VMware Skyline Collector Installation and Configuration Guide

VMware Skyline 1.4
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About VMware Skyline Collector Installation and Configuration Guide

The VMware Skyline Collector Installation and Configuration Guide provide information about the VMware® Skyline™ Collector system requirements and instructions for installing and configuring the Skyline Collector.

Intended Audience

This information is intended for anyone who wants to install, configure, or update the VMware Skyline Collector. It is written for VMware® vSphere® administrators.

VMware Technical Publications Glossary

VMware Technical Publications provides a glossary of terms that might be unfamiliar to you. For definitions of terms as they are used in VMware technical documentation, go to https://www.vmware.com/support/pubs/
Skyline Collector Overview

VMware® Skyline™ Collector is a VMware® virtual appliance that collects diagnostic data about your VMware® vSphere® and VMware® NSX® environments that enhances the product supportability through VMware’s Global Services Support delivery.

Use of the Skyline Collector requires registration with VMware.

The registration functions include:

- Customer Experience Improvement Program (CEIP) - Enhanced Support
- To keep your data safe, registration function uses Secure, private, and transparent approach.
- Authentication with VMware’s My VMware Customer Portal.
- To register the Skyline Collector securely authenticate your My VMware customer account.
- Customer Entitlement Account validation.
- Enable an improved support experience for Production Support and Premier Services customers.
Skyline Collector System Requirements

To install the Skyline Collector, ensure that your system meets the following hardware and software requirements.

**Software Requirements**

- vCenter Server 5.5 or later.
- ESXi v5.5 or later.
- NSX for vSphere 6.1 or later*
  
  *Configuration of NSX is optional.

**Appliance Resource Requirements**

You can run the VMware Skyline Collector on any system that meets the minimum system requirements.

**Table: Hardware Requirements for the Skyline Collector virtual appliance**

<table>
<thead>
<tr>
<th>Number of vCPUs</th>
<th>Memory</th>
<th>Disk Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>8 GB</td>
<td>87 GB (1.1 GB initial if thin provisioned)</td>
</tr>
</tbody>
</table>

**Networking Requirements**

The Skyline Collector uses network connections to collect and transfer support information securely. The diagram shows the default networking connections.

The Skyline Collector needs access to all vCenter Server and NSX Manager collection endpoints within the environment to collect product information data. It also needs access to the Internet to upload data. An HTTP proxy server can be used to proxy connectivity to the Internet, but access to product endpoints must be direct.

**Table: External Network Connectivity Requirements**

<table>
<thead>
<tr>
<th>Machine</th>
<th>Connection To</th>
<th>Connection Type</th>
<th>Protocol</th>
<th>Port</th>
</tr>
</thead>
<tbody>
<tr>
<td>VMware Skyline Collector</td>
<td>vcsa.vmware.com</td>
<td>HTTPS</td>
<td>TCP/IP</td>
<td>443</td>
</tr>
<tr>
<td>VMware Skyline Collector</td>
<td>vapp-updates.vmware.com</td>
<td>HTTPS</td>
<td>TCP/IP</td>
<td>443</td>
</tr>
</tbody>
</table>
Table: Internal Network Connectivity Requirements

<table>
<thead>
<tr>
<th>Machine</th>
<th>Connection To</th>
<th>Connection Type</th>
<th>Protocol</th>
<th>Port</th>
</tr>
</thead>
<tbody>
<tr>
<td>VMware Skyline Collector</td>
<td>vCenter Server</td>
<td>HTTPS</td>
<td>TCP/IP</td>
<td>443</td>
</tr>
<tr>
<td>VMware Skyline Collector</td>
<td>PSC/SSO Service provider 5.5</td>
<td>HTTPS</td>
<td>TCP/IP</td>
<td>7444</td>
</tr>
<tr>
<td>VMware Skyline Collector</td>
<td>PSC/SSO Service provider 6.0 / 6.5</td>
<td>HTTPS</td>
<td>TCP/IP</td>
<td>443</td>
</tr>
<tr>
<td>VMware Skyline Collector</td>
<td>NSX Manager</td>
<td>HTTPS</td>
<td>TCP/IP</td>
<td>443</td>
</tr>
<tr>
<td>Web browser</td>
<td>Skyline Collector user interface</td>
<td>HTTPS</td>
<td>TCP/IP</td>
<td>443</td>
</tr>
<tr>
<td>Web browser</td>
<td>Skyline Collector (VAMI)</td>
<td>HTTPS</td>
<td>TCP/IP</td>
<td>5480</td>
</tr>
</tbody>
</table>

**Note** The tables contain the default port values and might not match a customized environment.
Skyline Collector User Accounts and Permissions

This section contains information about Skyline Collector user accounts and product user permissions.

This chapter includes the following topics:

- User Accounts
- Product User Permissions

User Accounts

This section describes the built-in Skyline Collector user accounts.

Admin

The admin account is the primary user account to interact with the Skyline Collector. This account is used to log into the Skyline Collector user interface. The password for the admin account is set during the initial configuration of the appliance.

Root

The root account must only be used for updating the appliance through the Virtual Appliance Management Interface (VAMI). The VAMI can be accessed at the following address: https://skyline_collector_ip_address_or_fqdn:5480. The password for the root account is set during the import of the appliance in vCenter Server.

Using the root account to log in to the Skyline Collector through the console must only be performed whereas troubleshooting in coordination with VMware Global Support Services (GSS). Logging on and changing information inside the appliance with the root account is not supported.

Product User Permissions

This section describes the permissions required for Skyline Collector to collect product use information from each VMware product endpoint.

The Skyline Collector requires read-only access to vCenter Server and NSX Manager to collect product use data.
vCenter Server User Permissions

The Skyline Collector requires a user account with read-only privileges to vCenter Server, including license data, to combine specific product deployments. A user account with the following permissions is required to connect the Skyline Collector to each vCenter Server for the product use data collection.

- Read-only (default vCenter Server read-only privilege)
- Global -> License

To create a user with these privileges, refer to the documentation specific to your version of vCenter Server.

NSX Manager User Permissions

The Skyline Collector requires a user account with Auditor (read-only) or similar privileges with access to query information through APIs to NSX Manager.

Instructions for how to create a user with API privileges within NSX Manager can be found within VMware Knowledge Base Article 2150736.

Refer to the documentation specific to your version of NSX for vSphere to set up a user account with these privileges.
Installing the Skyline Collector

This topic provides step-by-step instructions for installing the Skyline Collector.

The Skyline Collector is distributed as a virtual appliance in Open Virtualization Appliance (OVA) format. You can deploy the Skyline Collector appliance using the vCenter Server OVF deployment wizard.

An appliance is a pre-configured virtual machine that typically includes a pre-installed guest operating system and other software.

After you deploy the Skyline Collector, you can access the Skyline Collector user interface using a web browser and browsing to the IP address or fully qualified domain name of the deployed appliance.

Procedure

1. Install the Client Integration Plug-In.
   The Client Integration Plug-in provides access to the virtual machine’s console in the vSphere Web Client and provides access to other vSphere infrastructure features. The Client Integration Plug-in also lets you deploy virtual appliances and log in to the vSphere Web Client using Windows session credentials.

2. Deploy the Skyline Collector virtual appliance.
   The Skyline Collector is distributed as an appliance in OVA format that you can deploy using the vSphere Web Client.

3. Power on the Skyline Collector and Open the User Interface.
   To use the Skyline Collector, first power it on and retrieve the IP address of the virtual appliance.

4. Using the Registration Wizard.
   The Skyline Collector must be registered before you can begin receiving proactive findings and recommendations from VMware.

This chapter includes the following topics:

- Installing the Client Integration Plug-In
- Deploying the Skyline Collector
- Power on the Skyline Collector and Open the User Interface
- Access the User Interface
Installing the Client Integration Plug-In

This section describes how to install the Client Integration plug-in.

**Prerequisites**

If you are using Microsoft Internet Explorer, disable Protected Mode.

The Client Integration Plug-in provides access to a virtual machine’s console in the vSphere Web Client and provides access to other vSphere infrastructure features. The Client Integration Plug-in also let you deploy Virtual Appliances and log in to the vSphere Web Client by using Windows session credentials.

You use the Client Integration Plug-in to deploy OVF or OVA templates and transfer files with the datastore browser. You can also use the Client Integration Plug-in to connect virtual devices that reside on a client computer to a virtual machine.

Install the Client Integration Plug-in only once to enable all the functionality the plug-in delivers. You must close the Web browser before installing the plug-in.

If you install the Client Integration Plug-in from an Internet Explorer browser, you must first disable the Protected mode and enable pop-up windows on your Web browser. Internet Explorer identifies the Client Integration Plug-in as being on the Internet instead of on the local intranet. In such cases, the plug-in is not installed correctly because Protected Mode is enabled for the Internet.

For information about supported browsers and operating systems, see the vSphere Installation and Setup documentation.

**Procedure**

1. In the vSphere Web Client, navigate to the link to download the Client Integration Plug-in.

   Table: Client Integration Plug-in

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>vSphere Web Client</td>
<td>Open a Web browser and type the URL for the vSphere Web Client.</td>
</tr>
<tr>
<td>login page</td>
<td>At the bottom of the vSphere Web Client login page, click <strong>Download Client Integration Plug-in</strong>.</td>
</tr>
<tr>
<td></td>
<td><strong>Note</strong> If the Client Integration Plug-In is already installed on your system, you will not see the link to download the plug-in. If you uninstall the Client Integration Plug-In, the link to download it displays on the vSphere Web Client login page.</td>
</tr>
<tr>
<td>OVF deployment wizard</td>
<td>Select a host in the inventory.</td>
</tr>
<tr>
<td></td>
<td>Select <strong>Actions</strong> and navigate to <strong>Deploy OVF Template</strong>.</td>
</tr>
<tr>
<td></td>
<td>Click <strong>Download Client Integration Plug-In</strong>.</td>
</tr>
</tbody>
</table>

2. If the browser blocks the installation either by issuing certificate errors or by running a pop-up blocker, follow the Help instructions for your browser to resolve the problem.

   If you are using Google Chrome and having issues with the Client Integration Plug-in, see Knowledge Base Article 2130672.
Deploying the Skyline Collector

This section describes how to deploy the Skyline Collector.

The Skyline Collector is distributed as a virtual appliance in OVA format. Use the vSphere Web Client to deploy the Skyline Collector within your environment.

Prerequisites

- Verify that your system meets the minimum hardware and software requirements. See Skyline Collector System Requirements.
- Download the Skyline Collector installation file.

Procedure

1. Log in to the vSphere Web Client with a user account that has virtual machine deploy permissions.
2. In the vSphere Web Client, select an inventory object that is a valid parent object of a virtual machine such as a data center, folder, cluster, resource pool, or host.
3. Click Actions. Navigate to Deploy OVF Template. You can access the Actions menu by right-clicking on the selected object (data center, folder, cluster, resource pool, or host) or by selecting Actions in the top-center of the vSphere Web Client.
4. Enter the URL or select Local File and Browse to the Skyline Collector OVA file, and click Next.
5. Enter a name for the Skyline Collector and select a deployment location, such as a data center or folder, and click Next.
6. Select a host, cluster, or resource pool for where to run the Skyline Collector, and click Next.
7. Review the template details and click Next.
8. Read the VMware End User License Agreement (EULA) and click Accept, then click Next.
9. Select a location to store the Skyline Collector virtual disk files.
   a. Select the virtual disk format from the dropdown. The Skyline Collector supports thick provisioned lazy zeroed, thick provisioned eager zeroed, and thin provision.
   b. Select a VM storage policy, if applicable.
   c. Select the datastore, or datastore cluster, for where to store the Skyline Collector virtual disk files.
   d. Select Next.

Table: Disk Provisioning

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thick Provisioned Lazy Zeroed</td>
<td>Creates a virtual disk in a default thick format. Space required for the virtual disk is allocated when the virtual disk is created. Existing data on the physical device is not erased during creation but is zeroed out on first write from the virtual machine.</td>
</tr>
</tbody>
</table>
Thick Provision  Eager Zeroed
A type of thick virtual disk that supports clustering features such as Fault tolerance. Space required for the virtual disk is allocated upon creation. In contrast to the lazy zeroed format, the data existing on the physical device is zeroed out when the virtual disk is created. Creating disks in this format might take much longer than creating other types of disks.

Thin Provision  Use this format to save hard disk space. For the thin disk, you provision as much data store space as the disk requires based on the value that you enter for the disk size. However, the thin disk starts small, and at first, uses only as much datastore space as the disk needs for its initial operations.

10 Select a network that provides the appropriate network access as described in Networking Requirements.
   a Select a Destination Network from the drop-down menu for the Skyline Collector.
   b Select a IP Protocol from the drop-down menu. The Skyline Collector supports IPv4 and IPv6.
   c Select Next.

11 The final step is to customize the deployment of the Skyline Collector. Customization includes creating a root password and entering static IP address information (optional).
   a A root password is required. The password must be at least 8 characters long.
   b To configure a dynamic IP address, leave all networking properties boxes empty. To configure a static IP address, enter the information specific to your network. The appliance must be able to resolve the hostnames for vCenter Server, Single Sign-On authentication, and any additional product endpoints (NSX Manager).
   c Click Next after finishing customizing the template.

12 Review the configuration data you provided for the Skyline Collector. Click Finish to complete the Deploy OVF Template wizard.

Power on the Skyline Collector and Open the User Interface

This section describes how to power on the Skyline Collector virtual appliance.

To use the Skyline Collector, you must first power it on and get the IP address of the virtual appliance.

Procedure
1 Log in to the vSphere Web Client.
2 Right-click on the Skyline Collector virtual appliance, select Power, and select Power On.
3 View the IP address of the Skyline Collector on the Summary tab within the vSphere Web Client. You might need to refresh the vSphere Web Client to view the IP address of the Skyline Collector after powering it on.

Note A browser security warning appears the first time you browse to the user interface. The warning is an expected behavior.
Access the User Interface

This section describes how to access the Skyline Collector user interface.

Prerequisites

- The Skyline Collector IP address or fully qualified domain name (FQDN).

Procedure

1. Open a web browser and enter the URL for the Skyline Collector.  
   https://skyline_collector_ip_address_or_fqdn
2. Log in to the user interface using the default values below. Click **Log In**.
   
<table>
<thead>
<tr>
<th>Username</th>
<th>admin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Password</td>
<td>default</td>
</tr>
</tbody>
</table>

3. You will be forced to change this password at first login. The new password must meet the following character requirements:
   - Minimum of 8 characters
   - One lowercase letter
   - One uppercase letter
   - One special character (!@#$&)
   - One number
4. Click **Change** after entering a new password. You must re-login to the Skyline Collector user interface after changing the password.
5. Select **Login Again** to return to the login screen.
Initial Configuration

Registration of the Skyline Collector is required for the delivery of proactive support.

This chapter includes the following topics:

- Network Connectivity
- Customer Experience Improvement Program (CEIP)
- Link My VMware Account
- Continue Configuration
- Collector Name
- Auto-Upgrade
- Add vCenter Server
- Add NSX Manager

Network Connectivity

This section describes how to configure an HTTP proxy server.

The Skyline Collector uploads encrypted product usage data to VMware over the Internet. If required by your organization, an HTTP proxy server can be configured between the Skyline Collector and the Internet.

Procedure

1. To configure a Proxy Server, toggle the Use a Proxy Server switch to Yes. If not, leave the Use a Proxy Server switch set to No and proceed to Step 6.

2. Enter the Proxy Server IP Address.

3. Enter the Proxy Server Port.

4. If needed, enter the Proxy Server user name.

5. If needed, enter the Proxy Server password for the user name specified in the previous step.

6. Click Test Connectivity.

7. Click Continue.
Customer Experience Improvement Program (CEIP)

This section describes the Customer Experience Improvement Program (CEIP).

Collection of product usage data by the Skyline Collector is subject to acceptance in VMware’s Customer Experience Improvement Program (CEIP). Additional information regarding the CEIP can be found at https://www.vmware.com/solutions/trustvmware/ceip.html.

Procedure

- After reviewing the CEIP details, Click **Agree and Continue**.

Link My VMware Account

This section describes how to link your My VMware account to the Skyline Collector.

Skyline Collector registration requires a My VMware account associated with an active VMware production support or premier services support entitlement.

Prerequisites

- A My VMware account that is connected to a Production Support or Premier Services entitlement account.
- A My VMware account that has File SR permissions.

Procedure

1. Enter your **My VMware account email address**.
2. Enter the **password** for the My VMware account email address you provided in the previous step.
3. Click **Link Account**.
4. After the Skyline Collector has validated your My VMware credentials, click **Continue**.

Your associated Entitlements to that My VMware account will be displayed.

**Note**  Valid support entitlements for VMware Skyline include Production Support, Business Critical Support (BCS), Mission Critical Support (MCS), Health Care Support (HCS) and Carrier Grade Support (CGS).

Continue Configuration

This section describes configuring vCenter Server and NSX Manager for data collection.

You are now ready to configure vCenter Server and NSX Manager. If you need to request or create appropriate accounts or credentials, you can do so now. You can complete this step later without having to rerun the Initial Configuration.
Prerequisites

- For vCenter Server, A user account with the following permissions is required.
  - Built-in vCenter Server read-only role
  - Global > License
- For NSX Manager, A user account with the following permissions is required.
  - Built-in NSX Manager Auditor role

Procedure

- Click Continue.

Collector Name

This section describes how to create a friendly name for the Skyline Collector.

A friendly name describes the environment you are configuring the Skyline Collector to collect data from. This name is used to make it easier for VMware GSS to communicate information about the Skyline Collector with you.

Example: East-Production

Procedure

1. Enter a Friendly Name.
2. Click Set Friendly Name.
3. Click Continue.

Auto-Upgrade

This section describes how to enable auto-upgrade for the Skyline Collector.

The Skyline Collector supports the ability to automatically install upgrades, if available. Auto-Upgrade checks for and installs updates to the Skyline Collector at a specific time and day of the week that you specify.

Prerequisites

- The Skyline Collector must be able to receive update notifications from vapp-updates.vmware.com.
  For more details regarding networking requirements, see Networking Requirements

Procedure

1. To enable Auto-Upgrade, toggle the Enable Collector Auto-Upgrade switch to Yes. If you do not want to enable Auto-Upgrade, skip to Step 4.
2 Choose your auto-upgrade configuration.
   a From the dropdown menu, choose a day of the week for the Skyline Collector to check for and install updates, if available.
   b From the dropdown menu, choose a time of the day for the Skyline Collector to check for and install updates, if available.

3 Click Set Upgrade Configuration to save your settings.

4 Click Continue.

After each collector auto-upgrade, an email notification will be sent to the My VMware email address used during the initial configuration.

Add vCenter Server

This section describes how to add a vCenter Server to the Skyline Collector.

Prerequisites

- A user account with the following permissions in vCenter Server is required to configure vCenter Server for product usage data collection.
  - Built-in vCenter Server read-only
  - Global > License

Procedure

1 Enter the vCenter Server details.
   a Enter the vCenter Server IP address or fully-qualified domain name (FQDN).
   b Enter the vCenter Server read-only user account Username.
   c Enter the Password for the user account specified in the previous step.

2 If you are using an external Platform Services Controller (PSC), Single-Sign On (SSO) provider or have a custom SSO domain, toggle the Use Custom SSO Configuration switch to Yes.
   a Enter the PSC/SSO server IP address or fully-qualified domain name (FQDN).
   b If you are using the default PSC/SSO provider configuration, you do not need to complete the Advanced Options (optional) fields. Complete the SSO Admin URL, SSO STS URL and Lookup Service URL only if you specified a custom configuration during the deployment of your PSC or SSO provider.
   c If you do not want to collect product usage data from all data centers connected to the vCenter Server you are configuring, toggle the Collect from all Datacenters switch to No, then click Add. An invalid certificate warning may appear. This is expected, click Continue. Select the checkbox next to each data center that you want to collect product usage data for. When finished selecting data centers, click Enable Selected Datacenters.
3 Click **Add** to complete the addition of vCenter Server to the Skyline Collector for product usage data collection.

**Note** Disabling product usage data collection from data centers may prohibit VMware from providing an optimal support experience.

## Add NSX Manager

This section describes how to add an NSX Manager to the Skyline Collector.

If NSX is deployed within your environment, you may configure the product usage data collection for NSX now or you can skip this step and configure NSX product usage data collection later.

### Prerequisites

- A user account with the following permissions in NSX Manager will be required to configure NSX Manager for product usage data collection.
  - NSX Manager built-in Auditor role.

### Procedure

1. Enter the NSX Manager details.
   - a Enter the NSX Manager **IP address** or **fully-qualified domain name (FQDN)**.
   - b Enter the NSX Manager user account **Username**.
   - c Enter the **Password** for the user account specified in the previous step.

2. Click **Add** to complete the addition of NSX Manager to the Skyline Collector for product usage data collection.

The Skyline Collector is now registered and connected to your vCenter Server and/or NSX Manager for product usage data collection. This step allows you to review your configuration.

### What to do next

You can review your endpoints, modify endpoints, or add endpoints within the VMware Skyline Collector user interface. Refer to the VMware Skyline Collector User Guide for more information. Click **Finish** to complete the Initial Configuration of the Skyline Collector.