

# HP Network Virtualization for LoadRunner and Performance Center

Software Version: 12.50

## **Installation Guide**

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## Chapter 1: Network Virtualization Installation

The installation process includes these steps:



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## System requirements

To install **HP Network Virtualization for LoadRunner and Performance Center** components, the appropriate LoadRunner or Performance Center version, 12.50 or later, must be installed.

System requirements for running HP Network Virtualization components are the same as system requirements for LoadRunner or Performance Center, unless otherwise specified below.

The minimum requirements for running HP NV components on HP Load Generator are as follows:

Processor	Quad core processor or higher	
Memory (RAM) 4 GB RAM or more		
HP Load Generator HP Load Generator for LoadRunner or Performance Center 12.50		

#### Third-party components

The following third-party components are prerequisites for HP Network Virtualization.

- Java Runtime Environment (JRE) 6.0 update 24 (32-bit) or later
- Microsoft .NET Framework 4.0 Full or later

If a minimum required version is not already installed on the host, the LoadRunner full, the standalone Load Generator, or VuGen installations install the prerequisites.

The Performance Center Server installation does not install the NV prerequisites. If the minimum required versions are not already installed on the host machine, the following versions are installed during installation of the NV for Performance Center component.

- Java Runtime Environment (JRE) 8.0 update 45
- Microsoft .NET Framework 4.5.2 Full

### Install HP Network Virtualization

To gain access to the HP Network Virtualization (NV) functionality in either LoadRunner or Performance Center, you must install the NV components.

**NV upgrade:** If a previous version of HP Network Virtualization is installed on the machine, you must uninstall all NV components before you can install NV 12.50.

To retain results from your current version of NV, during the uninstallation select the option to save existing data.

To uninstall: From the **Control Panel > Programs and Features**, right-click the HP NV component and click **Uninstall**.

At the end of LoadRunner or Performance Center installation wizards, you are prompted to install Network Virtualization. You can continue with the NV installation, or choose to install manually at a later time.

If you choose to install NV components, follow the on-screen instructions. You can select one of the following installation modes:

- Typical. Installs the component with default options.
- Custom. Enables you to configure several options before installation. For details, see "Setup wizard options" on the next page.

The following components are installed:

NV component name	Installed with:
HP NV for Controller	LoadRunner full installation Performance Center Host installation
HP NV for Performance Center Server	Performance Center Server installation
HP NV for Load Generator	Load Generator (standalone) installation LoadRunner full installation Performance Center Host installation VuGen installation

#### **Manual installation**

If you did not install the NV components as part of the LoadRunner or Performance Center installations, you can run the NV installations manually at any time.

**Prerequisite:** The appropriate LoadRunner or Performance Center components, version 12.50 or later, must be installed before you can install the NV components.

The installation files are located in the following folders:

- LoadRunner: <LoadRunner installation DVD>\Additional Components\HP NV\
- Performance Center: <Performance Center installation DVD>\AdditionalComponents\HPNV\

Run the installation files, according to your needs:

For this LoadRunner or Performance Center component	You need to install this NV component	NV installation file
LoadRunner full installation	NV for Controller NV for Load Generator	NV4HPControllerSetup.exe NV4HPLGSetup.exe
Load Generator (standalone)	NV for Load Generator	NV4HPLGSetup.exe
VuGen	NV for Load Generator (The NV for Load Generator component is required because it contains NV Analytics reports, which are integrated with VuGen.)	NV4HPLGSetup.exe
Performance Center Server	NV for Performance Center Server	NV4HPPCSetup.exe
Performance Center Host	NV for Controller NV for Load Generator	NV4HPControllerSetup.exe NV4HPLGSetup.exe

**Note:** You must restart the machine after installation or uninstallation of the **NV for Load Generator** component.

#### Setup wizard options

If you have chosen to run a custom installation during the setup wizard, or are installing the NV components manually, you can configure several options. Some options are enabled when installing the first NV component on a machine only.

Option	NV component	
Destination Folder	Enter a location on the file system to install the component, or accept the default location: C:\Program Files (x86)\HP\NV.	
Data Folder	Stores temporary internal application data and user data, such as test run results. By default, C:\Data.	
Server Port	The port that will be used for communication between various NV components. There is typically no need to change this value from the default of 8182. If you select to <b>Enable Remote Connections</b> , NV will add an exception to the Windows Firewall, enabling remote access to web-based NV components, using the specified server port.	
Enable Remote Connections	Adds an exception to Windows Firewall. This is required for accessing NV statistics and NV Network Editor from remote machines, or to access the NV License Manager remotely.	

#### More NV applications

You can install the following optional HP Network Virtualization components on any machine that meets the system requirements. For installation file locations, see "Manual installation" on the previous page.

NV application	Description	NV installation file	
HP NV Analytics	Provides in-depth analysis of your application's performance, based on test results from tests that use NV functionality. Helps to identify factors that negatively impact your application's performance.	Analytics_setup.exe	
	<b>Note:</b> NV Analytics reports are a part of Network Virtualization. If you have installed NV on your VuGen machine, you can view the NV Analytics reports directly in VuGen, without the need to install this standalone NV Analytics version.  If you are already using the standalone version of NV Analytics, you can install the updated 12.50 version, included with the NV installation files.		
HP NV Predictor	Analyzes test results from HP LoadRunner, and generates automated reports for SLO (service level objective) compliance. Evaluates results of one or more key metrics for SLO compliance by virtual location based on static values and/or baseline performance. The customizable reports produce a comprehensive analysis of application performance by virtual location.	NVPredictorSetup.exe	

#### **Installation logs**

Installation logs are located under C:\HP Log. Log files are named as follows:

<Product name>\_<date>\_<time>.log

#### For example:

HP NV for Load Generator\_6-4-2015\_15-29-27.log

HP NV for Controller\_6-4-2015\_15-37-38.log

## Silent installation of HP Network Virtualization

You can silently install the HP NV components for LoadRunner and Performance Center.

#### Note:

 During a silent installation of HP LoadRunner or HP Performance Center, the appropriate NV components are installed by default. For more information, refer to the LoadRunner or Performance Center documentation.

#### Consider before you begin:

- When performing a silent installation of NV LoadRunner for Controller, you must be logged in as an Administrator.
- Make sure that all system requirements are met before beginning the installation. For details, see "System requirements" on page 6.
- You will not be notified if the silent installation fails. The installation log is located under C:\HP Logs. Log files are named as follows:

```
<Product name>_<date>_<time>.log
For example:

HP NV for Load Generator_6-4-2015_15-29-27.log
HP NV for Controller_6-4-2015_15-37-38.log
```

The installation files are located in the following folders:

- LoadRunner: <LoadRunner installation DVD>\Additional Components\HP NV\
- Performance Center: <Performance Center installation DVD>\AdditionalComponents\HPNV\

For this LoadRunner or Performance Center component	You need to install this NV component	NV installation file
LoadRunner full installation	NV for Controller NV for Load Generator	NV4HPControllerSetup.exe NV4HPLGSetup.exe
Load Generator (standalone)	NV for Load Generator	NV4HPLGSetup.exe
VuGen	NV for Load Generator (The NV for Load Generator component is required because it contains NV Analytics reports, which are integrated with VuGen.)	NV4HPLGSetup.exe
Performance Center Server	NV for Performance Center Server	NV4HPPCSetup.exe
Performance Center Host	NV for Controller NV for Load Generator	NV4HPControllerSetup.exe NV4HPLGSetup.exe

**Note:** You must restart the machine after installation or uninstallation of the **NV for Load Generator** component.

See below for detailed installation instructions:

#### Silently install NV for Controller

 Copy the NV4HPControllerSetup.exe file to a convenient location on the LoadRunner or Performance Center Host machine.

- Run a command prompt with elevated privileges. From the Windows Start menu, click AII
   Programs > Accessories, right-click Command Prompt, and then click Run as administrator
- 3. In the Command Prompt window, navigate to the location of the file copied in step 1, and enter the following command together with the required command line options:

NV4HPControllerSetup.exe /s /v"/qn <command\_line\_options>"

#### Command line options:

Option	Description	Required/Optional	Default value
PORT= <port number=""></port>	The port used to connect to NV for Controller.	REQUIRED	8182
INSTALLDIR=\" <path folder="" installation="" to="">\"</path>	The location where the application files will be installed.	OPTIONAL	<pre>C:\Program Files (x86)\HP\NV</pre>
ENABLE_ REMOTE= <true  <br="">FALSE&gt;</true>	Opens the port in the firewall. Required for enabling remote access to web-based NV components.	OPTIONAL	TRUE
REBOOT_IF_ NEED= <true  <br="">FALSE&gt;</true>	If a reboot is required, automatically reboots the computer after installation completes.	OPTIONAL	FALSE
	<b>Note:</b> Even if the FALSE value is used, you will need to reboot the machine before NV for Controller is operational.		
DATA_ FOLDER=" <path to<br="">data dir&gt;"</path>	The location where temporary internal application data and user data is saved.	OPTIONAL	C:\%ProgramData%\HP\NV

#### Example:

NV4HPControllerSetup.exe /s /v"/qn PORT=8182"

#### Silently install NV for Performance Center

- 1. Copy the NV4HPPCSetup.exe file to a convenient location on the Performance Center Server machine.
- Run a command prompt with elevated privileges. From the Windows Start menu, click All Programs > Accessories, right-click Command Prompt, and then click Run as administrator
- 3. In the Command Prompt window, navigate to the location of the file copied in step 1, and enter the following command together with the required command line options:

NV4HPPCSetup.exe /s /v"/qn <command\_line\_options>"

Command line options:

Option	Description	Required/Optional	Default value
PORT= <port number=""></port>	The port used to connect to NV for Performance Center.	REQUIRED	8182
INSTALLDIR=\" <path folder="" installation="" to="">\"</path>	The location where the application files will be installed.	OPTIONAL	C:\Program Files (x86)\HP\NV
ENABLE_ REMOTE= <true  <br="">FALSE&gt;</true>	Opens the port in the firewall. Required for enabling remote access to web-based NV components.	OPTIONAL	TRUE
REBOOT_IF_ NEED= <true  <br="">FALSE&gt;</true>	If a reboot is required, automatically reboots the computer after installation completes.	OPTIONAL	FALSE
	<b>Note:</b> Even if the FALSE value is used, you will need to reboot the machine before NV for Performance Center is operational.		
DATA FOLDER=" <path to<br="">data dir&gt;"</path>	The location where temporary internal application data and user data is saved.	OPTIONAL	C:\%ProgramData%\HP\NV

#### Example:

NV4HPPCSetup.exe /s /v"/qn PORT=8182"

#### Silently install NV for Load Generator

- 1. Copy the NV4HPLGSetup. exe file to a convenient location on the Load Generator machine.
- Run a command prompt with elevated privileges. From the Windows Start menu, click AII
   Programs > Accessories, right-click Command Prompt, and then click Run as administrator
- 3. In the Command Prompt window, navigate to the location of the file copied in step 1, and enter the following command together with the required command line options:

NV4HPLGSetup.exe /s /v"/qn <command\_line\_options>"

#### Command line options:

Option	Description	Required/Optional	Default value
PORT= <port number=""></port>	The port used to connect to NV for Load Generator.	REQUIRED	8182
INSTALLDIR=\" <path folder="" installation="" to="">\"</path>	The location where the application files will be installed.	OPTIONAL	C:\Program Files (x86)\HP\NV
ENABLE_ REMOTE= <true  <br="">FALSE&gt;</true>	Opens the port in the firewall. Required for remote access to the NV statistics and the NV Network Editor.	OPTIONAL	TRUE
REBOOT_IF_ NEED= <true  <br="">FALSE&gt;</true>	If a reboot is required, automatically reboots the computer after installation completes.	OPTIONAL	FALSE

Option	Description	Required/Optional	Default value
	Note: Even if the FALSE value is used, you will need to reboot the machine before NV for Load Generator is operational.		
DATA FOLDER=" <path to<br="">data dir&gt;"</path>	The location where temporary internal application data and user data is saved.	OPTIONAL	C:\%ProgramData%\HP\NV

#### Example:

NV4HPLGSetup.exe /s /v"/qn PORT=8182"

## Silently uninstall HP Network Virtualization

To uninstall NV 12.50 silently, you must be logged in as administrator.

At the command line, enter the command for the component you want to uninstall:

NV component	Uninstall command	
NV for Controller	NV4HPControllerSetup.exe /s /removeonly /v"/qn PORT= <port number=""> REBOOT_IF_NEED=<true false=""  ="">" PORT-optional; removes the port from the firewall</true></port>	
NV for Performance Center	NV4HPPCSetup.exe /s /removeonly /v"/qn PORT= <port number=""> REBOOT_ IF_NEED=<true false=""  ="">" PORT - optional; removes the port from the firewall</true></port>	
NV for Load Generator	NV4HPLGSetup.exe /s /removeonly /v"/qn PORT= <port number=""> REBOOT_ IF_NEED=<true false=""  ="">" PORT-optional; removes the port from the firewall</true></port>	

**Note:** You must restart the machine after installation or uninstallation of the **NV for Load Generator** component.

## Post-installation tasks

After installing NV components, you need to:

- · install licenses
- · configure the active adapter
- optionally configure addition NV customization

For details, see the relevant sections of the HP Network Virtualization for LoadRunner and Performance Center User Guide.

## Chapter 2: NV Analytics Installation

## System Requirements

The minimum requirements for NV Analytics are as follows:

Processor	Quad core 2.5 GHz or stronger
Processor	Quad core 2.3 Grizor stronger
Memory	4 GB RAM
Hard Disk	1 GB of free disk space
Desktop Operating System	<ul> <li>Windows Server 2008 R2 SP1 (64 bit)</li> <li>Windows 7 SP1 (32/64 bit)</li> <li>Windows Server 2012 R2</li> <li>Windows 8.1 (64 bit)</li> </ul>
Browsers	<ul><li>Internet Explorer 9.0 and higher</li><li>Firefox</li><li>Chrome</li><li>Safari</li></ul>
Microsoft Office (for exporting reports)	<ul><li>Office 2007</li><li>Office 2010</li><li>Office 2013</li></ul>

## Install NV Analytics

**Note:** NV Analytics reports are a part of Network Virtualization. If you have installed NV on your VuGen machine, you can view the NV Analytics reports directly in VuGen, without the need to install the standalone NV Analytics version.

If you are already using the standalone version of NV Analytics, you can install the updated 12.50 version, included with the NV installation files.

#### **Software Prerequisites**

Wireshark version 1.10.8 or later must be installed prior to installation of NV Analytics.

The following will be installed during installation if not present:

- Java Runtime Environment 8.0 update 45 (32-bit) will be installed if none of the following are present:
  - JRE 6.0 update 24 or later (32-bit)
  - JRE 7.0 (32-bit)
  - JRE 8.0 (32-bit)
- Microsoft .NET Framework 4.5.2 Full
- Microsoft Silverlight 5.1.30514

#### **Installing Software**

To install NV Analytics, run the Analytics setup file **Analytics\_setup.exe** (as an administrator), click **Install**, and follow the on-line directions.

**Upgrading NV Analytics:** When you run the installation, the installer checks if there is a previous version of NV Analytics installed. Depending on the version you have installed, the installer does one of the following:

- Uninstalls the previous version and then continues the installation.
- Prompts you to first uninstall the previous version and then run the installation again.

After installing NV Analytics, you must reboot the computer.

After installation, access NV Analytics from the Windows Start menu: All Programs > HP Software > HP Network Virtualization > NV Analytics > NV Analytics.

In Windows 8.x or higher, you can access NV Analytics directly from the **Start** or **Apps** screen.

#### **Silent Installation**

Note: If Wireshark is not installed prior to installation of NV Analytics, installation will abort.

#### To silently install NV Analytics:

- 1. Copy the NV Analytics setup file from the installation package to a convenient location.
- 2. From the Windows Start menu, click **All Programs > Accessories**, right-click **Command Prompt**, and then click **Run as administrator**.
- 3. In the Command window, navigate to the location of the file copied in step 1, and enter the following command together with the required command line options:

Analytics setup.exe/s/v"/qn command line options"

**Command line options** [\* indicates a mandatory command line option]:

PORT=<port number>

The port used to connect to NV Analytics.

If another Network Virtualization component is already installed, NV Analytics will use the same port.

ENABLE REMOTE=TRUE | FALSE

Opens the port in the firewall.

Default is TRUE.

DATA FOLDER=\"<path to data folder>\"

The location where internal application data and user data is saved.

Default is <Common App Data folder>\HP\NV (C:\ProgramData\HP\NV in Win 7).

INSTALLDIR=\"<path to installation folder>\"

The location where the application files will be installed.

Default is C:\Program Files (x86)\HP\NV\

• REBOOT IF NEED=TRUE|FALSE

If a reboot is needed, automatically reboots the computer after installation completes.

Default is TRUE.

#### Silent Uninstallation

#### To silently uninstall NV Analytics:

- 1. Copy the file Analytics\_setup.exe setup file from the installation package to a convenient location.
- 2. From the Windows Start menu, click **All Programs > Accessories**, right-click **Command Prompt**, and then click **Run as administrator**.
- 3. In the Command Prompt window, navigate to the location of the file copied in step 1, and enter the following command together with the required command line options:

Analytics\_setup.exe /s /removeonly /v"/qn command\_line\_options"

Command line options [All the command line options are optional]:

- REBOOT\_IF\_NEED=TRUE | FALSE
   If a reboot is needed, automatically reboots the computer after uninstall completes.
   Default is TRUE.
- FORCE\_REBOOT=TRUE | FALSE

Automatically reboots the computer after uninstall completes, whether or not a reboot is needed.

Default is FALSE.

DELETE\_DATA=TRUE | FALSE
 Deletes all stored NV Analytics data.

Default is FALSE.

#### Installation log files

Installation logs are located under C:\HP Log. Log files are named as follows:

```
<Product name>_<date>_<time>.log
```

#### For example:

HP NV for Load Generator\_6-4-2015\_15-29-27.log HP NV for Controller 6-4-2015 15-37-38.log

## Chapter 3: NV Predictor Installation

## Install NV Predictor

NV Predictor can be installed on the HP LoadRunner Controller computer, HP Performance Center computer, or on any other computer on which HP LoadRunner Analysis is installed.

**Note:** NV Predictor does not support LoadRunner Controller or LoadRunner Analysis installed with a language pack other than English.

#### System Requirements

Before installing NV Predictor, make sure that the target computer meets the following minimum requirements:

Memory:	1 GB RAM (recommended)	
Operating System:	Supported operating system for the HP LoadRunner or HP Performance Center machine.	
Virtual Machine:	VMware Workstation 6.0 or later (recommended)	
	VMware ESX 3.0 or later (supported)	

#### **Prerequisites**

#### On the HP LoadRunner Controller:

- HP LoadRunner Controller 12.50
- HP NV for Controller 12.50
- Microsoft Office 2007, 2010, or 2013 (Word and Excel)

#### On the HP Performance Center Host:

- HP Performance Center 12.50
- HP NV for Controller 12.50
- Microsoft Office 2007, 2010, or 2013 (Word and Excel)

#### On an HP LoadRunner Analysis host:

- HP LoadRunner Analysis 12.50
- Microsoft Office 2007, 2010, or 2013 (Word and Excel)

#### Installing NV Predictor

Run the **NVPredictorSetup.exe** file as an administrator, and follow the instructions in the online setup wizard.

#### **Uninstalling NV Predictor**

In the Microsoft Windows Control Panel, click **Uninstall a program**, select **NV Predictor**, and then click **Uninstall**.

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