VMware® Skyline™ Collector Installation and Configuration Guide

VMware® Skyline™ Collector v1.2

This document supports the version of each product listed and supports all subsequent versions until the document is replaced by a new edition.

You can find the most up-to-date technical documentation on the VMware Web site at:

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Contents

VMware Skyline Collector Installation and Configuration Guide

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

Intended Audience

This information is intended for anyone who wants to install, configure, or update 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 product supportability through VMware's Global Services Support delivery.

Use of Skyline Collector requires registration with VMware.

The registration functions include:

- Enhanced Support - Customer Experience Improvement Program (CEIP).
  - Secure, private and transparent approach to keep your data safe.
- Authentication with VMware's My VMware Customer Portal.
  - Securely authenticate your My VMware customer account to register the VMware Skyline Collector appliance
- Customer Entitlement Account validation.
  - Enable an improved support experience when you are entitled to VMware's Technical Support services.

Skyline Collector System Requirements

To install VMware Skyline Collector, ensure 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 1. Hardware Requirements for the Skyline Collector virtual appliance

Number of vCPUs	Memory	Disk Space
2	8 GB	87 GB (15 GB initial if thin provisioned)

Networking Requirements

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

Figure 1. Skyline Collector networking and port requirements
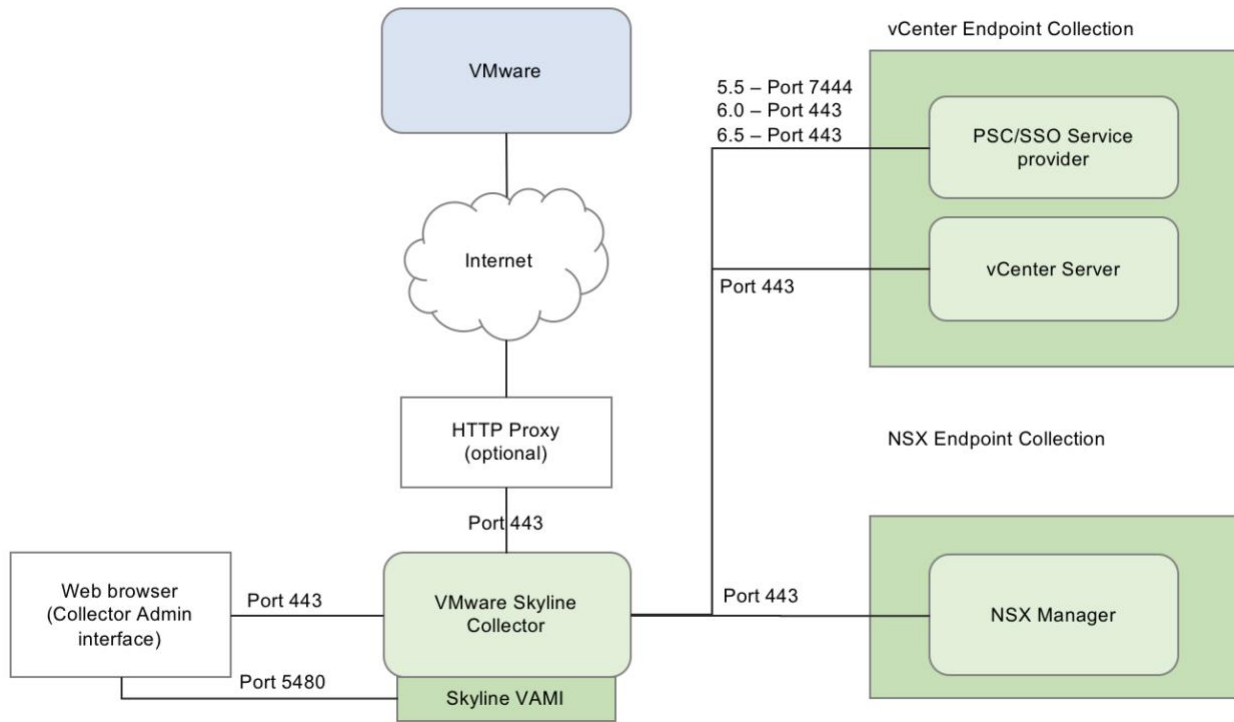
The Skyline Collector needs access to all vCenter Server and NSX Manager collection endpoints within the environment to collect product information data. It also needs access to the Internet to upload data. An HTTP proxy server can be used to proxy connectivity to the Internet, but access to product endpoints must be direct.

Table 2. External Network Connectivity Requirements

Machine	Connection To	Connection Type	Protocol	Port
Skyline Collector	vcsa.vmware.com	HTTPS	TCP/IP	443
Skyline Collector	vapp-updates.vmware.com	HTTPS	TCP/IP	443

Table 3. Internal Network Connectivity Requirements

Machine	Connection To	Connection Type	Protocol	Port
Skyline Collector	vCenter	HTTPS	TCP/IP	443
Skyline Collector	PSC/SSO Service provider 5.5	HTTPS	TCP/IP	7444
Skyline Collector	PSC/SSO Service provider 6.0 / 6.5	HTTPS	TCP/IP	443
Skyline Collector	NSX Manager	HTTPS	TCP/IP	443
Web browser	Skyline Collector admin interface	HTTPS	TCP/IP	443
Web browser	Skyline Collector (VAMI)	HTTPS	TCP/IP	5480

Note The tables contain the default port values and might not match a customized environment.

Typically, vCenter Single Sign-on Administration Services run on the vCenter Server machine. If for scalability or other reasons the services in your environment run on different virtual machines, you must know the connection endpoints (machine and port number) used in your environment.

Skyline User Permissions

Skyline Collector Accounts

admin

The Skyline *admin* account is the primary user account to interact with the Skyline Collector. This account is used to log into the Skyline admin interface, register the application and manage collection endpoints. The password for the *admin* account can be set during the initial install and registration of the collector.

root

The Skyline appliance *root* account should only be used for updating the appliance through the VAMI interface found at https://<Skyline_Collector_Appliance_IP_Address>:5480 when notified of a pending update. The password for the *root* account can be set during the initial import of the virtual appliance.

Using the *root* account to log into the collector via the console should only be done while troubleshooting in coordination with VMware support. Logging on and changing information inside the appliance with the root account is not supported and could result in issues with the appliance.

Endpoint User Permissions

Skyline depends on read-only user access in order to connect to product deployments, gather data and link it together correctly, specific to each deployment.

vCenter Server Permissions

Skyline requires read-only privileges to all functions within vCenter Server, including license data, in order to tie specific product deployments together. For each vCenter Server that Skyline will collect data from, ensure that a user account exists with the follow privileges:

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

    Refer to the documentation specific to your version of vCenter Server to set up an account with these privileges.

NSX Manager Permissions

For NSX Manager, Skyline requires credentials with Auditor (read-only) or similar privileges with access to the API to query information.

If needed, instructions to create a user with API privileges to NSX Manager, please see VMware Knowledge Base Article 2150736.

Refer to the documentation specific to your version of NSX for vSphere to set up an account with these privileges.

Installing the Skyline Collector

VMware Skyline Collector is distributed as a virtual appliance in Open Virtualization Appliance (OVA) format. You can deploy the VMware Skyline Collector appliance using the vSphere 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 VMware Skyline Collector appliance, you can access the VMware Skyline Collector admin interface using a web browser and connecting to the IP address or hostname of the deployed appliance.

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 VMware Skyline Collector appliance

VMware Skyline Collector is distributed as a virtual appliance in OVA format that you can deploy using the vSphere Web Client.

3   Power on the VMware Skyline Collector appliance and Open the Admin Interface

To use the VMware Skyline Collector appliance, you must first power it on and get an IP address for the appliance.

The Skyline Collector must be registered before it can be configured.

Install the Client Integration Plug-In

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 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.

Prerequisites

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

Procedure

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

Table 4. Client Integration Plug-in

Option	Description
vSphere Web Client login page	a. Open a Web browser and type the URL for the vSphere Web Client. b. At the bottom of the vSphere Web Client login page, click Download Client Integration Plug-in. **Note** 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 will display on the vSphere Web Client login page.
OVF deployment wizard	a. Select a host in the inventory and select Actions > Deploy OVF Template. b. Click Download Client Integration Plug-In

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, please see Knowledge Base Article 2130672.

Deploy the VMware Skyline Collector Appliance

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

Procedure

1   Log in to the vSphere Web Client as an administrator.

2   In the vSphere Web Client, select an inventory object that is a valid parent object of a virtual machine such as a datacenter, folder, cluster, resource pool or host.

3   Select **Actions > Deploy OVF Template.** You can access the Actions menu by right-clicking on the selected object (datacenter, 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 appliance and select a datacenter or folder to deploy the virtual appliance. Click **Next**.

6   Select a host, cluster or resource pool for where to run the virtual appliance. 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**.

In the Select Storage for OVF Template step of the wizard, select the disk format to store the virtual machine virtual disks. All of the following disk formats are supported, therefore select the one that best fits your administrative requirements.

Table 5. Disk Provisioning

Option	Description
Thick Provisioned Lazy Zeroed	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.
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 at 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 datastore 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.

1   Select a datastore large enough to accommodate the virtual machine and all associated virtual disks. After selecting a datastore to store the deployed OVF template, click **Next**.

2   Select a network that will provide the appropriate network access as described in the Networking Requirements section. Click **Next**.

3   The VMware Skyline Collector OVA file is set up to allow network customization. Select the IP protocol and then select **Next**.

4   In the Customize template step of the wizard, customize the deployment properties of the virtual appliance. This includes setting a root password and entering networking properties. When finished customizing the template, click **Next**.

   a.   A root password is required. The password must be a minimum of 8 characters long.

   b.   To configure a DHCP IP address, leave all networking properties boxes blank. To configure a Static IP address, enter the information specific to your network. The appliance must be able to resolve the host names for Single Sign-On authentication, vCenter Server and any collection endpoints.

5   Review the configuration data you provided for the virtual appliance. If the configuration is correct, click **Finish** to complete the Deploy OVF Template wizard.

Power on the VMware Skyline Collector Appliance and Open the Admin Interface

To use the VMware Skyline Collector Appliance, you must first power it on and get the IP address for the appliance.

Procedure

1   Log into the vSphere Client as an administrator.

2   Right-click the VMware Skyline Collector virtual appliance and select **Power > Power On**.

3   In the vSphere Client, on the Summary tab of the VMware Skyline Collector appliance, view the IP address of the virtual appliance. You may need to refresh the vSphere Web Client to view the IP address of the virtual appliance after Power On.

4   In a Web browser, go to the IP address of the appliance (https://<Skyline_Collector_Appliance_IP_Address>)

Figure 2. Skyline Collector Admin Interface
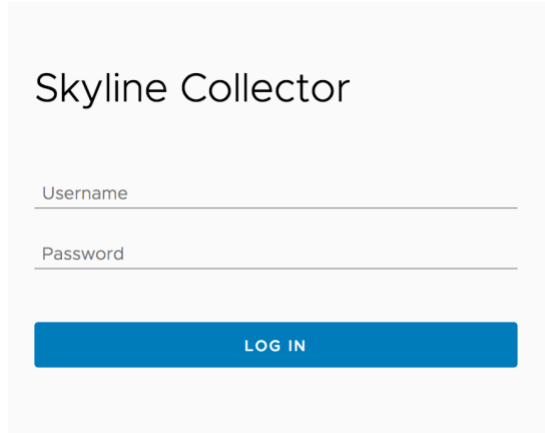
Note Because the collector certificate does not match the hostname/IP for the environment, a browser security warning will appear the first time you connect. This is expected behavior.

Log into the admin interface using the default values below. You will be forced to change this password upon successful first logon.

Table 6. Default Values

Username	admin
Password	default

Change Password

Upon logging-on for the first time, you will be forced to change the *admin* password. The new password must meet the following character requirements:

▪   Minimum length: 8 characters

▪   Ensure string has one uppercase letter

▪   Ensure string has one special character (!@#$&)

▪   Ensure string has one digit

▪   Ensure string has one lowercase letter

Click **Change** after entering a new password for the *admin* account. You must re-login to the Skyline Collector admin interface after changing the password. Select **Login Again** to return to the login screen.

Figure 3. Change password at first logon

You must change your password on first login.

Password Change

Enter old password

Enter new password

Re-enter new password
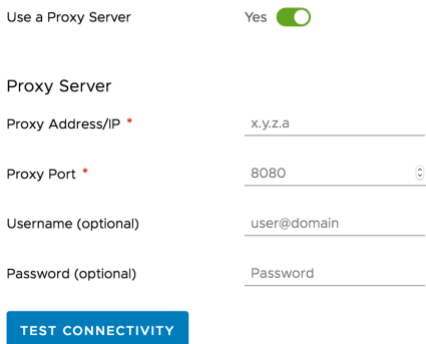
CHANGE

Using the Registration Wizard

On first login, the collector will not be registered. Registration of the collector is required to configure data collection. The registration wizard will appear automatically upon first login.

Proxy Configuration

The collector must upload encrypted data to VMware via the Internet. If the collector requires an HTTP proxy to reach the Internet, toggle the switch to **Yes** and configure the settings required by your proxy administrator. Click **Test Connectivity** to validate the successful proxy configuration, then click **Continue**.

Figure 4. Proxy Configuration

Network Connectivity

Use a Proxy Server   Yes

Proxy Server

Proxy Address/IP *   x.y.z.a

Proxy Port *   8080

Username (optional)   user@domain

Password (optional)   Password

TEST CONNECTIVITY

Customer Experience Improvement Program

Skyline Collector data is subject to acceptance in VMware's Customer Experience Improvement Program (CEIP). Additional information regarding the CEIP can be found at the Trust & Assurance Center.

Select **Agree and Continue**.

Link My VMware Account

Collector registration requires an active My VMware account connected to an active VMware production support or premier services support entitlement. Enter your My VMware Account email, password and Entitlement Account Id.

When ready, select **Link Account**.

Figure 5. Successful My VMware account registration

> ⊘ You have successfully linked your MyVMWare Account.

Once the collector has successfully validated your credentials, click **Continue**. If you have issues with your My VMware account login, please go to https://my.vmware.com to reset your account credentials.

Note Valid support entitlements for VMware Skyline include Production Support, Business Critical Support, Mission Critical Support, Health Care Support and Carrier Grade Support.

Continue Configuration

You are now ready to configure vCenter Server(s) and/or NSX Managers. If you need to request or create appropriate accounts or credentials, you can do so now. You can complete this step at a later time without having to complete the proxy or My VMware registration a second time.

Collector Name

Enter a friendly name for the Skyline Collector. This name will be used to more easily identify the environment you are configuring the Skyline Collector to collect data from. This name will make it easier to reference the Collector when working with VMware support teams.

Click **Update** after entering a friendly name for the Skyline Collector.

Configure vCenter Server (for data collection)

By configuring the Skyline Collector, you are agreeing to join VMware's Enhanced Customer Experience Improvement Program (CEIP).

1   Enter the vCenter Server fully-qualified domain name or IP address.

2   Enter the vCenter Server username and password to be used to connect the Skyline Collector to vCenter Server.

If you are using an external PSC/SSO Service provider, toggle the switch to **Yes** and provide the PSC/SSO fully-qualified domain name or IP address.

Advanced Options (optional)

The Advanced Options for the PSC/SSO Service provider are only needed if you are using a custom configuration. If are using a default PSC/SSO Service provider configuration, you can leave the SSO Admin URL, SSO STS URL and Lookup Service URL blank.

Collect from all Datacenters

If you do not wish to collect data from all Datacenters associated with the vCenter Server being configured, toggle the switch to **No.**

Select **Add.** You may receive an invalid certificate warning for your vCenter Server. Click **Continue** if you would like to continue using an invalid certificate. This will not impact the configuration or data collection of the Skyline Collector.

If you selected **No** for Collect from all Datacenters, you will be presented with the option to choose which datacenters you want to collect data from. Disabling collection from any of the datacenters may prohibit VMware from providing an optimal support experience.

Once you have selected the datacenters you wish to collect data from, click **Enable Selected Datacenters.**

Figure 6. Collect from all datacenters

	Datacenter
☐	RegionA01

1 datacenters

ⓘ Disabling collection from any of the Datacenters may prohibit VMware from providing optimal support experiences.

ENABLE SELECTED DATACENTERS

✓ Successful connection to VC: vcsa-01a.corp.local.
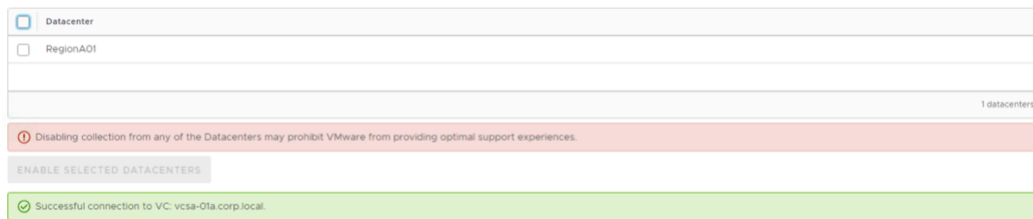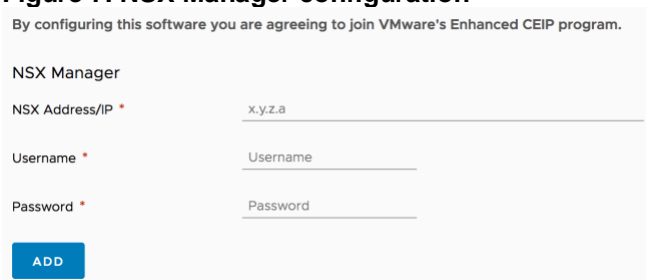
Configure NSX (for data collection) (optional)

By configuring the Skyline Collector, you are agreeing to join VMware's Enhanced Customer Experience Improvement Program (CEIP).

If NSX is deployed within your environment, you may configure the collection for this environment now or you can skip this and configure NSX collection at a later time.

1   Enter the NSX Manager fully qualified name or IP address.

2   Enter the username and password of a user with privileges to connect to NSX Manager APIs and read data.

The NSX Controllers will be automatically discovered by the Skyline Collector. Enter that username and password and click **Add**. Then click **Continue**.

Figure 7. NSX Manager configuration

By configuring this software you are agreeing to join VMware's Enhanced CEIP program.

NSX Manager

NSX Address/IP *   x.y.z.a

Username *   Username

Password *   Password

ADD

Final Step

The Skyline Collector is now registered and connected to your endpoints for data collection. This step allows you to review the endpoints you have added.

You can review your endpoints, modify endpoints or add endpoints within the Skyline Collector Dashboard. Refer to the Skyline Collector User Guide for more information on endpoint management.