



Monitoring and Reports

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Monitoring and Reporting

Cisco UCS Director provides several different kinds of reports that you can use to view the status of an SCVMM cloud and its components. All of these reports can be manually refreshed for real-time data and exported to PDF, CSV, or XLS format for you to share with others.

The available reports include:

- Summary reports for comparison data and other information about the components of SCVMM cloud. These reports display in bar, pie, and tabular chart widgets on **Summary** pages.
You can add some or all of these reports to your Cisco UCS Director dashboard for quick access.
- Tabular reports for detailed information about specific components.
- More reports include Top 5 reports and other reports for detailed information about high-performing resources. You can select the report type to display as tabular, trending, or instant. You can customize some of these reports by choosing the report widget and time duration.

Summary Reports

Summary reports enable you to view and monitor the virtual infrastructure and system resources by displaying Bar and Pie graphs to provide comparisons, such as active vs. inactive VMs, provisioned vs. capacity CPU, and so on. These reports help you understand system details and provide insight into how the system is performing.

You can customize your **Summary** pages to hide one or more reports. You can export the content of these reports in PDF, CSV, or XLS format. You can also add some or all of these reports to your Cisco UCS Director dashboard for quick access.

Viewing the Summary Report

The summary page displays a wide array of Tabular, Graphical, and Map reports to help the administrator manage system inventory. These reports are helpful for performing lifecycle actions on the inventory.

The administrator can configure settings to display only the required information for a given item. Each report is displayed as a widget, and can be hidden by customizing.

Step 1 Choose **Virtual > Compute**.

Step 2 Expand the Clouds and choose the SCVMM cloud.

On the Summary screen, you can view the various tabular and graphical summaries for the following:

Report	Description
Overview	Displays the cloud types, last status message, last polled time, server IP address, product name, product version, total VMs, and active VMs.
New VMs	Displays the new VMs for today, last 24 hours, and last hour.
Deleted VMs	Displays the deleted VMs for today, last 24 hours, and last hour.
VMs Active vs. Inactive	Displays the number of active and inactive VMs in the cloud.
Trend: Snapshot File Size	Displays the snapshot file size in the last 24 hours, week, or month.
Memory	Displays the total memory capacity, provisioned, and reserved.
CPU	Displays the total CPU capacity, provisioned, and reserved.
Disk	Displays the total disk capacity, provisioned, and reserved.
Trend: Number of VMs	Displays the number of total and active VMs in the last 24 hours, week, or month.
Trend: VM Additions & Deletions	Displays the VMs added and deleted in the last 24 hours, week, or month.
Trend: Number of Host Nodes	Displays the total nodes, active nodes, and total CPU sockets.

Report	Description
Number of Events by Severity	Displays the number of minor, major, and critical events in the last 24 hours, week, or month.

Tabular Reports

Tabular reports provide the status of the components in an SCVMM cloud. You can export the data from any tabular report in PDF, CSV, or XLS format. If you have scheduled inventory collection, the status is updated regularly. Otherwise, you can click **Refresh** on the tabular report to get real-time status.

You can access tabular reports from any page after you choose the SCVMM cloud. Following reports are available:

- Compute reports
- Storage reports
- Network reports

For some components, you can click a row in the tabular report and access more detailed information through **View Details**.

Monitoring Inventory

The cloud dashboard displays complete SCVMM cloud-level infrastructure information. You can monitor inventory using this dashboard. There are various tabs you can view for a selected cloud.



Note

Remember to always click **Refresh** to see all updates to the physical infrastructure.

Step 1 Choose **Virtual > Compute**.

Step 2 Expand the clouds and choose the SCVMM cloud.
You can view the following inventory information:

Tab	Description
Polling	Displays the start time, collection type, status, message, and end time. The polling interval depends upon the cloud polling interval set in administration system parameters. You can also click Request Inventory Collection to view an on-demand inventory.

Tab	Description
vDCs	<p>Displays information about the vDCs associated with the account, including the group, type, lock state, total VMs, active VMs, number of custom categories, status, and tag. The catalog item can become invalid when image, template, approver, or policies used in the catalog no longer exist.</p> <p>Clicking View Details that appears when you choose a vDC provides additional information of vDC. The additional information includes summary, VMs, events, static IP assignment (Static IP assignment is not applicable for Hyper-V), deleted VMs, VM action requests, vDC compliance on VMs, and more reports.</p>
VM Action Requests	<p>Displays the VM ID, action ID, user name, comments, and scheduled time of the action requests.</p>
Events	<p>Displays information about all events related to the account, including severity, event time, user, event ID, event type, event code, description, instance name, host name, VM type, and parent node.</p>
VMs	<p>Displays the list of VMs in the account. Provides actions to assign VM to users and user group, configure lease time, stack view, access VM credentials, and launch VM client.</p> <p>Clicking View Details that appears when you choose a VM provides additional information of VM. The additional information includes details, service request details, snapshots, VM action requests, events, disks, vNICs, VM network connectivity, and more reports.</p>
Clusters	<p>Displays the information of clusters that include the cluster name, total memory (GB), effective memory (GB), total CPU (GHz), effective CPU (GHz), CPU cores, effective hosts, hosts, validation status, and host group.</p> <p>Clicking View Details that appears when you choose a cluster provides additional information of cluster. The additional information includes summary, host node, cluster shared volumes, file shares, available storage, virtual switches, VMs, events, cluster network connectivity, and service request details.</p>

Tab	Description
Host Nodes	<p>Displays the host node, cluster name, product name, product version, host OS, host OS version, active VMs, total VMs, power status, VMRC state, PRO state, and host group of the cloud, and the SCVMM cloud to which it is assigned.</p> <p>Clicking View Details that appears when you choose a host node provides additional information of host node. The additional information includes summary, service requests, VMs, events, deleted VMs, host volumes, file shares, physical disks report, host network topology, and more reports.</p>
Deleted VMs	<p>Displays the details of the deleted VMs. When you choose a VM and click View Details, you get deleted VM details, service request details, snapshots, VM action requests, events, disks, vNICs, VM network connectivity, and more reports.</p>
Images	<p>Displays the image name, parent node, guest OS, integration services, memory (MB), number of CPUs, and last updated time.</p> <p>Note Administrators can provision new VMs from these images.</p> <p>Choose an image and click View Details to view the disk and vNICs details of the image.</p>
Library Servers	<p>Displays a list of library servers in the cloud.</p> <p>Choose a library server and click View Details to view the information about stored VMs, stored disks, ISOs, and library shares of the library server.</p>
Host Groups	<p>Displays the host group, account, parent host group, root status, inherit network settings, and the SCVMM cloud to which it is assigned,</p> <p>Choose a host group and click View Details to view the summary, logical units, storage pools, MAC address pools, logical network definitions, and service request details of the host group.</p>
Jobs	<p>Displays the history for the SCVMM jobs queue in the last 2 hours.</p>
Run As Accounts	<p>Displays the credentials that a user enters for any process as a Run As account. A Run As account is a container for a set of stored credentials.</p>

Tab	Description
Custom Resources	Displays a list of custom resource package which is simply a folder in the SCVMM library with a .cr extension. This folder contains all the files required by your script, and the script itself. The script is executed in this folder as its working directory once it is all copied over to the machine.
VMM Cloud	Choose a VMM cloud and click View Details to view the cloud details for VMs in the cloud, host groups, logical network, port classifications, storage classifications, library share, load balancers, capacity, capability profiles, and VIP template.
Topology	Choose a topology type and click View Connectivity to view topology in the hierarchical, concentric, circular, or force directed view mode and adjust factors such as item spacing, distance, radius, rigidity, and force distance.
Top 5 Reports	Displays reports on the top five VMs, hosts, and vDCs in several categories, including memory usage, CPU usage, and disk usage.
Map Reports	Displays reports as maps, including a CPU utilization map, VM density, inactive VMs, and storage usage.
More Reports	Provides tabular, trending, and instant reports on VMs, CPUs, events, snapshot file size, CPU usage, and disk.

Viewing the Storage Report

Step 1 Choose **Virtual > Storage**.

Step 2 Expand the Clouds and choose the SCVMM cloud.
You can view the storage details in the following tabs:

Tab	Description
Summary	<p>Displays the overview of datastore, local storage information, NTFS (SAN), and Server Message Block (SMB) in the tabular format. Displays the following graphs:</p> <ul style="list-style-type: none"> • Used storage per storage type • Total capacity per storage type • Trend: Storage capacity, used, and free (last week) • Trend: Storage free by storage type (last week) • Trend: Storage used by storage type (last week) • Total capacity used by storage type (last week) • Free storage per storage type
DataStore Capacity Report	Displays the datastore capacity report. Choose a report and click View Details to view more details about the report. The report includes summary, VM Disks, hosts, top five reports, service request details, and more.
File Server Report	Displays the file server report. Choose a report and click View Details to view the file shares report and service request details.
Storage Array Report	Displays the storage array report. Choose a report and click View Details to view the storage pools report and service request details.
Storage Provider Report	Displays the storage provider report with the status. Choose a report and click View Details to view the service request details.
Storage Classifications Report	Displays the storage classification name, account name, description, accessibility, if enabled, and the SCVMM cloud to which it is assigned. Choose a report and click View Details to view the storage pools report and service request details.
Map Reports	Displays storage usage reports as maps. Click the Show Labels check box to view the report label.
More Reports	Provides tabular, trending, and instant reports on storage provider, storage capacity, and storage usage reports.

Viewing Network Reports

Step 1 Choose **Virtual > Network**.

Step 2 Expand the Clouds and choose the SCVMM cloud.
You can view the network details in the following tabs:

Tab	Description
Summary	Displays an overview of virtual networks information.
Network Inventory Report	Displays the host node, VLAN supported, virtual networks, physical network adapters, and host power state information.
Host Network Adapters Report	Displays the host node, name, connection name, network location, logical networks, physical address, IP address, status, VLAN mode, VLAN IDs, virtual network, and description information.
VM Network Adapters Report	Displays the ID, VM name, host name, name, adapter type, access, physical address, enable state, VLAN ID, MAC address, logical network, VM network, VM subnet, and virtual network information.
Logical Networks Report	Displays the name, description, network virtualization enabled, private LAN enabled, use GRE, isolated sites, network entity access, virtual switch extension manager, and the SCVMM cloud to which it is assigned.
Logical Switches Report	Displays the account name, name, description, uplink mode, minimum bandwidth mode, SRIOV enabled, and virtual switch extensions information.
MAC Address Pools Report	Displays the name, description, starting MAC address, ending MAC address, available addresses, unassigned addresses, total addresses, host groups, and supported virtualization platforms information.
Static IP Address Pools Report	Displays the account name, name, description, subnet, VLAN ID, starting IP address, ending IP address, if it is a multicast pool, DNS servers, default gateway, WINS servers, logical network definition, and VM subnet information.
Port Classifications Report	Displays the name, description, logical switch, SCVMM cloud, and tag information.

Tab	Description
Virtual Network Adapter Port Profiles Report	Displays the name, description, minimum bandwidth weight, absolute minimum bandwidth (Mbps), absolute maximum bandwidth, allow teaming, allow MAC address spoofing, allow IEEE priority tagging, enable DHCP guard, enable VMQ, enable IPsec offload, enable SR-IOV, network entity access type, and virtual switch extensions information.
Uplink Port Profiles Report	Displays the name, description, load balancing algorithm, teaming mode, network virtualization enabled, logical network definitions, network entity access type, and virtual switch extensions information.
Network Services Report	Displays the account, name, connection string, manufacturer, model, run as account, and provider information.
Virtual Switches Report	Displays the host node, name, network type, highly available, network optimization available, virtual DHCP enabled, description, and tag information.
VM Networks Report	Displays the name, description, logical network, isolation type, GRE enabled, PVLAN enabled, network entity access type, and tag information.

Cloudsense Reports

CloudSense Analytics in Cisco UCS Director provide visibility into the infrastructure resources utilization, critical performance metrics across the IT infrastructure stack, and capacity in real time. CloudSense significantly improves capacity trending, forecasting, reporting, and planning of virtual and cloud infrastructures.

You can generate the following reports for Hyper-V accounts with CloudSense:

- Hyper-V cloud utilization summary report
- VM activity report by group
- VM performance summary
- Virtual infrastructure and assets report

Generating a Report

Before You Begin

You must be signed into the appliance before completing this task.

Step 1 Choose **CloudSense > Reports**.

Step 2 Click a tab based on the type of report you want to generate. It can be one of the following:

- Application Container Report
- Billing Report for a Customer
- Cisco C880M4 Inventory Report
- EMC Storage Inventory Report
- Group Infrastructure Inventory Report
- Hyper V Cloud Utilization Summary Report
- IBM Storwize Inventory Report
- NetApp Storage Inventory Report
- NetApp Storage Savings Per Group Report
- NetApp Storage Savings Report
- Network Impact Assessment Report
- Organizational Usage of Virtual Computing Infrastructure Report
- PNSC Account Summary Report
- Physical Infrastructure Inventory Report for a Group
- Service Request Statistics
- Service Request Statistics Per Group
- Storage Dedupe Status Report
- Storage Inventory Report for a Group
- Thin Provisioned Space Report
- UCS Data Center Inventory Report
- VM Activity Report By Group
- VM Performance Summary Report
- VMware Cloud Utilization Summary Report
- VMware Host Performance Summary Report
- Virtual Infrastructure and Assets Report

Step 3 Click **Generate Report**.

Step 4 In the **Generate Report** screen, complete the required fields, including the following:

Name	Description
Context drop-down list	Select the group that you want to generate the report for. Note If you are an administrator, then this drop-down list displays all the groups for which you have administrative privileges. For example, if you are an MSP administrator, then this drop-down list displays all the customer groups that you manage. This list does not display any other groups.
Report Label field	You can provide a label for the report to distinguish it from the other reports that you generate.

Step 5 Click **Submit**.

The report is generated in the system. This generated report is accessible only to you and to users in the groups that you manage. For example, if you are an MSP administrator, then this generated report is not visible to other MSP administrators or groups.

Generating an Assessment

Step 1 Choose **CloudSense > Assessments**.

Step 2 Click **Generate Report**.

Step 3 In the **Generate Report** screen, complete the required fields, including the following:

Name	Description
Context drop-down list	Select the group that you want to generate the report for. Note If you are an administrator, then this drop-down list displays all the groups for which you have administrative privileges. For example, if you are an MSP administrator, then this drop-down list displays all the customer groups that you manage. This list does not display any other groups.
Report Label field	You can provide a label for the report to distinguish it from the other reports that you generate.

Step 4 Click **Submit**.

