora management packs within the True Visibility Suites are Service Provider installable. However, if a Service Provider is interested in customization or assistance with an advanced installation, please contact Blue Medora at <a href="mailto:sales@bluededora.com">sales@bluededora.com</a> to receive a custom Professional Services proposal.</li> </ul>

## Appendix A. Adjusting Reports with Manually Collected Product Usage Data

Depending on the products used by Service Providers, monthly reports may need to be manually adjusted to accurately report all required data.

For example, environments that use Usage Meter 3.3.3 will not accurately report vRealize Operations or NSX product usage. When reporting usage as bundles, the VMs running vRealize Operations and NSX must have their usage reported in the correct bundle containing the products. When reporting product usage as standalone, a new line item must be added to the report to reflect the usage.

This appendix explains how to adjust reports to place product usage into the correct bundle or standalone line items.

Two different approaches are used to adjust a monthly report with manually collected data.

If the product usage will be reported standalone, then a simple count of VMs running the products is required. The billed GB usage is removed from the bundle reported by vCloud Usage Meter and added to the report as a new standalone line item.

However, if the product usage will be reported as part of a bundle, then a more complex process is followed. The total Memory Allocation for all VMs running the product must be subtracted from the 'Reported Bundle' and added to a bundle that includes the product.

To reduce reporting complexity, rather than retrieving the actual vRAM reserved by each VM running a product, an Average Billed vRAM value is used as the memory billed for each VM.

## Standalone Reporting

### Reporting product usage as standalone entries for NSX or vRealize Operations

Add new line entries to the monthly report for each standalone product reported (NSX or vRealize Operations).  
For each product:

1. Determine the count of VMs running the product (See [Appendix](#) for details)
2. Add a line item to the monthly usage report as follows:  
Product Name <IP address of instance> <Version> <VM count >

### Reporting product usage as standalone entries for Virtual SAN

Add a new line entry to the monthly report for Virtual SAN storage usage.  
For each product:

1. Determine the Virtual SAN Used storage capacity in GB (See [Appendix](#) for details)
2. Add a line item to the monthly usage report as follows:  
Product Name <Version> <GB >

### Reporting product usage as standalone entries for vCloud Availability

Add a new line entry to the monthly report for vCloud Availability usage.  
For each product:

1. Determine the vCPU and vStorage used by vCloud Availability (See [Appendix](#) for details)
2. Add an additional line item to the monthly usage report for each Organization with VMs protected by vCloud Availability in the following format:  
Organization Name, CountOfProtectedVMs, TotalStorageUsedByVMsInBytes

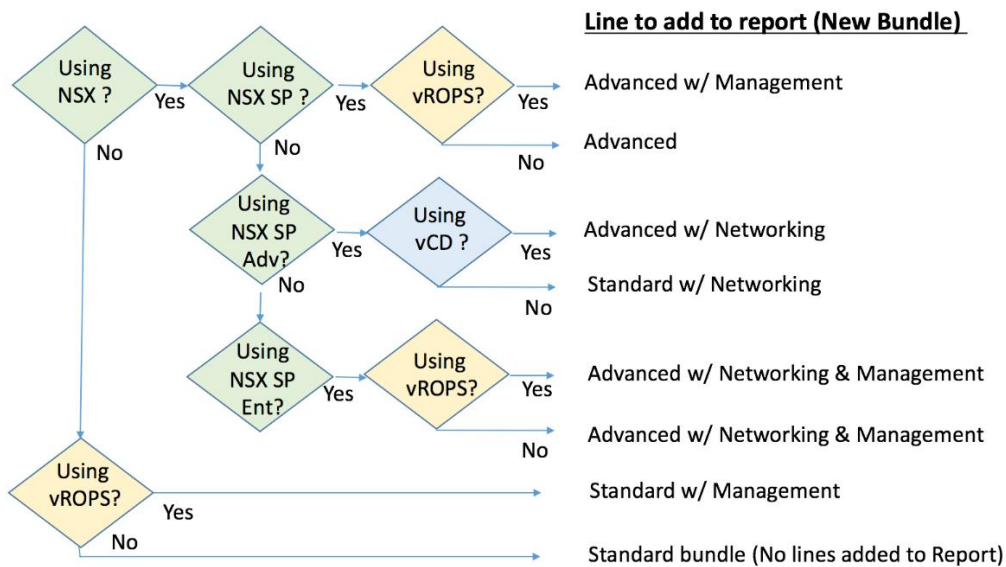
## Reporting Product Usage Using VMware Cloud Provider Program Bundles

Manual reporting on VMware Cloud Provider Program bundles is determined by the answer to three questions:

- Is NSX deployed? If so, which edition?
- Is vRealize Operations deployed?
- Is vCloud Director deployed?

Based on the answer to these questions a single line will be added to the monthly report.

The following flowchart helps determine the name of the bundle line.



### NSX Features Comparison

		vCNS Mode		
Features		NSX-SP Base	NSX-SP Advanced	NSX-SP Enterprise
Automation	Distributed switching and routing	✓	✓	✓
	NSX Edge firewall	✓	✓	✓
	NAT	✓	✓	✓
	SW L2 bridging to physical environment		✓	✓
	Dynamic routing with ECMP (Active-active)		✓	✓
	Integration with vRealize and OpenStack	✓ <sup>1</sup>	✓	✓
	NSX Edge load balancing	✓	✓	✓
	Distributed load balancing <sup>2</sup>			✓
	Integration with HW VTEPs			✓
	Security	Distributed firewalling		✓
Active Directory Integrated firewall			✓	✓
Service insertion (3 <sup>rd</sup> party integration)			✓	✓
Server activity monitoring			✓	✓
App Continuity	Cross vCenter NSX			✓
	Multi-Site NSX optimizations			✓
	VPN (IPSEC and SSL)	✓	✓	✓
	Remote Gateway			✓

vmware® Notes: 1. L2, L3 & NSX Edge Integration Only. No consumption of Security Groups 2. Tech Preview with 6.2.2

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### Adjusting vCloud Usage Meter Reports

Completing the steps in this section requires two or three values depending on whether both NSX and vRealize Operations are deployed.

- A count of VMs running vRealize Operations
- A count of VMs running NSX
- A value that represents the Avg. Billed vRAM.

Refer to [Appendix A](#) for instructions on obtaining these values before proceeding.



### Steps to adjust vCloud Usage Meter reports

1. Using the flowchart on page **Error! Bookmark not defined. Error! Reference source not found.**, select the products in use and determine the type of bundle to be added to the report.
2. Run the Monthly Usage Report.
3. Read from the report the vCloud Service Provider Bundle - Premier Edition GB value. This is **Value A**.
4. Determine **Value B** –
  - If only NSX is deployed, multiply the total count of NSX VMs by average billed vRAM to compute Value B.
  - If only vRealize Operations is deployed, multiply the total count of vRealize Operations VMs by average billed vRAM to compute Value B.
  - If both NSX and vRealize Operations are deployed, multiply the larger of the two values by average billed vRAM to compute Value B.
5. Update the report as follows:
  - a. Update: vCloud Service Provider Bundle - Premier Edition = A-B
  - b. Add: vCloud Service Provider Bundle - **Bundle Name From Flowchart** = B

### Steps to adjust vCloud Usage Meter reports for mixed editions of NSX

To report mixed editions of NSX you will need to first run your Usage Meter report. The report will indicate the bundle with the highest level of NSX used. To report multiple editions of NSX you will need to subtract usage for the lower point bundle from the bundle that is indicated on your Usage Meter report and manually report for the lower bundle. The sum of the two bundles should equal the amount of usage indicated on the UM report.

For Example: If your Usage Meter report indicates that you used 100 vRAM of the new VMware Cloud Provider Program Advanced with Networking and Management Bundle and you would like to report usage of both NSX Enterprise and NSX advanced you would need to do the following:

1. Determine the VMs that are using NSX Advanced Features and the VMs that are using the NSX Enterprise Features.
2. Deduct the Average vRAM for the VMs using NSX Advanced from the amount of vRAM indicated on the UM Report for the New Advanced with Networking and Management Bundle. For example if you are using 50GB of vRAM of NSX advanced features deduct 50GB of vRAM from the New Advanced with Networking and Management Bundle.
3. Report the deducted vRAM amount under the new VMware Cloud Provider Program Advanced with Networking Bundle and report the remainder of the vRAM under the new VMware Cloud Provider Program Advanced with Networking and Management Bundle. Note the sum of vRAM for the two bundles should equal the vRAM indicated on your UM report for the New Advanced with Networking and Management Bundle. In this example you would report 50GB of vRAM to the New Advanced with Networking Bundle and 50GB of vRAM to the New Advanced with Networking and Management Bundle.

## Appendix B. Manually collecting product usage data

The product usage data collected by vCloud Usage Meter varies based on the version of vCloud Usage Meter. Service Providers may be using a version that does not meet the total reporting requirements of all products. In such cases, Service Providers must perform manual steps to collect the additional required data and apply it as either a standalone or bundled allocation in the reports they submit.

This appendix provides information about manually collecting usage data for various products.

NOTE: vCloud Usage Meter 3.3.3 and earlier versions do not report usage for the products listed in this appendix. Service Providers using these versions must collect the data manually and apply it to their reports.

### Manually calculating Average Billed vRAM Value

Calculations to adjust monthly reports for bundles require an average vCenter vRAM value.

This section explains how to calculate the value.

1. Run the Monthly Usage Report in vCloud Usage Meter 3.3.3.
2. Note the values for the following items:
  - The **average capped billed vRAM (GB)** value for the vCloud Service Provider Bundle – Premier Edition bundle. In the example below, this value is 5GB vRAM.
  - The **Total VMs under Management** value for the vCenter Server product. In the example below, this value is 12.
3. Calculate the average billed vRAM value for vCenter Servers. You do this by dividing the average capped billed vRAM (GB) value for the vCloud Service Provider Bundle – Premier Edition bundle by the total number of VMs under Management value (for the vCenter Server product in the **Virtual Machines by Product Server** section). In the above example, you would divide 5 GB by 12. The result is .42 GB vRAM per VM.

Use this computed value as the 'average GB of vRAM per VM' in all manual reporting adjustments.

The screenshot shows the VMware vCloud Usage Meter 3.3.3 interface. The 'Reports' section is active, with 'Monthly Usage' selected for June 2016. The 'Per-VM Memory Cap (GB)' is set to 24. Below the report controls, there are two tables:

**Monthly Usage Units**

Product	Unit of Measure	Units to be Reported
Site Recovery Manager	Protected VMs	0
vCloud Integration Manager	Avg Capped Billed vRAM (GB)	0
vCloud Automation Center	Managed VMs	0
vCloud Service Provider Bundle - Standard Edition	Avg Capped Billed vRAM (GB)	0
vCloud Service Provider Bundle - Premier Edition	Avg Capped Billed vRAM (GB)	5
vCloud Service Provider Bundle - Premier Plus Edition	Avg Capped Billed vRAM (GB)	0

**Virtual Machines by Product Server**

Product	Hostname	Version	License Key	# VMs under Management
vCenter Server	192.168.1.200	6.0.0	752TP-CRH9P-281U9-092K6-8X962	12
Site Recovery Manager (VMs)				0
vCloud Director	192.168.1.210	9.0	HM4TH-A9K45-48RF3-0L0KM-C03J6	6
vCenter Operations Manager	192.168.1.12	6.0.2.000000		0
vCenter Operations Manager	192.168.1.205	6.1.0.000000		0
Total				6

## Manually collecting Usage Data for vCloud Availability

Usage Meter versions before Usage Meter 3.6 do not report usage for vCloud Availability. If you are using a previous version of Usage Meter please follow the reporting instructions below:

Service Providers using vCloud Availability are required to execute a script, once each reporting period and enter the data into the Business Portal.

A Python script is used to automate the retrieval of usage data for vCloud Availability. The script is available on github.com at <https://github.com/vmware/vcloud-availability-examples> Refer to the README file at the above link for script installation instructions.

### Script Execution

Each execution of the script returns a point-in-time listing of protected VMs' virtual storage usage by Organization.

Run the script providing the following values:

- A vCD System domain administrator username & password.
- The IP or DNS name of vCloud Director.

For Example

```
$ python gen_usage_report.py root my password 10.162.102.164
```

This returns output in the format

```
['Organization', 'TotalReplicatedVMs', 'TotalOrganizationReplicationSize']VMware
```

For example:

```
[('tenant1Org', 0, 0), ('tenant2Org', 2, 760225792)]
```

The output contains a list of Organizations, with each Organization in parenthesis.

For each Organization, three values are output:

- \* The Organization name
- \* A total count of protected VMs in the Organization
- \* The total storage used by the protected VMs in the Organization in Bytes

In the sample execution above, the first Organization name is Tenant1Org, the total count of protected VMs in Tenant1Org is 0, and the total storage used by protected VMs in Tenant1Org is 0. The second Organization is named tenant2Org, it has two replicated VMs using a total of 760225792 Bytes of storage.

## Reporting Usage

Service providers should execute the script once per reporting period, as close to the end of the billing period as possible. The script outputs data based on the current state of the system, no historical data is collected.

The output for Organizations with non-zero values are entered into the Business Portal to record standalone use of vCloud Availability.

### A Note about Migrations:

vCloud Availability may be used to perform 'VM Migrations', where replication is configured solely for the purpose of moving a tenant virtual machine to a cloud provider. In such cases, the replication is not used for Disaster Recovery protection. When migration is complete, the associated replication configuration is deleted.

Replications used for Migration with vCloud Availability can be performed at zero cost. To avoid being charged for replications associated with migrations, ensure no migrations are in progress when the `gen_usage_report` is executed.

## Manually collecting Usage Data for vRealize Operations

vRealize Operations maintains usage data in its own database.

This section explains how to create a new report in vRealize Operations and run it to retrieve the required usage data. The report provides the total number of VMs managed by vRealize Operations.

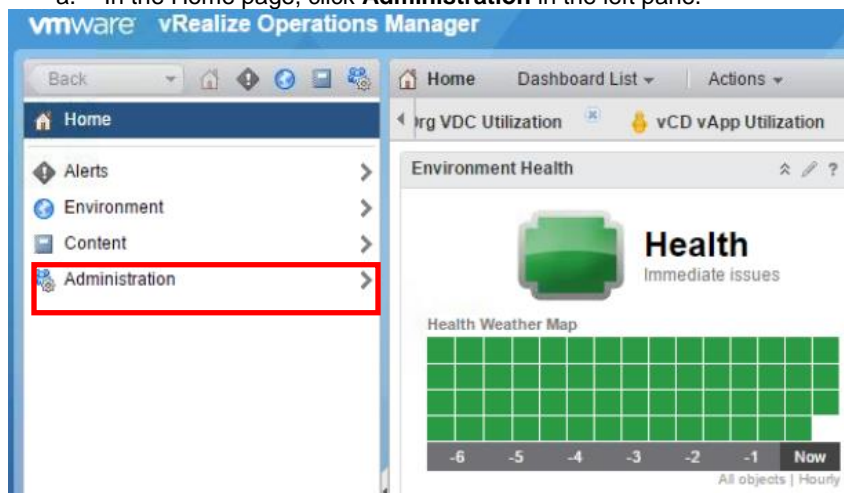
Create a report for every vCenter Server managed by vRealize Operations.

Creating the report involves the following tasks:

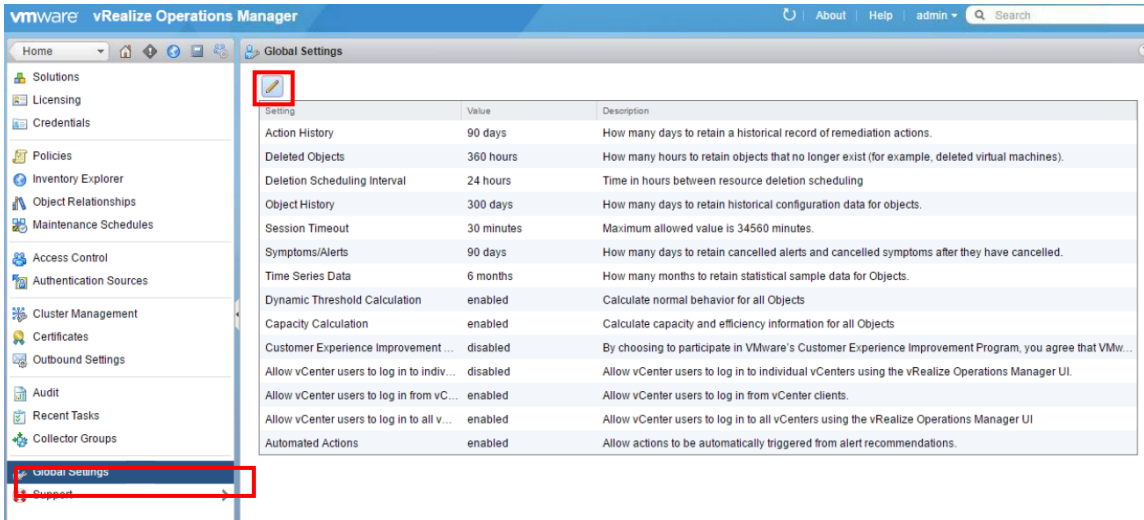
- Set the time period for which deleted object data is stored to 30 days.  
By default, vRealize Operations stores deleted object data for 15 days. Changing the value to 30 days ensures proper reporting of all virtual machines for the full 30-day reporting period.
- Create and save a new View.  
A View is similar to a report. After creating and saving a View, you can run it at any time.
- Run the View to get the total number of VMs managed by vRealize Operations.

### Creating a Report in vRealize Operations Manager

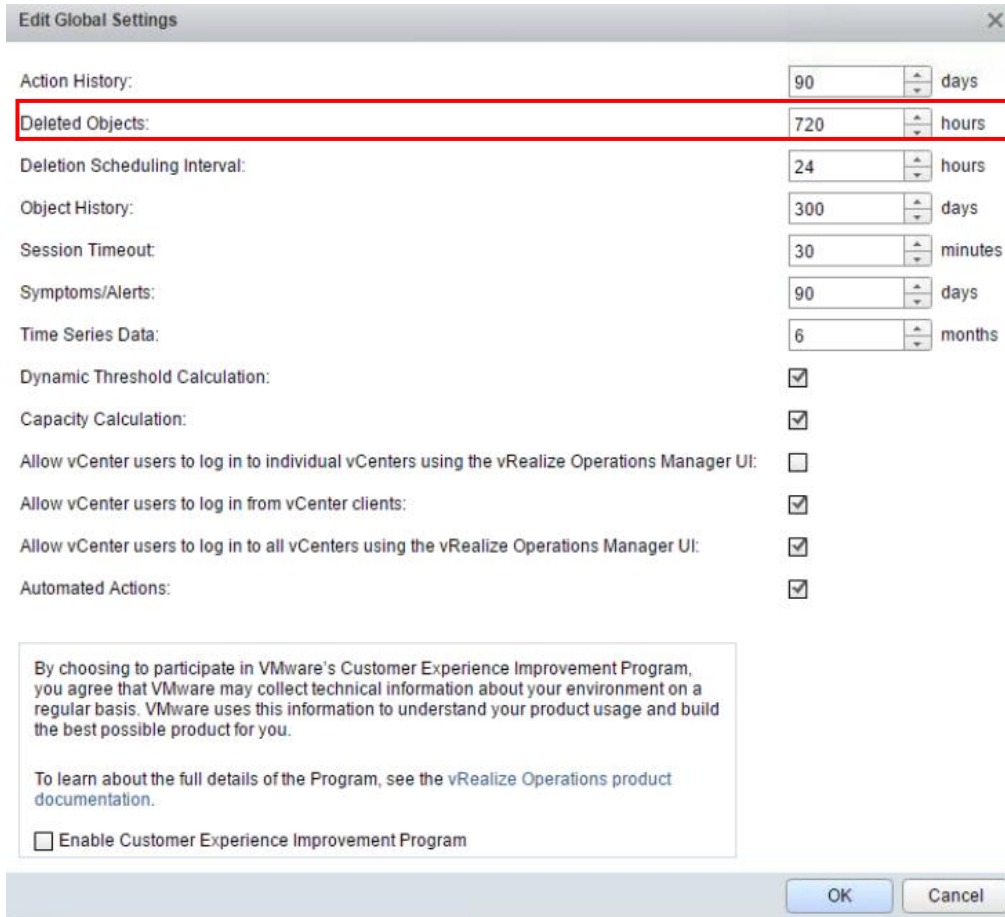
1. Log in to vRealize Operations Manager.
2. Set the time period for storing deleted object data to 30 days.
  - a. In the Home page, click **Administration** in the left pane.



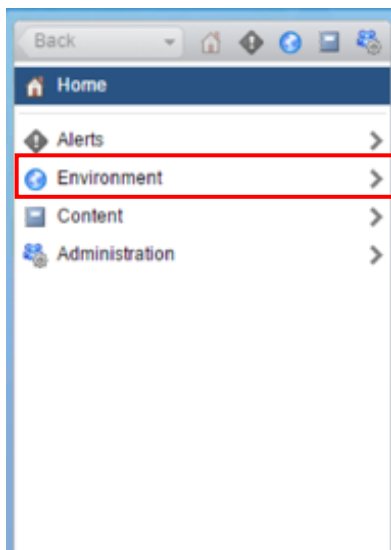
- b. In the left pane, click **Global Settings**, then click the **Edit Global Settings** icon at the top of the Global Settings page.



- c. In the Edit Global Settings page, change the value of the **Deleted Objects** field from **360** hours to **720** hours, then click **OK**.



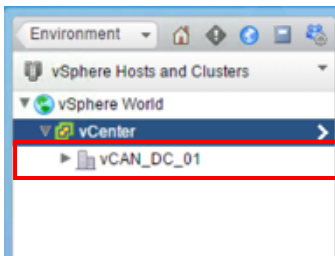
3. Create a new View to obtain the list of VMs managed by vRealize Operations.
  - a. In the left pane, click **Home** to go to the vRealize Operations Manager Home page.
  - b. In the left pane, click **Environment**.



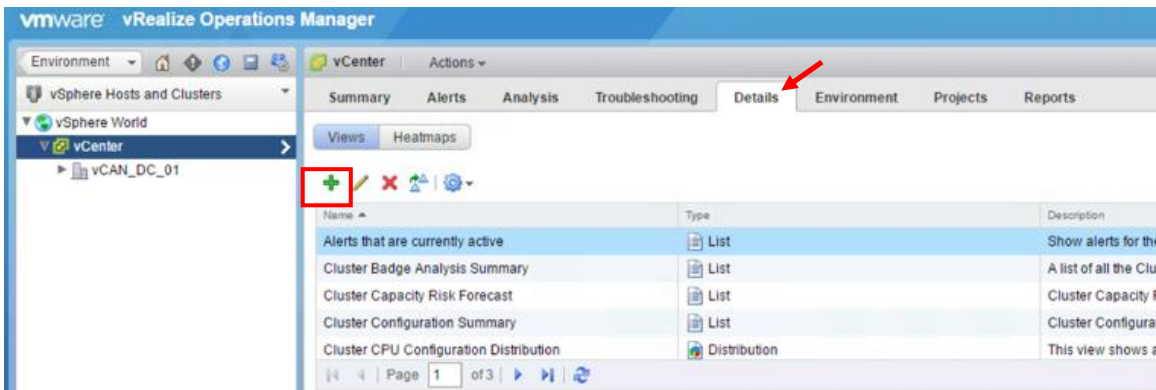
c. Click vSphere Hosts and Clusters under Inventory Trees.



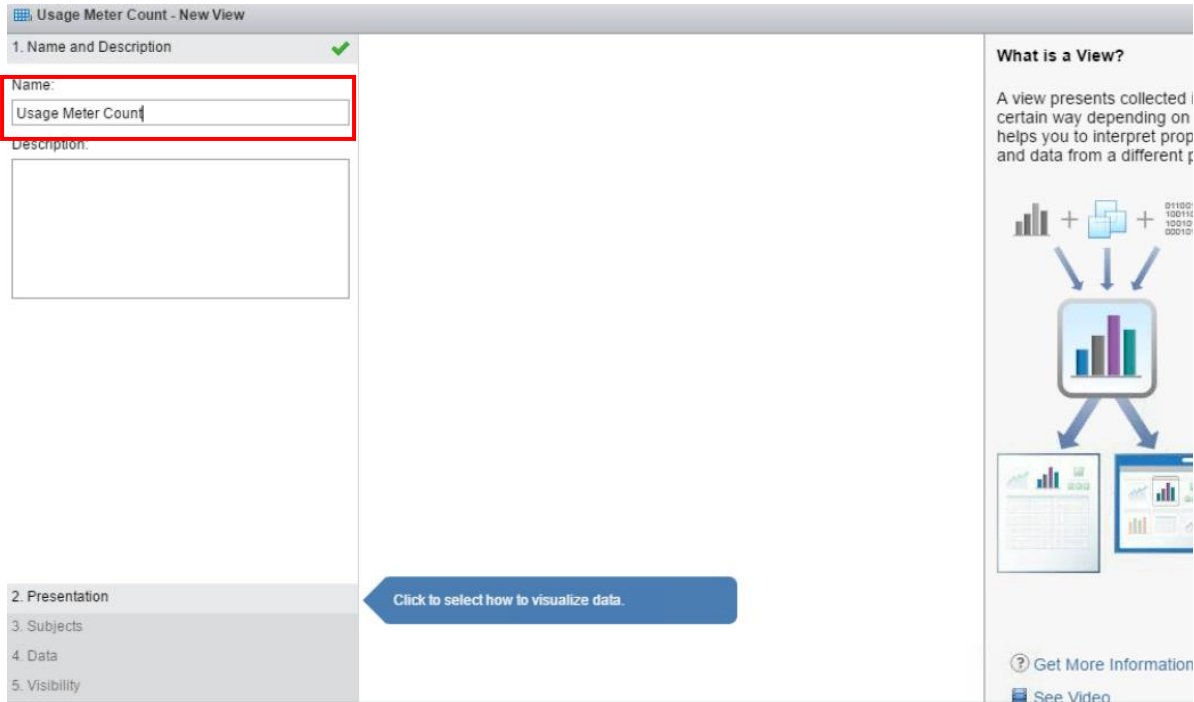
d. Expand **vSphere World** and select the vCenter Server for which you want to create the report.  
**Note:** You must create a report for every vCenter Server under vRealize Operations management.



e. Click the **Details** tab, then click the **Create View** icon at the top of the Views page.



f. In the New View page, enter a unique name for the View.



- g. Click **Presentation** at the bottom of the New View page, then click **List**.
- h. Under **Configuration**, you can modify the number of items displayed per page.



**Usage Meter Count - New View**

1. Name and Description ✓  
 2. Presentation ✓  
 List  
 Summary  
 Trend  
 Distribution  
 Text  
 Image

Preview source: Sample data Select preview source...

Column 1	Column 2	Column 3	Column 4
Object Name 1	Property Value 1	Value 1	Value 1
Object Name 2	Property Value 2	Value 2	Value 2
Object Name 3	Property Value 3	Value 3	Value 3
Object Name 4	Property Value 4	Value 4	Value 4
Object Name 5	Property Value 5	Value 5	Value 5
Object Name 6	Property Value 6	Value 6	Value 6
Object Name 7	Property Value 7	Value 7	Value 7

Page 1 of 1 | Displaying 1 - 15 of 15

**List**  
 List views provide tabular data about specific objects in the monitored environment that correspond to the selected view.

**Configuration**  
 Items per page: 50

3. Subjects  
 4. Data  
 5. Visibility ✓

Click to select the subject for which the view applies.

- i. Click **Subjects** and type **Virtual Machine** in the text field. From the drop-down list that appears, select **Virtual Machine**.

**Usage Meter Count - New View**

1. Name and Description ✓  
 2. Presentation ✓  
 3. Subjects

virtual machine

- ▼ vCloud Adapter
  - vCloud Virtual Machine
- ▼ vCenter Adapter
  - Virtual Machine
  - Virtual Machine Folder

j. Click **Data**, then click the **Metrics** drop-down list and select **Properties**.

The screenshot shows the 'Usage Meter Count - New View' interface. On the left, a tree view under '4. Data' has 'Properties' selected. The main area shows a table with the following data:

Column 1	Column 2	Column 3	Column 4
Object Name 1	Property Value 1	Value 1	Value 1
Object Name 2	Property Value 2	Value 2	Value 2
Object Name 3	Property Value 3	Value 3	Value 3
Object Name 4	Property Value 4	Value 4	Value 4
Object Name 5	Property Value 5	Value 5	Value 5
Object Name 6	Property Value 6	Value 6	Value 6
Object Name 7	Property Value 7	Value 7	Value 7

Below the table, there are tabs for 'Data', 'Time Settings', 'Group By', 'Filter', and 'Summary'. The 'Data' tab is active, showing a 'Drag the data to include in the view.' instruction and a 'Select a metric or property to configure.' button.

**Note:** In vRealize Operations 6.0, this step is different. Instead of clicking the **Metrics** drop-down list, you need to click the folder icon under the **Select data for** field. The search box appears. Then proceed to the next step.

k. In the search box next to **Properties**, type Name, then press **Enter**.

I. Expand the **Configuration** menu and drag the **Name** object into the **Data** window on the right.

The screenshot shows the 'Usage Meter Count - New View' interface. On the left, the 'Configuration' menu is expanded, and the 'Name' object is highlighted with a red box. A red arrow points from this box to the 'Data' window on the right. The 'Data' window contains a table with columns 'Column 1' through 'Column 4' and rows 'Object Name 1' through 'Object Name 7'. Below the table, the 'Data' tab is selected, and the 'Configuration|Name' object is added to the 'Data' window. A red box highlights the 'Name' object in the 'Configuration' menu. The 'Data' window also displays a 'Drag the data to include in the view.' message.

Column 1	Column 2	Column 3	Column 4
Object Name 1	Property Value 1	Value 1	Value 1
Object Name 2	Property Value 2	Value 2	Value 2
Object Name 3	Property Value 3	Value 3	Value 3
Object Name 4	Property Value 4	Value 4	Value 4
Object Name 5	Property Value 5	Value 5	Value 5
Object Name 6	Property Value 6	Value 6	Value 6
Object Name 7	Property Value 7	Value 7	Value 7

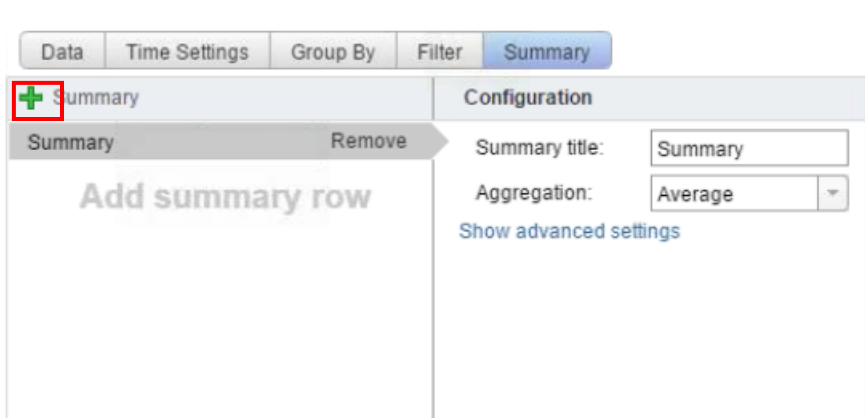
The **Data** window displays **Configuration|Name** when the Name object has been added successfully.

m. Click the **Time Settings** tab and change the **Relative Date Range** field from 7 days to 30 days.

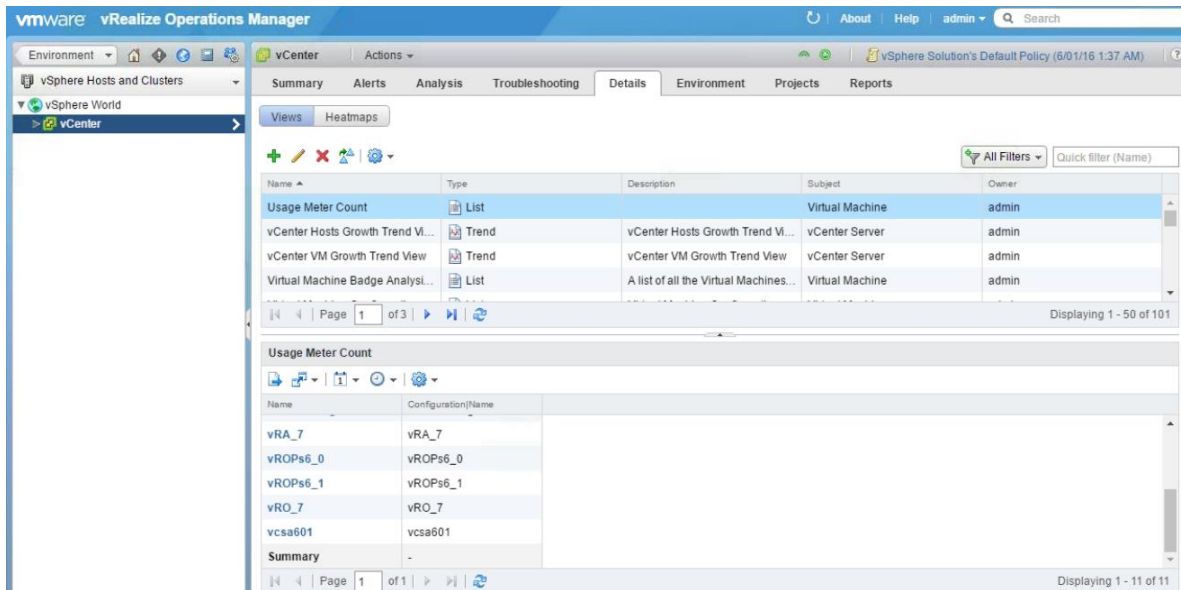
The screenshot shows the 'Configure Time Range for Data' dialog box. The 'Time Settings' tab is selected. The 'Time Range Mode' is set to 'Basic'. The 'Relative Date Range' option is selected, and the 'Last 30 Days' field is highlighted with a red box. The 'Specific Date Range' option is also visible, with 'Start on:' and 'to' fields.

**Note:** In vRealize Operations 6.0, this step is different. Instead of clicking the **Time Settings** tab, you set the time range for the View in the **Show data for last <number>** field. This field appears just above the tabs.

- n. Click the **Summary** tab, then click the  icon. You do not need to modify any of the fields that appear.



- o. Click **Save**.  
The View is displayed. From the list of VMs in the View, count only those VMs that are managed by vRealize Operations. Do not use the total number of VMs in the list as it may include other VMs.



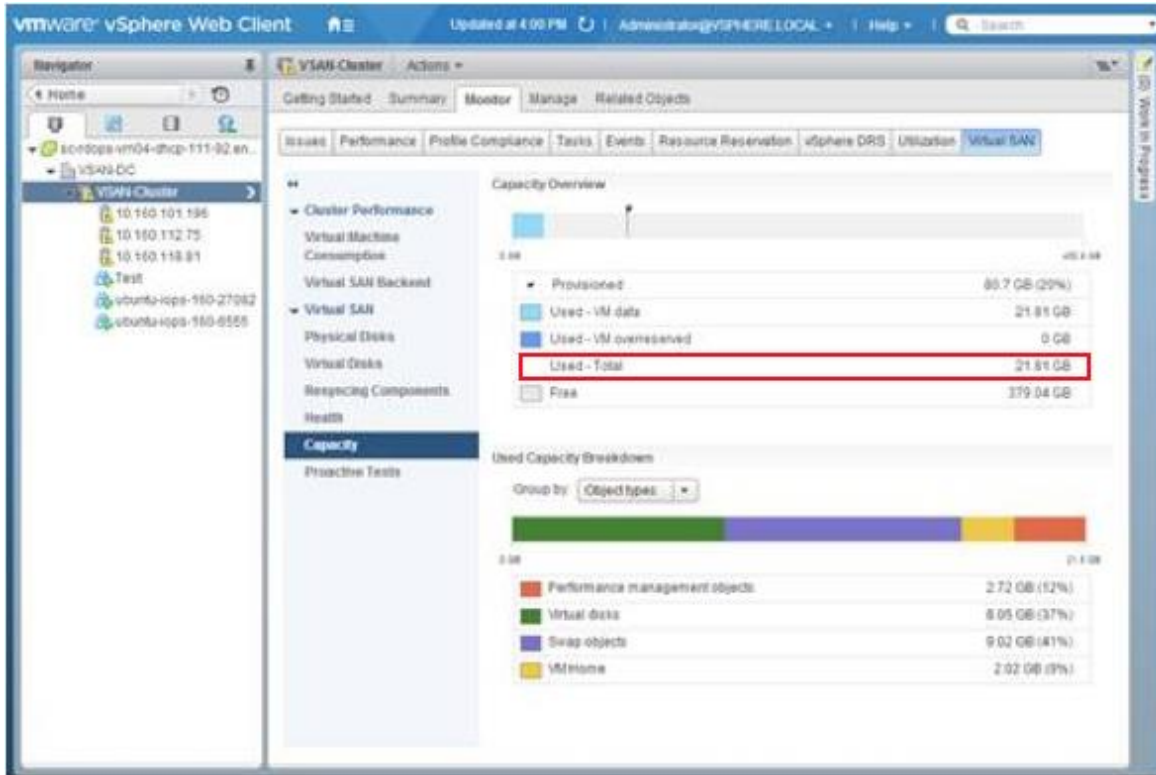
4. Run the View at any time from the **Details** tab of the **Environment – vSphere Hosts & Clusters - vCenter** page by clicking the View name. From the list of VMs that is displayed, count only those VMs that are managed by vRealize Operations.

The VM count value is used when manually adjusting monthly reports for bundles or standalone use.

Refer to [Appendix A](#), for information on adjusting monthly reports.

Manually collecting Usage Data for vSAN

The Used Capacity for each Virtual SAN cluster can be found in the vSphere Web Client under the **Capacity** tab as shown below. If the data center has several vSAN clusters, each one will be shown:



This **Used – Total** value will be used as the 'vSAN Storage Used' value per VM in all manual reporting adjustments.

Refer to [Appendix A](#) for information on adjusting monthly reports.

## Manually collecting Usage Data for NSX

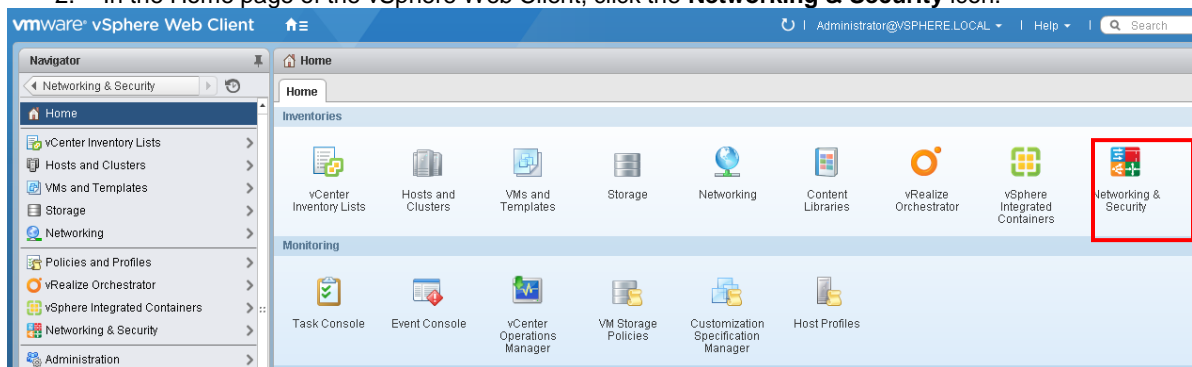
To collect NSX usage data, determine the number of VMs in your vCenter Server instance that use NSX.

Collecting this information involves the following tasks:

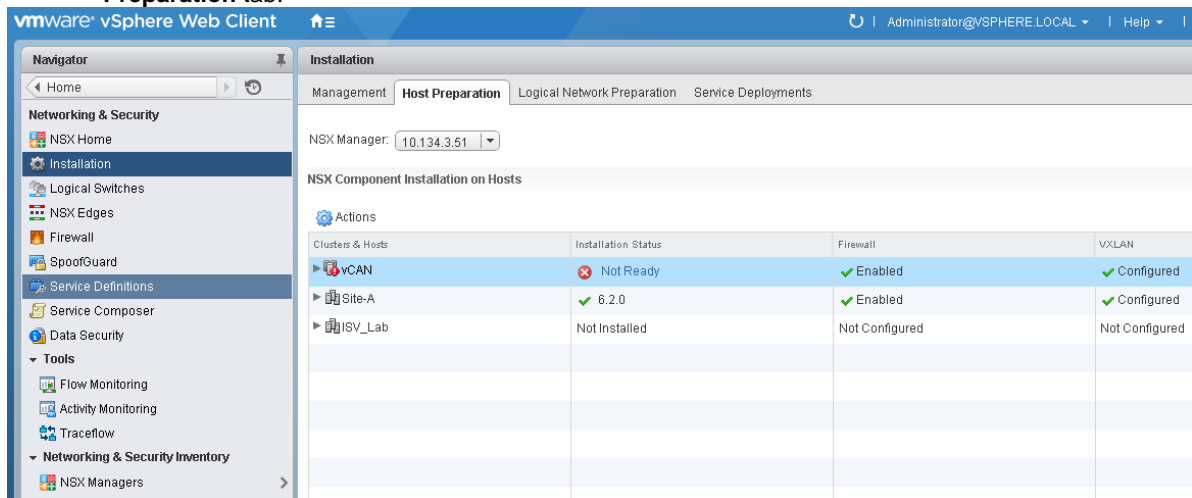
- Determine the hosts that have NSX installed.
- Export a list of all the VMs in the vCenter Server.
- From the list, count the number of VMs on each host that has NSX installed.

### Collect NSX Usage Data

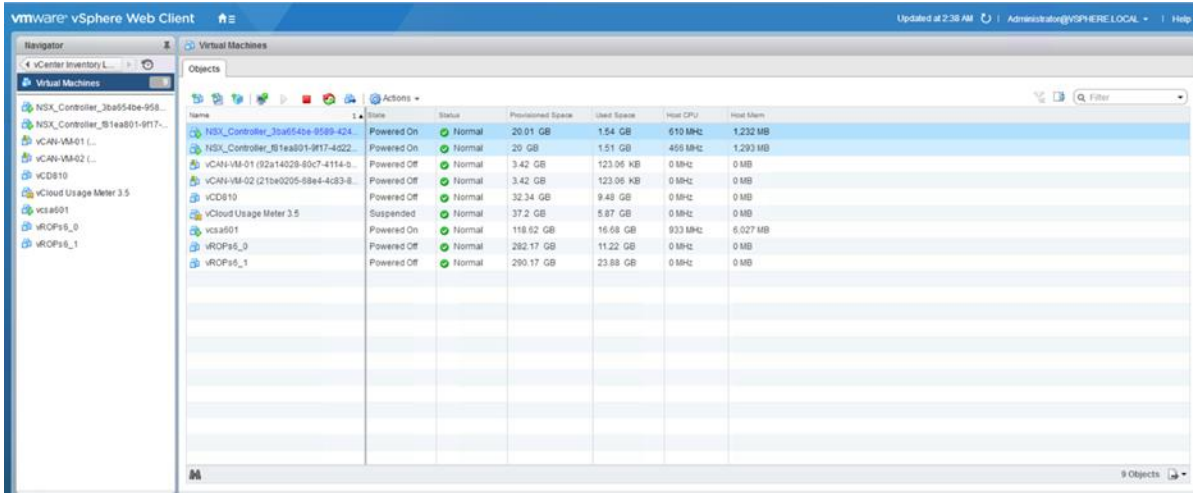
1. Use a browser to log into the vSphere Web Client.
2. In the Home page of the vSphere Web Client, click the **Networking & Security** icon.




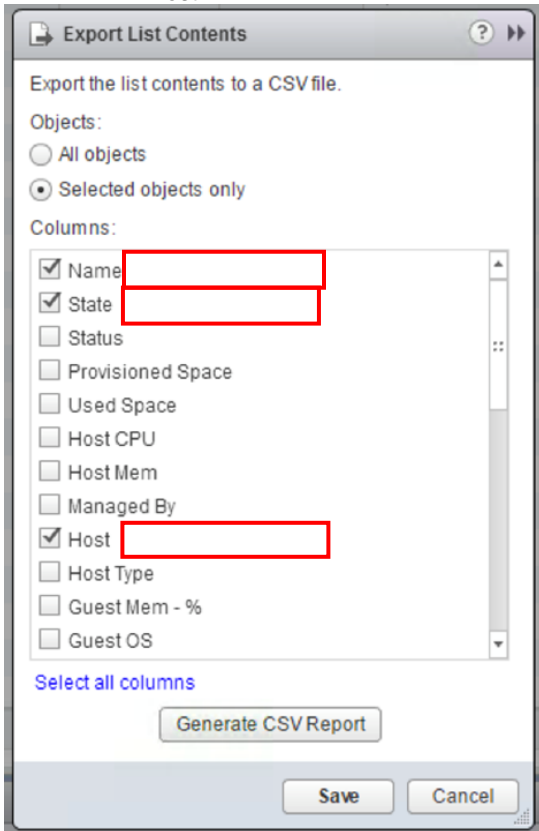
3. In the Navigator pane on the left, under **Networking & Security**, click **Installation**, then select the **Host Preparation** tab.



4. Make a note of the hosts that have NSX installed.
  5. In the Navigator pane, click **Home** to return to the vSphere Web Client Home page.
  6. In the Navigator pane, click **vCenter Inventory Lists**, then click **Virtual Machines**.
- All the virtual machines in your vCenter Server instance are listed.



7. Click the Export List icon  at the bottom-right of the page to export the list of VMs.
8. In the Export List Contents pop-up window, select the following items:
  - Name
  - State
  - Host



9. Click Generate CSV Report.
10. Sort the report by host name and count the number of VMs on each host that has NSX installed. The total number of VMs running NSX is used while manually adjusting monthly reports for bundles or standalone product usage. Refer to [Appendix A](#), for information on adjusting monthly reports.





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2017