

HP Network Visualizer SDN Application — 1.0 Installation Guide

Abstract

This guide describes the steps on how to install the HP Network Visualizer on the HP VAN SDN Controller. The intended audience for this guide is a network operator or an administrator, who is experienced in using the HP VAN SDN Controller.

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Warranty

For the software end user license agreement and the hardware limited warranty information for HP Networking products, visit <http://hp.com/networking/support>.

Open Source Software

For information on licenses for the open source software used by the Network Visualizer, see the *HP VAN SDN Controller Open Source and Third-Party Software License Agreements*.

For information on acquiring the open source code for the Network Visualizer, send an email to HPN-Open-Source-Query@lists.hp.com.

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1 Overview

This guide describes how to install the HP Network Visualizer SDN Application (Network Visualizer) on the HP VAN SDN Controller (controller). Ensure the following before installing the Network Visualizer:

- You have administrator authority on the HP VAN SDN Controller system.
- HP VAN SDN Controller version 2.5 is installed and configured.
- OpenFlow is configured and enabled on the network switches used by the Network Visualizer.

The Network Visualizer provides an easy and flexible solution to obtain a copy of actual network packets for auditing, verification, and troubleshooting purposes. You can get the data copy of network packets from a single device as the source, and a single device as the sink for data packets.

For more information, see the *HP Network Visualizer SDN Application Administrator Guide*.

NOTE: Network Visualizer may not capture all the traffic if installed along with other applications (Network Optimizer or Network Protector).

2 Prerequisites

Ensure the following before installing the Network Visualizer:

- Your environment and planned topology meets the requirements listed in the *HP VAN SDN Controller and Applications Support Matrix*.
- HP VAN SDN Controller is at **version 2.5**.
For information on how to install HP VAN SDN Controller, see the *HP VAN SDN Controller Installation Guide*.
- HP VAN SDN Controller is configured and ready for use.
- You have the authority to install applications on the controller.
- By default, hybrid mode is enabled on the controller. If you have disabled hybrid mode, you must enable hybrid mode on the controller.
For information on how to enable hybrid mode, user management and configuration, see the *HP VAN SDN Controller Administrator Guide*.
- The Network Visualizer supports integration with Microsoft Active directory using LDAP protocol to obtain user groups. Install an SSH server on the Windows system where Active directory is configured. Windows Server 2012, 2012 R2, and Windows 2008 R2 are supported.

NOTE: If Active directory is configured on Windows 2008 R2, ensure Windows Management Framework 4.0 is installed on the system.

- Ubuntu servers that host PCAP repositories must have `curl` and `tshark` (which are part of WireShark distribution) installed.

Downloading the Network Visualizer

You can download the Network Visualizer software from one of the following locations:

- HP SDN App Store
- HP Networking Support Portal

Downloading from HP SDN App Store

To download the application from HP SDN App Store:

1. Launch the App Store from the controller GUI using the option **General**→**Applications**→**Launch App Store**. The HP SDN App Store web site appears.

NOTE: Click **Log in to view applications...** to view the list of purchased applications from the App Store.

Or use a supported browser to open the App Store at <https://hpn.hpwsportal.com>.

2. Log in to the App Store with your HP Web ID.
3. Enter **Network Visualizer** in the search box and click search.
4. Select **Network Visualizer** from the search result and click **Buy Now** to add to cart.
5. Go to the cart, and click **Check Out**.
6. Click **Download** to download the zip file from the App Store.

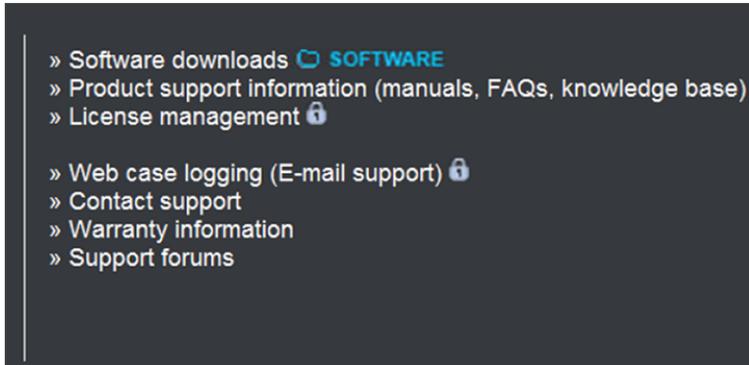
To install the downloaded software package, see “[Installing Network Visualizer](#)” (page 7).

Downloading from support portal

To download the Network Visualizer software from the support portal:

1. Go to the HP Networking support portal www.hp.com/networking/support.
2. Enter the Network Visualizer product number **JL091AAE** in the **Auto Search** field.
3. Select the check box next to the Network Visualizer product, and then click **Display selected**.
4. In the right pane on the product display screen, click **Software downloads**, as shown in [Figure 1](#).

Figure 1 Software downloads pane



5. On the **My Networking Download software screen**, click on **Select** icon to download the Network Visualizer software package.

NOTE: For more information, see the *HP Network Visualizer SDN Application Release Notes* included with the software package.

3 Installing Network Visualizer

This chapter describes how to install and deploy Network Visualizer on the HP VAN SDN Controller. Follow the steps in “Prerequisites” (page 5) before starting the installation.

- ⓘ **IMPORTANT:** Do not install Network Visualizer on a controller that belongs to an HP VAN SDN Controller team. Network Visualizer does not support HP VAN SDN Controller teams.

To install Network Visualizer:

1. Log in to the controller platform as a user with administrator privileges.
2. In the navigation tree, click **General**→**Applications**.
3. Click **New** to open the **New Application** window.

Figure 2 New Application window

New Application

The screenshot shows the 'New Application' window with the following elements:

- A text input field with a **Browse** button to its right.
- A second text input field with an **Upload** button to its right.
- Labels for **Name:**, **Version:**, and **ID:** with corresponding empty text input fields.
- A text input field with a **Deploy** button to its right.
- A **Cancel** button located at the bottom right of the window.

4. Click **Browse**, and then choose the target zip file, containing the Network Visualizer.
5. Click **Upload**.
6. Click **Deploy** to deploy Network Visualizer.

On successful install, the Network Visualizer entry appears in the applications list.

Verify the following to ensure that the installation is successful,:

- The version of the Network Visualizer in the applications list is the same as the target version.
- The state of the Network Visualizer application is **ACTIVE** in the applications list.

4 Post installation

After installing the Network Visualizer, complete the post installation steps.

Table 1 Post installation steps

Step	Description	For additional information
1	Configure your switches.	"Configuring your switches" (page 8)
2	Register your license on the My Networking portal and obtain a license key for the application.	"Installing the license for Network Visualizer" (page 8)
3	Activate the license for Network Visualizer on the controller.	"Activating a license" (page 9)

Configuring your switches

Verify the following when you add a switch to your network:

- At least one HP VAN SDN Controller instance is running.
- OpenFlow is enabled on the switch.

Table 2 Enabling OpenFlow

Switch operating system	See latest version of document on the HP Support Center website (http://www.hp.com/support/manuals)
Comware	Network Visualizer does not support Comware switches.
ProVision	<i>HP Switch Software OpenFlow Administrator's Guide</i>

For more information about HP OpenFlow-enabled switches, see www.hp.com/networking/openflow.

- ⓘ **IMPORTANT:** The hybrid mode setting on the HP VAN SDN Controller overrides the OpenFlow setting on the switch. Do not enable hybrid mode on the OpenFlow switch. For ProVision switches, the OpenFlow setting is passive mode.

Configure SNMP profile for a physical switch. For more information, see the *HP Network Visualizer SDN Application Administrator Guide*.

Set the controller and remote manager on OVS for OpenFlow switches.

Enter one of the following commands to set the remote manager:

```
$sudo ovs-vsctl set-manager tcp:<IP address of controller>:6640
```

```
$sudo ovs-vsctl set-manager tcp:6640
```

Enter the following command to set the controller:

```
$sudo ovs-vsctl set-controller <bridge-name> tcp:<IP address of controller>:6633
```

Installing the license for Network Visualizer

To install the license for Network Visualizer:

1. Register the application license and obtain a license key.
2. Activate the license for the application on the HP VAN SDN Controller.

Registering a license and obtaining a license key

- ❗ **IMPORTANT:** The HP VAN SDN Controller base license (J9863AAE) must be registered in the **My Networking** portal. For information on registering licenses for HP VAN SDN Controller, see the *HP VAN SDN Controller Administrator Guide*.
-

The following information is required to register the license:

- Order number or registration ID.
- Email address listed in your sales order confirmation.
- Install ID of the HP VAN SDN Controller.

To register the application license and obtain a license key:

1. Log on to the **My Networking** portal at <http://www.hp.com/networking/mynetworking>.
2. Select **My Licenses**.
3. Enter your order number or registration ID in the field provided, and then click **Next**.
4. In the **Email** field, enter either the **Ship to** or **Sold to** e-mail address listed in your sales order confirmation, and then click **Next**.
5. Select the license type for your application, enter the quantity to be registered to your Install ID, and then click **Next**.
6. In the Install ID field, enter your Install ID number.
7. (Optional) Enter a friendly name and customer notes for this license.
8. Click **Next**.
The end user software license agreement screen appears.
9. To continue after reading the license agreement, select **I accept all of the above terms**, and then click **Finish**.
10. Review your license registration details, and record the license key listed.
11. (Optional) To download the license key file, click **Save as**, and then save it to your local hard drive.
12. (Optional) To e-mail the registration details:
 - a. Enter one or more e-mail addresses, separated by a comma or semi-colon in the field provided.
 - b. (Optional) Enter Comments about this license.
 - c. Click **Send email**.
13. (Optional) If you want to register additional licenses for this order:
 - a. Click **Register more for this order** to return to the license selection screen.
 - b. Repeat steps 5 through 13 to register all other licenses.

Activating a license

To activate a license on the HP VAN SDN Controller:

1. Copy the license key into the **Add** field in the License GUI.
2. To activate the license, click **Add**.

5 Uninstalling Network Visualizer

To uninstall Network Visualizer:

1. Log in to the controller platform as a user with administrator privileges.
2. In the navigation tree, click **General**→**Applications**.
3. Select **Network Visualizer** from the applications list.
4. Click **Uninstall** to open the **Uninstall Application** window.
5. Verify the detailed information, and click **Uninstall**.
6. Ensure that the application does not appear in the applications list.

6 Migrating a license



IMPORTANT:

- You cannot migrate any data, configuration information and event logs from Network Visualizer.
- You must obtain the Install ID and license uninstall keys for the HP VAN SDN Controller and the license uninstall keys for each of the applications before you start the migration.
For migration requirements for HP VAN SDN Controller, see *HP VAN SDN Controller Installation Guide*.

Table 3 Migrating a license

Step	Description	For more information
1	Deactivate the license for Network Visualizer and copy its uninstall key to a text file outside the directory path of HP VAN SDN Controller.	<i>HP VAN SDN Controller Administrator Guide</i>
2	Uninstall Network Visualizer	“Uninstalling Network Visualizer” (page 10)
3	Copy the Install ID of the HP VAN SDN Controller by right-clicking the install ID (HP VAN SDN Controller → Licenses) and paste it into a text file outside the directory path of HP VAN SDN Controller.	<i>HP VAN SDN Controller Administrator Guide</i>
4	Deactivate the licenses for the HP VAN SDN Controller and copy the uninstall keys to a text file outside the directory path of HP VAN SDN Controller.	<i>HP VAN SDN Controller Administrator Guide</i>
5	Uninstall the HP VAN SDN Controller.	<i>HP VAN SDN Controller Installation Guide</i>
6	Install the HP VAN SDN Controller on the target computer.	<i>HP VAN SDN Controller Installation Guide</i>
7	Install the license for the HP VAN SDN Controller.	<i>HP VAN SDN Controller Administrator Guide</i>
8	Install Network Visualizer on the target computer.	<ul style="list-style-type: none">• “Prerequisites” (page 5)• “Installing Network Visualizer” (page 7)
9	Install the license for Network Visualizer.	<i>HP VAN SDN Controller Administrator Guide</i>
10	Configure Network Visualizer on the target computer.	<i>HP Network Visualizer SDN Application Administrator Guide</i>

7 Troubleshooting

Destination is not in connected state

To resolve the problem, ensure that `curl` and `tshark` are installed on the controller system.

Select the destination with IP address of the controller system in the Destinations panel. Deploy the destination by clicking Deploy. Click Refresh to verify the destination state is connected.

8 Support and other resources

To learn how to contact HP, obtain software updates, submit feedback on documentation, and locate links to HP SDN websites and other related HP products, see the following topics.

Gather information before contacting an authorized support representative

If you need to contact an authorized HP support representative, be sure to have the following information available:

- If you have a Care Pack or other support contract, either your SAID (Service Agreement Identifier) or other proof of purchase of support for the controller and any HP SDN applications
- The HP VAN SDN Controller version and installed licenses
- The HP SDN application product names, versions, and installed licenses
- If you use a virtual machine for the operating system, the hypervisor virtualization platform and version
- Messages generated by the controller and applications
- Other HP or third-party software in use

How to contact HP

- See the Contact HP Worldwide website to obtain contact information for any country:
<http://www.hp.com/go/assistance>
- See the contact information provided on the HP Support Center website:
<http://www.hp.com/go/hpsc>
- In the United States, call +1 800 334 5144 to contact HP by telephone. This service is available 24 hours a day, 7 days a week. For continuous quality improvement, conversations might be recorded or monitored.

Get connected to the HP SDN online user forum

The HP SDN community forum interactive online forum enables you to share your experiences and to ask and to answer questions related to using the HP VAN SDN Controller and SDN applications.

To join the discussion, see:

<http://www.hp.com/networking/sdnforum>

Software technical support and software updates

HP provides 90 days of limited technical support with the purchase of a base license for the HP VAN SDN Controller.

Some HP SDN applications have a trial period, during which limited technical support is provided for 90 days. Other HP SDN applications do not have a trial period and you must purchase a base license for the application to receive 90 days of limited support. Support for the controller and each HP SDN application is purchased separately, but you must have a base license for the controller to receive support for your licensed HP SDN application.

- For information about licenses for the controller, see the *HP VAN SDN Controller Administrator Guide*.
- For information about licenses for HP SDN applications, see the information about licensing in the administrator guide for the application.

Care Packs

To supplement the technical support provided with the purchase of a license, HP offers a wide variety of Care Packs that provide full technical support at 9x5 or 24x7 availability with annual or multi-year options. To purchase a Care Pack for an HP SDN application, you must have a license for that application and a license for the controller.

For a list of Care Packs available for the controller and HP SDN applications, see:

<http://www.hp.com/go/cpc>

Enter the SDN license product number to see a list of Care Packs offered.

Once registered, you receive a service contract in the mail containing the customer service phone number and your SAID. You need the SAID when you phone for technical support.

To obtain full technical support prior to receiving the service contract in the mail, please call Technical Support with the proof of purchase of the Care Pack.

Obtaining software updates

The software for the HP VAN SDN Controller and HP SDN applications can be downloaded for free from the HP Networking support lookup tool:

<http://www.hp.com/networking/support>

This website also provides links for manuals, electronic case submission, and other support functions.

Warranty

For the software end user license agreement and warranty information for HP Networking products, see <http://www.hp.com/networking/support>.

Related information

Documentation

- HP SDN information library:
<http://www.hp.com/go/sdn/infolib>

Product websites

- HP Software-Defined Networking website:
 - Primary website:
<http://www.hp.com/go/sdn>
 - HP SDN App Store:
<http://hp.com/sdn/AppStore>
 - HP SDN Dev Center website:
<http://sdndevcenter.hp.com>
 - HP SDN community discussion forum
<http://www.hp.com/networking/sdnforum>
- HP Open Source Download Site:
<http://www.hp.com/software/opensource>
- HP Networking services website:
<http://www.hp.com/networking/services>

9 Documentation feedback

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