



Managing the FabricPath Feature Set

This chapter describes how to install and configure the FabricPath feature set on Cisco NX-OS devices.

- [Information About the FabricPath Feature Set, page 1](#)
- [Licensing Requirements for the FabricPath Feature Set, page 1](#)
- [FabricPath Feature Set Guidelines and Limitations, page 2](#)
- [Default Settings for the FabricPath Feature Set, page 2](#)
- [Managing the FabricPath Feature Set, page 2](#)
- [Verifying Feature Sets, page 7](#)
- [Configuration Example for the FabricPath Feature Set, page 7](#)
- [Additional References, page 7](#)

Information About the FabricPath Feature Set

The Cisco Nexus 7000 Series device supports a large number of features that can be enabled at run time, often dependent on the licenses available on the device. Certain complex features cannot be dynamically loaded or unloaded. In earlier releases of Cisco NX-OS, these features were loaded at boot-time regardless if the feature was configured or actively being used on the device, which created problems since system resources (specifically, memory and CPU) were being consumed. There were also undesirable traces of the feature such as running services, binaries and libraries on the filesystem, configuration commands, device drivers, messaging opcodes, and other elements.

Feature sets were created to address these issues. A feature set is a collection of components that perform a specific set of functions.

You must install and enable the FabricPath feature set before you can configure the components that make up the feature set. See *Cisco Nexus 7000 Series NX-OS FabricPath Configuration Guide, Release 5.x* for configuration instructions.

Licensing Requirements for the FabricPath Feature Set

The following table shows the licensing requirements for the FabricPath feature set:

Product	License Requirement
Cisco NX-OS	FabricPath requires the Enhanced Layer 2 license. For an explanation of the licensing scheme, see the <i>Cisco NX-OS Licensing Guide</i> .

FabricPath Feature Set Guidelines and Limitations

The FabricPath feature set has the following guidelines and limitations:

- You must install the Enhanced Layer 2 license before you can install and configure the FabricPath feature set.
- You must install the FabricPath feature set in the default VDC before you can enable the feature set in any VDC (including the default VDC).
- The FabricPath feature set operation may cause the standby supervisor to reload if it is in an unstable state, such as following a service failure or powering up. You can check whether the standby supervisor is stable with the **show modules** command. When the standby supervisor is stable, it is indicated as "ha-standby".

Default Settings for the FabricPath Feature Set

This table lists the default settings for the FabricPath feature set parameters.

Table 1: Default the FabricPath Feature Set Parameter Settings

Parameters	Default
feature-set command	Disabled

Managing the FabricPath Feature Set

Follow these steps to manage the FabricPath feature set:

Procedure

-
- Step 1** [Installing The FabricPath Feature Set, page 3](#)
- Step 2** (Optional) [Uninstalling the FabricPath Feature Set, page 3](#)
- Step 3** [Enabling the FabricPath Feature Set, page 4](#)
- Step 4** (Optional) [Disallowing the FabricPath Feature Set in a VDC, page 5](#)
-

Installing The FabricPath Feature Set

You must install the FabricPath feature set in the default VDC.

Before You Begin

Ensure that you are in the default VDC.

Procedure

	Command or Action	Purpose
Step 1	configure terminal Example: switch# configure terminal switch(config)#	Enters configuration mode.
Step 2	install feature-set fabricpath Example: switch(config)# install feature-set fabricpath	Installs the FabricPath feature set in the default VDC.
Step 3	exit Example: switch(config)# exit switch#	Exits configuration mode.

Uninstalling the FabricPath Feature Set

You can uninstall the FabricPath feature set.

Before You Begin

The FabricPath feature set must be installed in the default VDC.

The FabricPath feature set must not be enabled in any VDC.

Procedure

	Command or Action	Purpose
Step 1	configure terminal Example: switch# configure terminal switch(config)#	Enters configuration mode.

	Command or Action	Purpose
Step 2	no install feature-set fabricpath Example: <pre>switch(config)# no install feature-set fabricpath</pre>	Uninstalls the FabricPath feature set. You cannot uninstall the feature set if it is enabled in any VDC.
Step 3	exit Example: <pre>switch(config)# exit switch#</pre>	Exits configuration mode.

Enabling the FabricPath Feature Set

You can enable the installed FabricPath feature set in any VDC on the device.

Before You Begin

Ensure that you have installed the FabricPath feature set in the default VDC.

Ensure that you are in the correct VDC or use the **switchto vdc** command.

Procedure

	Command or Action	Purpose
Step 1	configure terminal Example: <pre>switch# configure terminal switch(config)#</pre>	Enters configuration mode.
Step 2	feature-set fabricpath Example: <pre>switch(config)# feature-set fabricpath</pre>	Enables the FabricPath feature set. The feature set must be installed before it shows as an option to this command.
Step 3	exit Example: <pre>switch(config)# exit switch#</pre>	Exits configuration mode.

Disabling the FabricPath Feature Set

You can disable the FabricPath feature set.

Before You Begin

Ensure that you have installed the FabricPath feature set in the default VDC.

Ensure that you are in the correct VDC or use the **switchto vdc** command.

Procedure

	Command or Action	Purpose
Step 1	configure terminal Example: <pre>switch# configure terminal switch(config)#</pre>	Enters configuration mode.
Step 2	no feature-set fabricpath Example: <pre>switch(config)# no feature-set fabricpath</pre>	Disables the FabricPath feature set. Note The no feature-set fabricpath command may take some time to complete if the size of the configuration is very large. The command must clean up all of the configurations associated with the FabricPath feature set.
Step 3	exit Example: <pre>switch(config)# exit switch#</pre>	Exits configuration mode.

Disallowing the FabricPath Feature Set in a VDC

By default, when you install the FabricPath feature set, it is allowed in all VDCs. You can disallow the installed FabricPath feature set in a VDC on the device.

Before You Begin

Ensure that you installed the FabricPath feature set in the default VDC.

Ensure that you have not enabled the FabricPath feature set in the specified VDC.

Procedure

	Command or Action	Purpose
Step 1	configure terminal Example: <pre>switch# configure terminal switch(config)#</pre>	Enters configuration mode.
Step 2	vdc vdc_ID Example: <pre>switch(config)# vdc 1</pre>	Specifies a VDC and enters VDC configuration mode.

	Command or Action	Purpose
Step 3	no allow feature-set fabricpath Example: <pre>switch(config-vdc)# no allow feature-set fabricpath</pre>	Disallows the FabricPath feature set in the VDC. You cannot disallow the FabricPath feature set if it is enabled in the specified VDC.
Step 4	end Example: <pre>switch(config-vdc)# end switch#</pre>	Exits VDC configuration mode and returns to EXEC mode.

Allowing the FabricPath Feature Set in a VDC

By default, the installed FabricPath feature set is allowed in all VDCs on the device. You can disallow the installed FabricPath feature set in a specific VDC. Subsequently, you can allow that disallowed FabricPath feature set in the VDC.

Before You Begin

Ensure that you have installed the FabricPath feature set in the default VDC.

Procedure

	Command or Action	Purpose
Step 1	configure terminal Example: <pre>switch# configure terminal switch(config)#</pre>	Enters configuration mode.
Step 2	vdc vdc_ID Example: <pre>switch(config)# vdc 1</pre>	Specifies a VDC and enters VDC configuration mode.
Step 3	allow feature-set fabricpath Example: <pre>switch(config-vdc)# allow feature-set fabricpath</pre>	Allows the FabricPath feature set in the VDC.
Step 4	end Example: <pre>switch(config-vdc)# end switch#</pre>	Exits VDC configuration mode and returns to EXEC mode.

Verifying Feature Sets

To display information about the configured feature sets including the FabricPath feature set, perform the following task:

Command	Description
show feature-set	Displays the status of the feature sets on the device.

Configuration Example for the FabricPath Feature Set

The following example shows how to install the FabricPath feature set on the device and then switch to a VDC and enable the feature set in that VDC:

```
switch# configure terminal
switch(config)# install feature-set fabricpath
switch(config)# exit
switch# switchto vdc vdc1
switch-vdc1# configure terminal
switch-vdc1(config)# feature-set fabricpath
switch-vdc1(config)# switchback
switch#
```



Note

Instead of the **switchto** command, you can use the **ssh** command to connect to the management port of the VDC.

The following example shows how to install the FabricPath feature set in the default VDC on the device:

```
switch# configure terminal
switch(config)# install feature-set fabricpath
switch(config)# feature-set fabricpath
switch(config)# exit
switch#
```

The following example shows how to display the status of the feature sets on the device:

```
switch# show feature-set
Feature Set Name      ID      State
-----
fabricpath            2       enabled
fex                   3       disabled
switch#
```

The following example shows how to display the services used by the FabricPath feature set:

```
switch# show feature-set services fabricpath
u2rib
drap
isis_l2mp
3 services in feature set fabricpath
switch#
```

Additional References

This section includes additional information that is related to the FabricPath feature set commands.

Related Documents

Related Topic	Document Title
Cisco NX-OS Licensing	<i>Cisco NX-OS Licensing Guide</i>
FabricPath	<i>Cisco Nexus 7000 Series NX-OS FabricPath Configuration Guide, Release 5.x</i>
Virtual device contexts (VDC)	<i>Cisco Nexus 7000 Series NX-OS Virtual Device Context Configuration Guide, Release 5.x</i>
Command reference	<i>Cisco Nexus 7000 Series NX-OS Fundamentals Command Reference, Release 5.x</i>

Feature History for FabricPath Feature Set

This table lists the release history for this feature.

Table 2: Feature History for FabricPath Feature Set

Feature Name	Releases	Feature Information
Feature set commands	5.1(1)	Added the install feature-set , allow feature-set , and feature-set commands.