



Send comments to nexus5k-docfeedback@cisco.com



Cisco Nexus 5000 Series NX-OS FabricPath Command Reference

Cisco NX-OS Release 5.x

First Published: October 2008

Last Updated: July 2012

Americas Headquarters

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
<http://www.cisco.com>
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 527-0883

Text Part Number: OL-25831-01

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The Cisco implementation of TCP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCB's public domain version of the UNIX operating system. All rights reserved. Copyright © 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: www.cisco.com/go/trademarks. Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

Cisco Nexus 5000 Series NX-OS FabricPath Command Reference
© 2012 Cisco Systems, Inc. All rights reserved.

Send comments to nexus5k-docfeedback@cisco.com



CONTENTS

Preface	vii
Audience	vii
Supported Switches	vii
Cisco Nexus 5500 Platform Switches	vii
Organization	viii
Document Conventions	viii
Related Documentation	ix
Release Notes	ix
Configuration Guides	ix
Maintain and Operate Guides	x
Installation and Upgrade Guides	x
Licensing Guide	x
Command References	x
Technical References	xi
Error and System Messages	xi
Troubleshooting Guide	xi
Obtaining Documentation and Submitting a Service Request	xi
	xi
New and Changed Information	xiii
New and Changed Information for Cisco NX-OS Releases	xiii
New and Changed Information for Cisco NX-OS Release 5.2(1)N1(1)	xiii
A Commands	FP-1
authentication-check (FabricPath)	FP-2
authentication key-chain (FabricPath)	FP-3
authentication-type (FabricPath)	FP-4
C Commands	FP-5
clear fabricpath isis adjacency	FP-6
clear fabricpath isis statistics	FP-7
clear fabricpath isis traffic	FP-8

Send comments to nexus5k-docfeedback@cisco.com

D Commands FP-9

description (FabricPath) FP-10

F Commands FP-11

fabricpath domain default FP-12

fabricpath graceful-merge FP-13

fabricpath isis authentication key-chain FP-14

fabricpath isis authentication-check FP-15

fabricpath isis authentication-type FP-16

fabricpath isis csnp-interval FP-18

fabricpath isis hello-interval FP-19

fabricpath isis hello-multiplier FP-20

fabricpath isis hello-padding FP-21

fabricpath isis lsp-interval FP-22

fabricpath isis metric FP-23

fabricpath isis retransmit-interval FP-24

fabricpath isis retransmit-throttle-interval FP-25

fabricpath load-balance FP-26

fabricpath switch-id (FabricPath) FP-28

fabricpath switch-id (vPC) FP-30

fabricpath timers FP-31

fabricpath topology FP-33

feature-set fabricpath FP-34

H Commands FP-37

hostname dynamic (FabricPath) FP-38

I Commands FP-39

install feature-set fabricpath FP-40

L Commands FP-41

log-adjacency-changes (FabricPath) FP-42

lsp-gen-interval (FabricPath) FP-43

lsp-mtu (FabricPath) FP-44

M Commands FP-45

maximum-paths (FabricPath) FP-46

max-lsp-lifetime (FabricPath) FP-47

Send comments to nexus5k-docfeedback@cisco.com

[mode \(FabricPath\)](#) **FP-48**

R Commands **FP-51**

[reference-bandwidth \(FabricPath\)](#) **FP-52**

[root-priority \(FabricPath\)](#) **FP-53**

S Commands **FP-55**

[spf-interval](#) **FP-56**

[switchport mode fabricpath](#) **FP-57**

[system default switchport fabricpath](#) **FP-59**

Show Commands **FP-61**

[show fabricpath conflict](#) **FP-62**

[show fabricpath ftag](#) **FP-63**

[show fabricpath isis](#) **FP-64**

[show fabricpath isis adjacency](#) **FP-66**

[show fabricpath isis database](#) **FP-67**

[show fabricpath isis ftag](#) **FP-69**

[show fabricpath isis hostname](#) **FP-70**

[show fabricpath isis interface](#) **FP-71**

[show fabricpath isis ip mroute](#) **FP-72**

[show fabricpath isis ip redistribute mroute](#) **FP-73**

[show fabricpath isis protocol](#) **FP-74**

[show fabricpath isis route](#) **FP-76**

[show fabricpath isis rrm](#) **FP-77**

[show fabricpath isis spf-log](#) **FP-78**

[show fabricpath isis srm](#) **FP-79**

[show fabricpath isis ssn](#) **FP-80**

[show fabricpath isis statistics](#) **FP-81**

[show fabricpath isis switch-id](#) **FP-82**

[show fabricpath isis topology summary](#) **FP-83**

[show fabricpath isis traffic](#) **FP-84**

[show fabricpath isis trees](#) **FP-85**

[show fabricpath isis vlan-range](#) **FP-86**

[show fabricpath load-balance](#) **FP-87**

[show fabricpath load-balance multicast](#) **FP-88**

[show fabricpath load-balance unicast](#) **FP-89**

Send comments to nexus5k-docfeedback@cisco.com

[show fabricpath route](#) **FP-91**
[show fabricpath switch-id](#) **FP-93**
[show fabricpath system-id](#) **FP-94**
[show fabricpath timers](#) **FP-95**
[show fabricpath topology](#) **FP-96**
[show feature-set](#) **FP-98**
[show mroute](#) **FP-99**
[show multicast trees](#) **FP-101**
[show running-config fabricpath](#) **FP-102**

T Commands **FP-105**

[topology](#) **FP-106**



Preface

This preface describes the audience, organization, and conventions of the *Cisco Nexus 5000 Series NX-OS FabricPath Command Reference*. It also provides information on how to obtain related documentation.

This preface includes the following sections:

- [Audience, page vii](#)
- [Supported Switches, page vii](#)
- [Organization, page viii](#)
- [Document Conventions, page viii](#)
- [Related Documentation, page ix](#)
- [Obtaining Documentation and Submitting a Service Request, page xi](#)

Audience

This publication is for experienced users who configure and maintain Cisco NX-OS devices.

Supported Switches

This section includes the following topics:

- [Cisco Nexus 5500 Platform Switches, page vii](#)

Cisco Nexus 5500 Platform Switches

[Table 1](#) lists the Cisco switches supported in the Cisco Nexus 5500 Platform.



Note

For more information on these switches, see the *Cisco Nexus 5500 Platform and Cisco Nexus 5000 Platform Hardware Installation Guide* available at the following URL:
http://www.cisco.com/en/US/products/ps9670/tsd_products_support_series_home.html

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

Table 1 Supported Cisco Nexus 5500 Platform Switches

Switch	Description
Cisco Nexus 5548P Switch	The Cisco Nexus 5548P switch is the first switch in the Cisco Nexus 5500 Platform. It is a one-rack-unit (1 RU), 10-Gigabit Ethernet and Fibre Channel over Ethernet (FCoE) switch that offers up to 960-Gbps throughput and up to 48 ports.
Cisco Nexus 5596P Switch	The Cisco Nexus 5596P switch is a top-of-rack, 10-Gigabit Ethernet and FCoE switch offering up to 1920-Gigabit throughput and up to 96 ports.

Organization

This document is organized as follows:

Chapter Title	Description
New and Changed Information	Describes the new and changed information for the new Cisco NX-OS software releases.
A Commands	Describes the Cisco NX-OS FabricPath commands that begin with A.
C Commands	Describes the Cisco NX-OS FabricPath commands that begin with C.
D Commands	Describes the Cisco NX-OS FabricPath commands that begin with D.
F Commands	Describes the Cisco NX-OS FabricPath commands that begin with F.
H Commands	Describes the Cisco NX-OS FabricPath commands that begin with H.
I Commands	Describes the Cisco NX-OS FabricPath commands that begin with I.
L Commands	Describes the Cisco NX-OS FabricPath commands that begin with L.
M Commands	Describes the Cisco NX-OS FabricPath commands that begin with M.
R Commands	Describes the Cisco NX-OS FabricPath commands that begin with R.
S Commands	Describes the Cisco NX-OS FabricPath commands that begin with S.
Show Commands	Describes the Cisco NX-OS FabricPath show commands.
T Commands	Describes the Cisco NX-OS FabricPath commands that begin with T.

Document Conventions

Command descriptions use these conventions:

Convention	Description
boldface font	Commands and keywords are in boldface.
<i>italic font</i>	Arguments for which you supply values are in italics.
[]	Elements in square brackets are optional.
{ x y z }	Alternative keywords are grouped in braces and separated by vertical bars.

Send comments to nexus5k-docfeedback@cisco.com

[x y z]	Optional alternative keywords are grouped in brackets and separated by vertical bars.
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.

Screen examples use these conventions:

screen font	Terminal sessions and information that the switch displays are in screen font.
boldface screen font	Information you must enter is in boldface screen font.
<i>italic screen font</i>	Arguments for which you supply values are in italic screen font.
< >	Nonprinting characters, such as passwords, are in angle brackets.
[]	Default responses to system prompts are in square brackets.
!, #	An exclamation point (!) or a pound sign (#) at the beginning of a line of code indicates a comment line.

This document uses the following conventions:



Note

Means reader *take note*. Notes contain helpful suggestions or references to material not covered in the manual.



Caution

Means reader *be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

Related Documentation

Documentation for Cisco Nexus 5000 Series Switches and Cisco Nexus 2000 Series Fabric Extender is available at the following URL:

http://www.cisco.com/en/US/products/ps9670/tsd_products_support_series_home.html

The following are related Cisco Nexus 5000 Series and Cisco Nexus 2000 Series Fabric Extender documents:

Release Notes

Cisco Nexus 5000 Series and Cisco Nexus 2000 Series Release Notes

Cisco Nexus 5000 Series Switch Release Notes

Configuration Guides

Cisco Nexus 5000 Series Configuration Limits for Cisco NX-OS Release 5.0(2)N1(1)

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

Cisco Nexus 5000 Series Configuration Limits for Cisco NX-OS Release 4.2(1)N1(1) and Release 4.2(1)N2(1)

Cisco Nexus 5000 Series NX-OS Fibre Channel over Ethernet Configuration Guide

Cisco Nexus 5000 Series NX-OS Layer 2 Switching Configuration Guide

Cisco Nexus 5000 Series NX-OS Multicast Routing Configuration Guide

Cisco Nexus 5000 Series NX-OS Quality of Service Configuration Guide

Cisco Nexus 5000 Series NX-OS SAN Switching Configuration Guide

Cisco Nexus 5000 Series NX-OS Security Configuration Guide

Cisco Nexus 5000 Series NX-OS System Management Configuration Guide

Cisco Nexus 5000 Series NX-OS Unicast Routing Configuration Guide

Cisco Nexus 5000 Series Switch NX-OS Software Configuration Guide

Cisco Nexus 5000 Series Fabric Manager Configuration Guide, Release 3.4(1a)

Cisco Nexus 7000 Series NX-OS Fundamentals Configuration Guide, Release 6.x

Cisco Nexus 2000 Series Fabric Extender Software Configuration Guide

Maintain and Operate Guides

Cisco Nexus 5000 Series NX-OS Operations Guide

Installation and Upgrade Guides

Cisco Nexus 5000 Series and Cisco Nexus 5500 Platform Hardware Installation Guide

Cisco Nexus 2000 Series Hardware Installation Guide

Cisco Nexus 5000 Series NX-OS Software Upgrade and Downgrade Guide, Release 4.2(1)N1(1)

Regulatory Compliance and Safety Information for the Cisco Nexus 5000 Series Switches and Cisco Nexus 2000 Series Fabric Extenders

Licensing Guide

Cisco NX-OS Licensing Guide

Command References

Cisco Nexus 5000 Series NX-OS FabricPath Command Reference

Cisco Nexus 5000 Series NX-OS Fabric Extender Command Reference

Cisco Nexus 5000 Series NX-OS Fibre Channel Command Reference

Cisco Nexus 5000 Series NX-OS Fundamentals Command Reference

Cisco Nexus 5000 Series NX-OS Layer 2 Interfaces Command Reference

Cisco Nexus 5000 Series NX-OS Multicast Routing Command Reference

Send comments to nexus5k-docfeedback@cisco.com

Cisco Nexus 5000 Series NX-OS QoS Command Reference

Cisco Nexus 5000 Series NX-OS Security Command Reference

Cisco Nexus 5000 Series NX-OS System Management Command Reference

Cisco Nexus 5000 Series NX-OS TrustSec Command Reference

Cisco Nexus 5000 Series NX-OS Unicast Routing Command Reference

Cisco Nexus 5000 Series NX-OS Virtual Port Channel Command Reference

Technical References

Cisco Nexus 5000 Series and Cisco Nexus 2000 Series Fabric Extender MIBs Reference

Error and System Messages

Cisco NX-OS System Messages Reference

Troubleshooting Guide

Cisco Nexus 5000 Troubleshooting Guide

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

Subscribe to the *What's New in Cisco Product Documentation* as an RSS feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service. Cisco currently supports RSS Version 2.0.

Send comments to nexus5k-docfeedback@cisco.com



New and Changed Information

This chapter provides release-specific information for each new and changed feature in the *Cisco Nexus 5000 Series NX-OS FabricPath Command Reference*. The latest version of this document is available at the following Cisco website:

http://www.cisco.com/en/US/products/ps9670/prod_command_reference_list.html

To check for additional information about this Cisco NX-OS Release, see the *Cisco Nexus 5000 Series Switch Release Notes* available at the following Cisco website:

http://www.cisco.com/en/US/products/ps9670/prod_release_notes_list.html

New and Changed Information for Cisco NX-OS Releases

This section includes the following topics:

- [New and Changed Information for Cisco NX-OS Release 5.2\(1\)N1\(1\)](#), page xiii

New and Changed Information for Cisco NX-OS Release 5.2(1)N1(1)

[Table 1](#) summarizes the new and changed features for Cisco NX-OS Release 5.2(1)N1(1) and tells you where they are documented.

Table 1 ***New and Changed Information for Release 5.2(1)N1(1)***

Feature	Description	Changed in Release	Where Documented
FabricPath MultiTopology	This feature was introduced.	5.2(1)N1(1)	fabricpath topology , page 33 topology , page 106 show fabricpath topology , page 96

Send comments to nexus5k-docfeedback@cisco.com

Send comments to nexus5k-docfeedback@cisco.com



A Commands

This chapter describes the Cisco NX-OS FabricPath commands that begin with A.

Send comments to nexus5k-docfeedback@cisco.com

authentication-check (FabricPath)

To enable an authentication check on received protocol data units (PDUs), use the **authentication-check** command. To return to the default setting, use the **no** form of this command.

authentication-check

no authentication-check

Syntax Description This command has no arguments or keywords.

Command Default Enabled

Command Modes FabricPath IS-IS configuration mode

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines This command requires an Enhanced Layer 2 license.

Examples This example shows how to enable an authentication check on received PDUs:

```
switch# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
switch(config)# fabricpath domain default
switch(config-fabricpath-isis)# authentication-check
switch(config-fabricpath-isis)#
```

Related Commands	Command	Description
	show fabricpath isis	Displays FabricPath IS-IS information.

Send comments to nexus5k-docfeedback@cisco.com

authentication key-chain (FabricPath)

To configure an authentication keychain between FabricPath devices, use the **authentication key-chain** command. To return to the default setting, use the **no** form of this command.

authentication key-chain *auth-key-chain-name*

no authentication key-chain *auth-key-chain-name*

Syntax Description	<i>keychain-name</i>	Authentication keychain. The maximum size is 63 alphanumeric characters.
---------------------------	----------------------	--

Defaults	None
-----------------	------

Command Modes	FabricPath IS-IS configuration mode
----------------------	-------------------------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines

Use the **authentication key-chain** command to assign a password in the authentication of a hello protocol data unit. Only one authentication key-chain is applied to an IS-IS interface at one time. If you configure a second **authentication** command, the first is overridden. You can specify authentication for an entire instance of IS-IS instead of at the interface level by using the **authentication** command.

See the *Cisco Nexus 5000 Series NX-OS Security Configuration Guide* for information about keychains.

This command requires an Enhanced Layer 2 license.

Examples

This example shows how to configure an authentication keychain string for edge device authentication:

```
switch# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
switch(config)# fabricpath domain default
switch(config-fabricpath-isis)# authentication key-chain fabrickeys
switch(config-fabricpath-isis)#
```

Related Commands	Command	Description
	show fabricpath isis	Displays FabricPath IS-IS information.

Send comments to nexus5k-docfeedback@cisco.com

authentication-type (FabricPath)

To configure an authentication type, use the **authentication-type** command. To return to the default setting, use the **no** form of this command.

authentication-type { cleartext | md5 }

no authentication-type { cleartext | md5 }

Syntax Description	cleartext	Specifies the cleartext authentication method.
	md5	Specifies the Message Digest (MD5) authentication.
Command Default	Enabled	
Command Modes	FabricPath IS-IS configuration mode	
Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.
Usage Guidelines	Use the authentication-type command to configure the authentication type for hello protocol data units (PDUs) on an interface.	
	This command requires an Enhanced Layer 2 license.	
Examples	This example shows how to specify cleartext authentication:	
	<pre>switch# configure terminal Enter configuration commands, one per line. End with CNTL/Z. switch(config)# fabricpath domain default switch(config-fabricpath-isis)# authentication-type cleartext switch(config-fabricpath-isis)#</pre>	
	This example shows how to specify Message Digest (MD5) authentication:	
	<pre>switch# configure terminal Enter configuration commands, one per line. End with CNTL/Z. switch(config)# fabricpath domain default switch(config-fabricpath-isis)# authentication-type md5 switch(config-fabricpath-isis)#</pre>	
Related Commands	Command	Description
	show fabricpath isis	Displays FabricPath IS-IS information.

Send comments to nexus5k-docfeedback@cisco.com



C Commands

This chapter describes the Cisco NX-OS FabricPath commands that begin with C.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

clear fabricpath isis adjacency

To clear the FabricPath Layer 2 Intermediate-System to Intermediate-System (IS-IS) adjacency state, use the **clear fabricpath isis adjacency** command.

```
clear fabricpath isis adjacency [ * | ethernet module/slot | port-channel port_channel_number |
system-id sid]
```

Syntax Description

*	(Optional) Specifies the IS-IS adjacencies on all interfaces.
ethernet	(Optional) Specifies the IS-IS adjacencies on an Ethernet interface.
<i>module/slot</i>	(Optional) Module and slot number. The module range is from 1 to 255 and the slot is from 1 to 128.
port-channel	(Optional) Specifies the IS-IS adjacencies on a port-channel interface.
<i>port_channel_number</i>	(Optional) Port-channel number. The range is from 1 to 4096.
system-id	(Optional) Specifies the system ID.
<i>sid</i>	(Optional) System ID in the form of XXXX.XXXX.XXXX.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
5.1(3)N1(1)	This command was introduced.

Usage Guidelines



Note

If you enter the * variable, you will affect forwarding by entering this command and might interrupt traffic; this command tears down all adjacencies.

This command requires an Enhanced Layer 2 license.

Examples

This example shows how to clear the FabricPath Layer 2 adjacency state:

```
switch# clear fabricpath isis adjacency *
switch#
```

Related Commands

Command	Description
fabricpath domain default	Enables FabricPath Layer 2 IS-IS.

Send comments to nexus5k-docfeedback@cisco.com

clear fabricpath isis statistics

To clear all FabricPath Intermediate System-to-Intermediate System (IS-IS) protocol statistics, use the **clear fabricpath isis statistics** command.

clear fabricpath isis statistics *

Syntax Description	* Specifies the IS-IS adjacencies on all interfaces.	
Command Default	None	
Command Modes	EXEC mode	
Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.
Usage Guidelines	This command requires an Enhanced Layer 2 license.	
Examples	This example shows how to clear FabricPath IS-IS protocol statistics: <pre>switch# clear fabricpath isis statistics * switch#</pre>	
Related Commands	Command	Description
	fabricpath domain default	Enables FabricPath Layer 2 IS-IS.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

clear fabricpath isis traffic

To clear Intermediate System-to-Intermediate System (IS-IS) traffic information, use the **clear fabricpath isis traffic** command.

clear fabricpath isis traffic [***** | **ethernet** *module/slot* | **port-channel** *port_channel_number*]

Syntax Description	*	(Optional) Specifies the IS-IS traffic on all interfaces.
	ethernet	(Optional) Specifies the IS-IS traffic on an Ethernet interface.
	<i>module/slot</i>	(Optional) Module and slot number. The module range is from 1 to 255 and the port is from 1 to 128.
	port-channel	(Optional) Specifies the IS-IS traffic on a port-channel interface.
	<i>port_channel_number</i>	Port-channel number. The range is from 1 to 256.

Command Default None

Command Modes EXEC mode

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines This command requires an Enhanced Layer 2 license.

Examples This example shows how to clear FabricPath IS-IS traffic information:

```
switch# clear fabricpath isis traffic *
switch#
```

Related Commands	Command	Description
	fabricpath domain default	Enables FabricPath Layer 2 IS-IS.

Send comments to nexus5k-docfeedback@cisco.com



D Commands

This chapter describes the Cisco NX-OS FabricPath commands that begin with D.

Send comments to nexus5k-docfeedback@cisco.com

description (FabricPath)

To configure the topology description, use the **description** command.

description *desc*

no description *desc*

Syntax Description	<i>desc</i> Line description. The maximum size is 80 bytes.	
Command Default	None	
Command Modes	Global configuration mode	
Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.
Usage Guidelines	This command requires an Enhanced Layer 2 license.	
Examples	This example shows how to configure the topology description:	
	<pre>switch# configure terminal switch#(config)# description FabricPath Topology 50 Configuration switch#(config)#</pre>	
Related Commands	Command	Description
	fabricpath domain default	Enables FabricPath Layer 2 IS-IS.

Send comments to nexus5k-docfeedback@cisco.com



F Commands

This chapter describes the Cisco NX-OS FabricPath commands that begin with F.

Send comments to nexus5k-docfeedback@cisco.com

fabricpath domain default

To enter the global FabricPath Layer 2 Intermediate System-to-Intermediate System (IS-IS) configuration mode, use the **fabricpath-domain default** command.

fabricpath-domain default

Syntax Description	This command has no arguments or keywords.
---------------------------	--

Command Default	None
------------------------	------

Command Modes	Global configuration mode
----------------------	---------------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	This command requires an Enhanced Layer 2 license.
-------------------------	--

Examples	This example shows how to enter the global FabricPath Layer 2 IS-IS configuration mode:
-----------------	---

```
switch# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
switch(config)# fabricpath domain default
switch(config-fabricpath-isis)#
```

Related Commands	Command	Description
	show fabricpath isis	Displays FabricPath IS-IS information.

Send comments to nexus5k-docfeedback@cisco.com

fabricpath graceful-merge

To disable a graceful merge of the FabricPath feature, use the **fabricpath graceful-merge** command. To reenable this feature, enter the **no** form of the command.

fabricpath graceful-merge

no fabricpath graceful-merge

Syntax Description	This command has no arguments or keywords.
---------------------------	--

Command Default	Enabled
------------------------	---------

Command Modes	Global configuration mode
----------------------	---------------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	This command requires an Enhanced Layer 2 license.
-------------------------	--

Examples	This example shows how to disable FabricPath graceful merges on the switch:
-----------------	---

```
switch# configure terminal  
Enter configuration commands, one per line. End with CNTL/Z.  
switch(config)# fabricpath graceful-merge  
switch(config)#
```

This example shows how to enable FabricPath graceful merges on the switch:

```
switch# configure terminal  
Enter configuration commands, one per line. End with CNTL/Z.  
switch(config)# no fabricpath graceful-merge  
switch(config)#
```

Related Commands	Command	Description
	feature-set fabricpath	Enables the FabricPath feature set on the switch.
	show running-config fabricpath	Displays the running system FabricPath configuration information.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

fabricpath isis authentication key-chain

To assign a password to authentication hello protocol data units (PDUs) per interface, use the **fabricpath isis authentication key-chain** command. To return to the default setting, use the **no** form of this command.

fabricpath isis authentication key-chain *auth-key-chain-name*

no authentication isis authentication key-chain *auth-key-chain-name*

Syntax Description	<i>auth-key-chain-name</i> Authentication keychain. The maximum size is 63 alphanumeric characters.
---------------------------	---

Command Default	None
------------------------	------

Command Modes	Interface configuration mode
----------------------	------------------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines

Use the **authentication** command to assign a password in the authentication of a hello protocol data unit. Only one authentication keychain is applied to an IS-IS interface at one time. If you configure a second **authentication** command, the first is overridden. You can specify authentication for an entire instance of IS-IS instead of at the interface level by using the **authentication** command.

See the *Cisco Nexus 5000 Series NX-OS Security Configuration Guide* for information about keychains.



Note

A level specification is not required.

This command requires an Enhanced Layer 2 license.

Examples

This example shows how to configure an authentication keychain string for edge device authentication:

```
switch# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
switch(config)# interface ethernet 5/5
switch(config-if)# fabricpath isis authentication key-chain trees
switch(config-if)#
```

Related Commands	Command	Description
	show fabricpath isis	Displays FabricPath IS-IS information.

Send comments to nexus5k-docfeedback@cisco.com

fabricpath isis authentication-check

To assign a password to check authentication link-state packet (LSP) protocol data units (PDUs) per interface, use the **fabricpath isis authentication-check** command. To return to the default setting, use the **no** form of this command.

fabricpath isis authentication-check

no fabricpath isis authentication-check

Syntax Description	This command has no arguments or keywords.
---------------------------	--

Command Default	ON
------------------------	----

Command Modes	Interface configuration mode
----------------------	------------------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	This command requires an Enhanced Layer 2 license.
-------------------------	--

**Note**

Level specification is not required.

Examples	This example shows how to check authentication on received LSP PDUs:
-----------------	--

```
switch# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
switch(config)# interface ethernet 5/2
switch(config-if)# fabricpath isis authentication-check
switch(config-if)#
```

Related Commands	Command	Description
	show fabricpath isis	Displays FabricPath IS-IS information.

Send comments to nexus5k-docfeedback@cisco.com

fabricpath isis authentication-type

To assign a password to Intermediate System-to-Intermediate System (IS-IS) authentication hello protocol data units (PDUs) per interface, use the **fabricpath isis authentication-type** command. To return to the default setting, use the **no** form of this command.

fabricpath isis authentication-type {cleartext | md5}

no fabricpath isis authentication-type {cleartext | md5}

Syntax Description	cleartext	Specifies the cleartext authentication method.
	md5	Specifies the Message Digest (MD5) authentication.

Command Default	Enabled
-----------------	---------

Command Modes	Interface configuration mode
---------------	------------------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	
	 Note A level specification is not required.

This command requires an Enhanced Layer 2 license.

Examples	This example shows how to specify cleartext authentication when you are assigning a password: <pre> switch# configure terminal Enter configuration commands, one per line. End with CNTL/Z. switch(config)# interface ethernet 5/2 switch(config-if)# fabricpath isis authentication-type cleartext switch(config-if)# </pre>
	This example shows how to specify Message Digest (MD5) authentication when you are assigning a password: <pre> switch# configure terminal Enter configuration commands, one per line. End with CNTL/Z. switch(config)# interface ethernet 5/2 switch(config-if)# fabricpath isis authentication-type md5 switch(config-if)# </pre>

Send comments to nexus5k-docfeedback@cisco.com

Related Commands

Command	Description
show fabricpath isis	Displays FabricPath IS-IS information.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

fabricpath isis csnp-interval

To set an Intermediate System-to-Intermediate System (IS-IS) Complete Sequence Number PDU (CSNP) interval in seconds per interface, use the **fabricpath isis csnp-interval** command. To return to the default setting, use the **no** form of this command.

fabricpath isis csnp-interval *seconds*

no fabricpath isis csnp-interval *seconds*

Syntax Description	<i>seconds</i> CSNP interval value. The range is from 1 to 65535.	
Command Default	10 seconds	
Command Modes	Interface configuration mode	
Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.
Usage Guidelines	This command requires an Enhanced Layer 2 license.	
Examples	This example shows how to set a CSNP interval value: <pre> switch# configure terminal Enter configuration commands, one per line. End with CNTL/Z. switch(config)# interface ethernet 5/2 switch(config-if)# fabricpath isis csnp-interval 60 switch(config-if)# </pre>	
Related Commands	Command	Description
	show fabricpath isis	Displays FabricPath IS-IS information.

Send comments to nexus5k-docfeedback@cisco.com

fabricpath isis hello-interval

To set a hello interval Intermediate System-to-Intermediate System (IS-IS) in seconds per interface, use the **fabricpath isis hello-interval** command. To return to the default setting, use the **no** form of this command.

fabricpath isis hello-interval *seconds*

no fabricpath isis hello-interval *seconds*

Syntax Description	<i>seconds</i>	Hello interval value. The range is from 1 to 65535.
Command Default	10 seconds	
Command Modes	Interface configuration mode	
Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.
Usage Guidelines	This command requires an Enhanced Layer 2 license.	
Examples	This example shows how to set a hello interval in seconds:	
	<pre>switch# configure terminal Enter configuration commands, one per line. End with CNTL/Z. switch(config)# interface ethernet 5/5 switch(config-if)# fabricpath isis hello-interval 20 switch(config-if)#</pre>	
Related Commands	Command	Description
	show fabricpath isis	Displays FabricPath IS-IS information.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

fabricpath isis hello-multiplier

To set an Intermediate System-to-Intermediate System (IS-IS) multiplier for a hello holding time per interface, use the **fabricpath isis hello-multiplier** command. To return to the default setting, use the **no** form of this command.

fabricpath isis hello-multiplier *multiplier*

no fabricpath isis hello-multiplier *multiplier*

Syntax Description	<i>multiplier</i> Hello interval value. The range is from 3 to 1000.					
Command Default	The default value is 3.					
Command Modes	Interface configuration mode					
Command History	<table><tr><th>Release</th><th>Modification</th></tr><tr><td>5.1(3)N1(1)</td><td>This command was introduced.</td></tr></table>		Release	Modification	5.1(3)N1(1)	This command was introduced.
Release	Modification					
5.1(3)N1(1)	This command was introduced.					
Usage Guidelines						
 Note	A level specification is not required.					
	This command requires an Enhanced Layer 2 license.					
Examples	This example shows how to set a hello interval in seconds: switch# configure terminal Enter configuration commands, one per line. End with CNTL/Z. switch(config)# interface ethernet 5/5 switch(config-if)# fabricpath isis hello-multiplier 20 switch(config-if)#					
Related Commands	<table><tr><th>Command</th><th>Description</th></tr><tr><td>show fabricpath isis</td><td>Displays FabricPath IS-IS information.</td></tr></table>		Command	Description	show fabricpath isis	Displays FabricPath IS-IS information.
Command	Description					
show fabricpath isis	Displays FabricPath IS-IS information.					

Send comments to nexus5k-docfeedback@cisco.com

fabricpath isis hello-padding

To set FabricPath Intermediate System-to-Intermediate System (ISIS) hello protocol data unit (PDU) padding per interface, use the **fabricpath isis hello-padding** command. To return to the default setting, use the **no** form of this command.

fabricpath isis hello-padding

no fabricpath isis hello-padding [always]

Syntax Description	always (Optional) Padding for hello PDUs that is always on.				
Command Default	ON				
Command Modes	Interface configuration mode				
Command History	<table><tr><th>Release</th><th>Modification</th></tr><tr><td>5.1(3)N1(1)</td><td>This command was introduced.</td></tr></table>	Release	Modification	5.1(3)N1(1)	This command was introduced.
Release	Modification				
5.1(3)N1(1)	This command was introduced.				
Usage Guidelines	 Note If you enter the always keyword with the no form of this command, the padding is always on. This command requires an Enhanced Layer 2 license.				
Examples	This example shows how to set the FabricPath IS-IS hello PDU padding: <pre>switch# configure terminal Enter configuration commands, one per line. End with CNTL/Z. switch(config)# interface ethernet 5/2 switch(config-if)# fabricpath isis hello-padding switch(config-if)#</pre>				
Related Commands	<table><tr><th>Command</th><th>Description</th></tr><tr><td>show fabricpath isis</td><td>Displays FabricPath IS-IS information.</td></tr></table>	Command	Description	show fabricpath isis	Displays FabricPath IS-IS information.
Command	Description				
show fabricpath isis	Displays FabricPath IS-IS information.				

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

fabricpath isis lsp-interval

To set a transmission interval between Intermediate System-to-Intermediate System (IS-IS) link-state packet (LSP) protocol data units (PDUs) for each interface, use the **fabricpath isis lsp-interval** command. To return to the default setting, use the **no** form of this command.

fabricpath isis lsp-interval *msec*

no fabricpath isis lsp-interval *msec*

Syntax Description	<i>msec</i> LSP transmission interval in milliseconds. The range is from 10 to 65535.	
Command Default	33 milliseconds	
Command Modes	Interface configuration mode	
Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.
Usage Guidelines	This command requires an Enhanced Layer 2 license.	
Examples	This example shows how to set an LSP transmission interval: <pre>switch# configure terminal Enter configuration commands, one per line. End with CNTL/Z. switch(config)# interface ethernet 5/2 switch(config-if)# fabricpath isis lsp-interval 100 switch(config-if)#</pre>	
Related Commands	Command	Description
	show fabricpath isis	Displays FabricPath IS-IS information.

Send comments to nexus5k-docfeedback@cisco.com

fabricpath isis metric

To configure Intermediate System-to-Intermediate System (IS-IS) metrics for each interface, use the **fabricpath isis metric** command. To return to the default setting, use the **no** form of this command.

fabricpath isis metric *metric*

no fabricpath isis metric *metric*

Syntax Description	<i>metric</i> Default metric. The range is from 0 to 16777215.	
Command Default	Defaults (the default interface for the F Series module is 10 GB): 1 GB—400 10 GB—40	
Command Modes	Interface configuration mode	
Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.
Usage Guidelines	This command requires an Enhanced Layer 2 license.	
Examples	This example shows how to configure metrics for each interface: <pre>switch# configure terminal Enter configuration commands, one per line. End with CNTL/Z. switch(config)# interface ethernet 5/2 switch(config-if)# fabricpath isis metric 100 switch(config-if)#</pre>	
Related Commands	Command	Description
	show fabricpath isis	Displays FabricPath IS-IS information.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

fabricpath isis retransmit-interval

To set an interval between initial Intermediate System-to-Intermediate System (IS-IS) link-state packet (LSP) retransmissions for a peer-to-peer (P2P) interface, use the **fabricpath isis retransmit-interval** command. To return to the default setting, use the **no** form of this command.

fabricpath isis retransmit-interval *seconds*

no fabricpath isis retransmit-interval *seconds*

Syntax Description	<i>seconds</i>	Interval between retransmissions of the same LSP in seconds. The range is from 1 to 65535.
---------------------------	----------------	--

Command Default	5 seconds
------------------------	-----------

Command Modes	Interface configuration mode
----------------------	------------------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	This command requires an Enhanced Layer 2 license.
-------------------------	--

Examples	This example shows how to set an interval between initial LSP retransmissions for a P2P interface:
-----------------	--

```
switch# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
switch(config)# interface ethernet 5/2
switch(config-if)# fabricpath isis retransmit-interval 65532
switch(config-if)#
```

Related Commands	Command	Description
	show fabricpath isis	Displays FabricPath IS-IS information.

Send comments to nexus5k-docfeedback@cisco.com

fabricpath isis retransmit-throttle-interval

To set the interval between subsequent link-state packet (LSP) retransmissions, use the **fabricpath isis retransmit-throttle-interval** command. To return to the default setting, use the **no** form of this command.

fabricpath isis retransmit-throttle-interval *seconds*

no fabricpath isis retransmit-throttle-interval *seconds*

Syntax Description	<i>seconds</i> Interval between retransmissions of the same LSP, in seconds. The range is from 20 to 65535.	
Command Default	None	
Command Modes	Interface configuration mode	
Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.
Usage Guidelines	This command requires an Enhanced Layer 2 license.	
Examples	This example shows how to set the minimum delay value between LSP retransmissions: switch# configure terminal Enter configuration commands, one per line. End with CNTL/Z. switch(config)# interface ethernet 5/2 switch(config-if)# fabricpath isis retransmit-throttle-interval 65532 switch(config-if)#	
Related Commands	Command	Description
	show fabricpath isis	Displays FabricPath IS-IS information.

Send comments to nexus5k-docfeedback@cisco.com

fabricpath load-balance

To configure FabricPath load-balancing parameters, use the **fabricpath load-balance** command. To return to the default FabricPath unicast load-balancing scheme, use the **no** form of this command.

fabricpath load-balance unicast [{**destination** | **source** | **source-destination**}] [{**layer3** | **layer4** | **mixed**} [**include-vlan**]]

no fabricpath load-balance unicast [{**destination** | **source** | **source-destination**}] [{**layer3** | **layer4** | **mixed**} [**include-vlan**]]

Syntax Description		
unicast		Specifies that the load-balancing parameters are configured for the unicast load-balancing scheme.
destination		(Optional) Specifies that the load-balancing parameters include destination parameters.
source		(Optional) Specifies that the load-balancing parameters include source parameters.
source-destination		(Optional) Specifies that the load-balancing parameters include source and destination parameters.
layer3		(Optional) Specifies that the load-balancing parameters only include Layer 3 parameters.
layer4		(Optional) Specifies that the load-balancing parameters only include Layer 4 parameters.
mixed		(Optional) Specifies that the load-balancing parameters include a mix of Layer 3 and Layer 4 parameters. This is the default configuration.
include-vlan		(Optional) Specifies that the load-balancing parameters use VLAN.

Command Default Includes a mix of Layer 3 and Layer 4 parameters.

Command Modes Global configuration mode

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines This command requires an Enhanced Layer 2 license.

Examples This example shows how to configure the FabricPath source load-balancing parameters:

```
switch# configure terminal
switch(config)# fabricpath load-balance unicast source
switch(config)#
```

Send comments to nexus5k-docfeedback@cisco.com

This example shows how to remove the FabricPath load-balancing parameters:

```
switch# configure terminal
switch(config)# no fabricpath load-balance unicast source
switch(config)#
```

Related Commands

Command	Description
show fabricpath load-balance	Displays the FabricPath load-balancing information.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

fabricpath switch-id (FabricPath)

To configure the FabricPath switch ID, use the **fabricpath switch-id** command. To remove the statically configured switch ID, use the **no** from of this command.

fabricpath switch-id *switch-id*

no fabricpath switch-id

Syntax Description	<i>switch-id</i> FabricPath switch ID. The range is from 1 to 4094.
---------------------------	---

Command Default	None
------------------------	------

Command Modes	Global configuration mode
----------------------	---------------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	You do not have to manually assign a switch ID unless you are running a virtual port channel plus (vPC+) because the system assigns a switch ID for you when you enable FabricPath.
-------------------------	---



Note

For more information about vPC+, see the **fabricpath switch-id (vpc-domain configuration mode)** command.

This command requires an Enhanced Layer 2 license.

Examples	This example shows how to configure a switch ID on a FabricPath-enabled device:
-----------------	---

```
switch# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
switch(config)# fabricpath switch-id 40
switch(config)#
```

This example shows how to configure a switch ID on a FabricPath-enabled device:

```
switch# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
switch(config)# no fabricpath switch-id 40
switch(config)#
```

Send comments to nexus5k-docfeedback@cisco.com

Related Commands	Command	Description
	show fabricpath switch-id	Displays information about switch IDs.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

fabricpath switch-id (vPC)

To configure a virtual port channel plus (vPC+) switch ID, use the **fabricpath switch-id** command. To remove the FabricPath switch from a vPC domain, use the **no** form of this command.

fabricpath switch-id *switch-id*

no fabricpath switch-id [*switch-id*]

Syntax Description

<i>switch-id</i>	FabricPath switch ID. The range is from 1 to 4094.
------------------	--

Command Default

None

Command Modes

vPC domain configuration mode

Command History

Release	Modification
5.1(3)N1(1)	This command was introduced.

Usage Guidelines

You do not have to manually assign a switch ID (unless you are running a vPC+); the system assigns a switch ID for you when you enable FabricPath.



Note

You must assign the same vPC+ switch ID to each of the two vPC+ peer devices before they can form an adjacency.

This command requires an Enhanced Layer 2 license.

Examples

This example shows how to configure a vPC+ switch ID on a FabricPath-enabled device:

```
switch# configure terminal
switch(config)# vpc domain 1
switch(config-vpc-domain)# fabricpath switch-id 1
Configuring fabricpath switch id will flap vPCs. Continue (yes/no)? [no]
```

Related Commands

Command	Description
show running-config fabricpath	Displays the running system FabricPath configuration information.
show vpc	Displays information about a vPC.

Send comments to nexus5k-docfeedback@cisco.com

fabricpath timers

To configure FabricPath timers, use the **fabricpath timers** command. To remove the FabricPath timers, use the **no** form of this command.

fabricpath timers {**allocate-delay** *sec* | **linkup-delay** *sec* | **transition-delay** *sec*}

no fabricpath timers {**allocate-delay** | **linkup-delay** | **transition-delay**}

Syntax Description		
allocate-delay		Specifies the time delay for a new resource to be propagated throughout the network.
<i>sec</i>		Timer value in seconds. The range is from 1 to 1200 seconds.
linkup-delay		Specifies the time delay for a link bringup to detect conflicts.
transition-delay		Specifies the time delay for a transitioned value to be propagated throughout the network.

Command Default

- allocate-delay—10 seconds
- linkup-delay—10 seconds
- transition-delay—10 seconds

Command Modes

Global configuration mode

Command History

Release	Modification
5.1(3)N1(1)	This command was introduced.

Usage Guidelines

This command requires an Enhanced Layer 2 license.

Examples

This example shows how to configure the delay for a new switch ID to be propagated throughout the network before that value becomes available and permanent:

```
switch# configure terminal
switch(config)# fabricpath timers allocate-delay 600
switch(config)#
```

This example shows how to configure the link bringup delay to detect conflicts in the switch ID. If the system finds a conflict, the system takes some time to resolve the conflict and to bring FabricPath to an operational state:

```
switch# configure terminal
switch(config)# fabricpath timers linkup-delay 600
switch(config)#
```

Send comments to nexus5k-docfeedback@cisco.com

This example shows how to configure the delay for propagating a transitioned value in the network; during this period, all old and new switch ID values exist in the network. This transition lasts only until the link comes up and the system checks to see if the network has two identical switch IDs.

```
switch# configure terminal
switch(config)# fabricpath timers transition-delay 600
switch(config)#
```

Related Commands

Command	Description
show fabricpath timers	Displays information about the FabricPath timers.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

fabricpath topology

To configure a FabricPath topology, use the **fabricpath topology** command. To remove a FabricPath topology, use the **no** form of this command.

**Note**

Cisco Nexus 5000 series only supports 2 topologies; the default or base topology (topology 0), and the local VLAN topology (topology 1).

fabricpath topology *topology_number*

no fabricpath topology [*topology_number*]

Syntax Description

<i>topology_number</i>	Topology ID. The range is from 1 to 63.
------------------------	---

Command Default

None

Command Modes

Interface configuration mode

Command History

Release	Modification
5.1(3)N1(1)	This command was introduced.

Usage Guidelines

This command requires an Enhanced Layer 2 license.

Examples

This example shows how to configure a FabricPath topology:

```
switch# configure terminal
switch(config)# interface ethernet 1/5
switch(config-if)# fabricpath topology 1
switch(config-if)#
```

This example shows how to remove all FabricPath topologies configured on the switch:

```
switch# configure terminal
switch(config)# interface ethernet 1/5
switch(config-if)# no fabricpath topology
switch(config-if)#
```

Related Commands

Command	Description
show fabricpath route	Displays the FabricPath routing topology.
show fabricpath topology	Displays information about the FabricPath Intermediate System-to-Intermediate System (IS-IS) topology.

Send comments to nexus5k-docfeedback@cisco.com

feature-set fabricpath

To enable a FabricPath feature set, use the **feature-set fabricpath** command. To disable the FabricPath feature, use the **no** form of this command.

feature-set fabricpath

no feature-set fabricpath

Syntax Description This command has no arguments or keywords.

Command Default None

Command Modes Global configuration mode

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines



Note

The FabricPath feature is supported only on the Cisco Nexus 5500 Series switches.

You cannot view or access any FabricPath commands until you enable FabricPath on the device.



Note

You must install the FabricPath feature set before you enable FabricPath on the switch.

This command requires an Enhanced Layer 2 license.

Examples

This example shows how to enable the FabricPath feature on the switch:

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

This example shows how to disable the FabricPath feature on the switch:

```
switch# configure terminal
switch(config)# no feature-set fabricpath
switch(config)#
```

Send comments to nexus5k-docfeedback@cisco.com

Related Commands	Command	Description
	feature fabric-binding	Enables or disables fabric binding on the switch.
	install feature-set fabricpath	Installs the FabricPath feature set on the switch.
	show feature-set	Displays the status of the feature.

Send comments to nexus5k-docfeedback@cisco.com

Send comments to nexus5k-docfeedback@cisco.com



H Commands

This chapter describes the Cisco NX-OS FabricPath commands that begin with H.

Send comments to nexus5k-docfeedback@cisco.com

hostname dynamic (FabricPath)

To configure a dynamic hostname exchange for Intermediate-System-to-Intermediate System (IS-IS), use the **hostname dynamic** command. To return to the default setting, use the **no** form of this command.

hostname dynamic

no hostname dynamic

Syntax Description This command has no arguments or keywords.

Command Default ON

Command Modes FabricPath IS-IS configuration mode

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines This command requires an Enhanced Layer 2 license.

Examples This example shows how to configure a dynamic hostname exchange for IS-IS:

```
switch# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
switch(config)# fabricpath domain default
switch(config-fabricpath-isis)# hostname dynamic
switch(config-fabricpath-isis)#
```

Related Commands	Command	Description
	show hostname	Displays the system's hostname.

Send comments to nexus5k-docfeedback@cisco.com



I Commands

This chapter describes the Cisco NX-OS FabricPath commands that begin with I.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

install feature-set fabricpath

To install the FabricPath feature set on the switch, use the **install feature-set fabricpath** command. To remove the FabricPath feature set, use the **no** form of this command.

install feature-set fabricpath

no install feature-set fabricpath

Syntax Description This command has no arguments or keywords.

Command Default Disabled

Command Modes Global configuration mode

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines



Note

The FabricPath feature is supported only on the Cisco Nexus 5500 Series switches.

This command requires an Enhanced Layer 2 license.

Examples This example shows how to install the FabricPath features on the switch:

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

Related Commands	Command	Description
	feature fabric-binding	Enables or disables fabric binding on the switch.
	feature-set fabricpath	Enables the FabricPath feature set on the switch.
	show running-config	Displays the running system configuration information.

Send comments to nexus5k-docfeedback@cisco.com



L Commands

This chapter describes the Cisco NX-OS FabricPath commands that begin with L.

Send comments to nexus5k-docfeedback@cisco.com

log-adjacency-changes (FabricPath)

To configure the log changes in the adjacency state, use the **log-adjacency-changes** command. To return to the default setting, use the **no** form of this command.

log-adjacency-changes

no log-adjacency-changes

Syntax Description This command has no arguments or keywords.

Command Default ON

Command Modes FabricPath IS-IS configuration mode

Release	Modification
5.1(3)N1(1)	This command was introduced.

Usage Guidelines This command requires an Enhanced Layer 2 license.

Examples This example shows how to configure the log changes in the adjacency state:

```
switch# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
switch(config)# fabricpath domain default
switch(config-fabricpath-isis)# log-adjacency-changes
switch(config-fabricpath-isis)#
```

Command	Description
show fabricpath isis	Displays FabricPath IS-IS information.

Send comments to nexus5k-docfeedback@cisco.com

lsp-gen-interval (FabricPath)

To configure a link-state packet (LSP) generation interval, use the **lsp-gen-interval** command. To return to the default setting, use the **no** form of this command.

lsp-gen-interval { *lsp-max-wait* | *lsp-initial-wait* | *lsp-second-wait* }

no lsp-gen-interval { *lsp-max-wait* | *lsp-initial-wait* | *lsp-second-wait* }

Syntax Description

<i>lsp-max-wait</i>	Maximum interval (in seconds) between two consecutive occurrences of an LSP being generated. The range is from 50 to 120000. The default is 8000.
<i>lsp-initial-wait</i>	Initial LSP generation delay (in milliseconds). The range is from 50 to 120000. The default is 50.
<i>lsp-second-wait</i>	Hold time between the first and second LSP generation (in milliseconds). The range is from 50 to 120000. The default is 50.

Command Default

The defaults are as follows:

- lsp-max-wait: 8000
- lsp-initial-wait: 50
- lsp-second-wait: 50

Command Modes

FabricPath IS-IS configuration mode

Command History

Release	Modification
5.1(3)N1(1)	This command was introduced.

Usage Guidelines

You can enter the **lsp-gen-interval** command to control the rate of LSP packets being generated, transmitted, and retransmitted.

This command requires an Enhanced Layer 2 license.

Examples

This example shows how to configure an LSP-generation interval:

```
switch# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
switch(config)# fabricpath domain default
switch(config-fabricpath-isis)# lsp-gen-interval 9000 60 70
switch(config-fabricpath-isis)#
```

Related Commands

Command	Description
show fabricpath isis	Displays FabricPath IS-IS information.

Send comments to nexus5k-docfeedback@cisco.com

lsp-mtu (FabricPath)

To configure a link-state packet (LSP) maximum transmission unit (MTU) that is generated by the Cisco NX-OS software, use the **lsp-mtu** command. To return to the default setting, use the **no** form of this command.

lsp-mtu *bytes*

no lsp-mtu *bytes*

Syntax Description	<i>bytes</i> Maximum LSP size in bytes. The range is from 128 to 4352.	
Command Default	1492 bytes	
Command Modes	FabricPath IS-IS configuration mode	
Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.
Usage Guidelines	This command requires an Enhanced Layer 2 license.	
Examples	This example shows how to set the maximum LSP size to 1500 bytes: <pre>switch# configure terminal Enter configuration commands, one per line. End with CNTL/Z. switch(config)# fabricpath domain default switch(config-fabricpath-isis)# lsp-mtu 1500 switch(config-fabricpath-isis)#</pre>	
Related Commands	Command	Description
	show fabricpath isis	Displays FabricPath Layer 2 IS-IS.

Send comments to nexus5k-docfeedback@cisco.com



M Commands

This chapter describes the Cisco NX-OS FabricPath commands that begin with M.

Send comments to nexus5k-docfeedback@cisco.com

maximum-paths (FabricPath)

To configure the maximum number of paths per destination, use the **maximum-paths** command. To return to the default setting, use the **no** form of this command.

maximum-paths *paths*

no maximum-paths *paths*

Syntax Description	<i>paths</i>	Maximum number of paths per destination. The range is from 1 to 16.
---------------------------	--------------	---

Defaults	The default value is 16.
-----------------	--------------------------

Command Modes	FabricPath IS-IS configuration mode
----------------------	-------------------------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	This command requires an Enhanced Layer 2 license.
-------------------------	--

Examples	This example shows how to configure the maximum number of paths per destination:
-----------------	--

```
switch# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
switch(config)# fabricpath domain default
switch(config-fabricpath-isis)# topology 1
switch(config-fabricpath-isis-topo)# maximum-paths 1
switch(config-fabricpath-isis-topo)#
```

Related Commands	Command	Description
	show fabricpath isis	Displays FabricPath Layer 2 IS-IS.

Send comments to nexus5k-docfeedback@cisco.com

max-lsp-lifetime (FabricPath)

To configure a lifetime for a maximum link-state packet (LSP), use the **max-lsp-lifetime** command. To return to the default setting, use the **no** form of this command.

max-lsp-lifetime *value*

no max-lsp-lifetime *value*

Syntax Description	<i>value</i> Maximum LSP lifetime in seconds. The range is from 1 to 65535.					
Command Default	1200 seconds					
Command Modes	FabricPath IS-IS configuration mode					
Command History	<table><tr><th>Release</th><th>Modification</th></tr><tr><td>5.1(3)N1(1)</td><td>This command was introduced.</td></tr></table>		Release	Modification	5.1(3)N1(1)	This command was introduced.
Release	Modification					
5.1(3)N1(1)	This command was introduced.					
Usage Guidelines	The maximum LSP lifetime must be greater than the LSP refresh interval. This command requires an Enhanced Layer 2 license.					
Examples	This example shows how to set the maximum time that the link-state packets persists to 11,000 seconds: <pre>switch# configure terminal Enter configuration commands, one per line. End with CNTL/Z. switch(config)# fabricpath domain default switch(config-fabricpath-isis)# max-lsp-lifetime 1300 switch(config-fabricpath-isis)#</pre>					
Related Commands	<table><tr><th>Command</th><th>Description</th></tr><tr><td>show fabricpath isis</td><td>Displays FabricPath Layer 2 IS-IS.</td></tr></table>		Command	Description	show fabricpath isis	Displays FabricPath Layer 2 IS-IS.
Command	Description					
show fabricpath isis	Displays FabricPath Layer 2 IS-IS.					

Send comments to nexus5k-docfeedback@cisco.com

mode (FabricPath)

To configure VLANs as FabricPath VLANs for FabricPath forwarding, use the **mode** command. To remove the FabricPath VLANs, use the **no** form of this command.

mode { **ce** | **fabricpath** }

no mode { **ce** | **fabricpath** }

Syntax Description	ce	Enables the VLAN as a Classical IEEE 802.1Q Ethernet (CE) VLAN. This is the default VLAN mode.
	fabricpath	Enables the VLAN as a FabricPath VLAN.

Command Default The default VLAN mode is **ce**.

Command Modes VLAN configuration mode

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines Ensure that you have enabled the FabricPath feature set.



Note

You must have already created the VLANs before you can set the VLAN mode using FabricPath.

You designate those VLANs that you want to carry FabricPath traffic on the network by configuring them as FabricPath VLANs. By default, all FabricPath VLANs and FabricPath interfaces are added to the default FabricPath topology.

All FabricPath VLANs use conversational learning only if the switch virtual interface (SVI) is not enabled on the VLANs; otherwise, FabricPath VLANs use traditional learning.

Only FabricPath VLANs support conversational learning. CE VLANs support only traditional learning.

This command requires an Enhanced Layer 2 license.

Examples This example shows how to configure a VLAN as a FabricPath VLAN:

```
switch# configure terminal
switch(config)# vlan 5
switch(config-vlan)# mode fabricpath
switch(config-vlan)#
```

This example shows how to remove a FabricPath VLAN:

```
switch# configure terminal
switch(config)# no vlan 5
```

Send comments to nexus5k-docfeedback@cisco.com

```
switch(config-vlan)# no mode fabricpath  
switch(config-vlan)#
```

Related Commands

Command	Description
feature-set fabricpath	Enables the FabricPath feature set on the switch.
show fabricpath topology vlangs	Displays information about the FabricPath Intermediate System-to-Intermediate System (IS-IS) topology, including the VLANs in the Layer 2 topology.

Send comments to nexus5k-docfeedback@cisco.com

Send comments to nexus5k-docfeedback@cisco.com



R Commands

This chapter describes the Cisco NX-OS FabricPath commands that begin with R.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

reference-bandwidth (FabricPath)

To change the reference bandwidth used for setting an interface, use the **reference bandwidth** command. To return to the default setting, use the **no** form of this command.

reference-bandwidth *bandwidth* {Mbps | Gbps}

no reference-bandwidth *bandwidth* {Mbps | Gbps}

Syntax Description

<i>bandwidth</i>	Specifies the bandwidth in Mbps and Gbps. The range is from 1 to 400000 in Mbps and from 1 to 400 in Gbps.
Mbps	Specifies the bandwidth in Mbps.
Gbps	Specifies the bandwidth in Gbps.

Command Default

The defaults are as follows:

- Gbps: 400
- Mbps: 400000

Command Modes

FabricPath IS-IS configuration mode

Command History

Release	Modification
5.1(3)N1(1)	This command was introduced.

Usage Guidelines

This command requires an Enhanced Layer 2 license.

Examples

This example shows how to change the reference bandwidth for a Gbps interface:

```
switch# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
switch(config)# fabricpath domain default
switch(config-fabricpath-isis)# topology 1
switch(config-fabricpath-isis-topo)# reference-bandwidth 500 Gbps
switch(config-fabricpath-isis-topo)#
```

Related Commands

Command	Description
show fabricpath isis	Displays FabricPath Layer 2 IS-IS.

Send comments to nexus5k-docfeedback@cisco.com

root-priority (FabricPath)

To set the priority for which node becomes the root, use the **root-priority** command. To return to the default setting, use the **no** form of this command.

root-priority *value*

no root-priority *value*

Syntax Description	<i>value</i>	Root priority value per topology. The range is from 1 to 255. The default is 64.
--------------------	--------------	--

Command Default	The default value is 64.
-----------------	--------------------------

Command Modes	FabricPath IS-IS configuration mode
---------------	-------------------------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	The highest numerical value for the priority is likely to become root. This command requires an Enhanced Layer 2 license.
------------------	--

Examples	This example shows how to set the priority for which node becomes the root: switch# configure terminal Enter configuration commands, one per line. End with CNTL/Z. switch(config)# fabricpath domain default switch(config-fabricpath-isis)# topology 1 switch(config-fabricpath-isis-topo)# root-priority 1 switch(config-fabricpath-isis-topo)#
----------	--

Related Commands	Command	Description
	show fabricpath isis	Displays FabricPath IS-IS information.

Send comments to nexus5k-docfeedback@cisco.com

Send comments to nexus5k-docfeedback@cisco.com



S Commands

This chapter describes the Cisco NX-OS FabricPath commands that begin with S.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

spf-interval

To configure an interval for shortest-path-first (SPF) generation, use the **spf-interval** command. To return to the default setting, use the **no** form of this command.

spf-interval { *spf-max-wait* | *spf-initial-wait* | *spf-second-wait* }

no spf-interval { *spf-max-wait* | *spf-initial-wait* | *spf-second-wait* }

Syntax Description		
<i>spf-max-wait</i>		Maximum interval (in seconds) between two consecutive occurrences of a link-state packet (LSP) being generated. The range is from 50 to 120000.
<i>spf-initial-wait</i>		Initial LSP generation delay (in milliseconds). The range is from 50 to 120000.
<i>spf-second-wait</i>		Hold time between the first and second LSP generation (in milliseconds). The range is from 50 to 120000.

Command Default The defaults are as follows:

- spf-max-wait: 8000
- spf-initial-wait: 50
- spf-second-wait: 50

Command Modes FabricPath IS-IS configuration mode

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines This command requires an Enhanced Layer 2 license.

Examples This example shows how to configure an interval for SPF generation:

```
switch# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
switch(config)# fabricpath domain default
switch(config-fabricpath-isis)# spf-interval 9000 60 70
switch(config-fabricpath-isis)#
```

Related Commands	Command	Description
	fabricpath domain default	Enables FabricPath Layer 2 IS-IS.

Send comments to nexus5k-docfeedback@cisco.com

switchport mode fabricpath

To configure interfaces as FabricPath ports, use the **switchport mode fabricpath** command. To return the interfaces to the default settings, use the **no** form of this command.

switchport mode fabricpath

no switchport mode

Syntax Description	This command has no arguments or keywords.
---------------------------	--

Command Default	None
------------------------	------

Command Modes	Interface configuration mode Virtual Ethernet interface configuration mode
----------------------	---

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines

**Note**

The **no** keyword returns the interface to the default Classical IEEE 802.1Q Ethernet (CE) switchport access interface. The FabricPath ports carry traffic only for those VLANs configured as FabricPath VLANs.

This command requires an Enhanced Layer 2 license.

Examples

This example shows how to configure specific interfaces as FabricPath ports:

```
switch# configure terminal
switch(config)# interface ethernet 2/11-15
switch(config-if)# switchport mode fabricpath
switch(config-if)# no shutdown
switch(config-if)#
```

This example shows how to configure a virtual Ethernet interface as a FabricPath port:

```
switch# configure terminal
switch(config)# interface vethernet 1
switch(config-if)# switchport mode fabricpath
switch(config-if)# no shutdown
switch(config-if)#
```

Send comments to nexus5k-docfeedback@cisco.com

Related Commands

Command	Description
show interface brief	Displays a brief summary of the interface status and information.

Send comments to nexus5k-docfeedback@cisco.com

system default switchport fabricpath

To configure the default port mode as FabricPath, use the **system default switchport fabricpath** command. To return to the default settings, use the **no** form of this command.

system default switchport fabricpath

no system default switchport fabricpath

Syntax Description	This command has no arguments or keywords.
---------------------------	--

Command Default	None
------------------------	------

Command Modes	Global configuration mode
----------------------	---------------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	This command requires an Enhanced Layer 2 license.
-------------------------	--

Examples	This example shows how to configure the default port mode as FabricPath:
-----------------	--

```
switch# configure terminal
switch(config)# system default switchport fabricpath
switch(config)#
```

Related Commands	Command	Description
	show running-config	Displays the running system configuration information.

Send comments to nexus5k-docfeedback@cisco.com

Send comments to nexus5k-docfeedback@cisco.com



Show Commands

This chapter describes the Cisco NX-OS FabricPath **show** commands.

Send comments to nexus5k-docfeedback@cisco.com

show fabricpath conflict

To display information about the conflicts in the FabricPath network, use the **show fabricpath conflict** command.

show fabricpath conflict { **all** [**detail**] | **link** [**detail**] | **switch-id** [**detail**] | **transitions** [**detail**] }

Syntax Description

all	Displays all the conflicts.
detail	(Optional) Displays the details.
link	Displays all the links.
switch-id	Displays the switch IDs.
transitions	Displays the transitions.

Command Default

None

Command Modes

Any command mode

Command History

Release	Modification
5.1(3)N1(1)	This command was introduced.

Usage Guidelines

This command requires an Enhanced Layer 2 license.

Examples

This example shows how to display detailed information about the conflicts in the FabricPath network:

```
switch# show fabricpath conflict all detail
No Ports under Fabricpath control
No Switch id Conflicts
No transitions in progress
switch#
```

Related Commands

Command	Description
show running-config fabricpath	Displays current FabricPath configuration.

Send comments to nexus5k-docfeedback@cisco.com

show fabricpath ftag

To display information about the FabricPath FTAG, use the **show fabricpath ftag** command.

show fabricpath ftag

Syntax Description	This command has no arguments or keywords.
---------------------------	--

Command Default	None
------------------------	------

Command Modes	Any command mode
----------------------	------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	This command requires an Enhanced Layer 2 license.
-------------------------	--

Examples	This example shows how to display the information about the FabricPath FTAG: <pre>switch# show fabricpath ftag No ftag values present switch#</pre>
-----------------	---

Related Commands	Command	Description
	show running-config fabricpath	Displays the current FabricPath configuration.

Send comments to nexus5k-docfeedback@cisco.com

show fabricpath isis

To display the FabricPath Intermediate System-to-Intermediate System (IS-IS) adjacency database, use the **show fabricpath isis** command.

show fabricpath isis

Syntax Description	This command has no arguments or keywords.
---------------------------	--

Command Default	None
------------------------	------

Command Modes	Global configuration mode
----------------------	---------------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	This command requires an Enhanced Layer 2 license.
-------------------------	--

Examples	This example shows how to display detailed information about the IS-IS adjacency:
-----------------	---

```
switch# show fabricpath isis
```

```
Fabricpath IS-IS domain : default
  System ID : 0005.73a3.ba3c  IS-Type : L1
  SAP : 432  Queue Handle : 11
  Maximum LSP MTU: 1492
  Graceful Restart enabled. State: Inactive
  Last graceful restart status : none
  Metric-style : advertise(wide), accept(wide)
  Start-Mode: Complete [Start-type configuration]
  Area address(es) :
    00
  Process is up and running
  CIB ID: 4
  Interfaces supported by Fabricpath IS-IS :
  Level 1
  Authentication type and keychain not configured
  Authentication check specified
  MT-0 Ref-Bw: 400000
  Address family Swid unicast :
    Number of interface : 0
    Distance : 115
  L1 Next SPF: Inactive
switch#
```

Send comments to nexus5k-docfeedback@cisco.com

Related Commands	Command	Description
	fabricpath domain default	Enables FabricPath Layer 2 IS-IS.
	show running-config fabricpath	Displays the FabricPath running system configuration information.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

show fabricpath isis adjacency

To display the FabricPath Intermediate System-to-Intermediate System (IS-IS) adjacency database, use the **show fabricpath isis adjacency** command.

show fabricpath isis adjacency [**interface** {**ethernet** *module/slot* | **port-channel** *channel-number*} | **detail** | **summary** | **system-id** *sid*]

Syntax Description

interface	(Optional) Displays the interface status.
ethernet	Displays the Ethernet interface.
<i>module/slot</i>	Module and slot number. The module number is from 1 to 255 and the port number is from 1 to 128.
port-channel	Displays the port-channel interface.
<i>channel-number</i>	Port-channel number. The range is from 1 to 4096.
detail	(Optional) Displays the IS-IS adjacency detailed information.
summary	(Optional) Displays the IS-IS adjacency summary information.
system-id	(Optional) Displays the system ID.
<i>sid</i>	Hostname or system ID in the format XXXX.XXXX.XXXX.

Command Default

None

Command Modes

Global configuration mode

Command History

Release	Modification
5.1(3)N1(1)	This command was introduced.

Usage Guidelines

This command requires an Enhanced Layer 2 license.

Examples

This example shows how to display detailed information about the IS-IS adjacency:

```
switch# show fabricpath isis adjacency detail
switch#
```

Related Commands

Command	Description
fabricpath domain default	Enables FabricPath Layer 2 IS-IS.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

show fabricpath isis database

To display information about the FabricPath Intermediate System-to-Intermediate System (IS-IS) link-state packet (LSP) database, use the **show fabricpath isis database** command.

```
show fabricpath isis database [I1] [level-1] [mgroup] [detail | summary] [sid] {[zero-sequence]
| [router-id] | [adjacency]}
```

Syntax Description	
I1	(Optional) Displays the IS-IS Level-1 routing link state database.
level-1	(Optional) Displays the IS-IS Level-1 routing link state database.
mgroup	(Optional) Displays the IS-IS GM database information.
detail	(Optional) Displays the detailed IS-IS information.
summary	(Optional) Displays the summary IS-IS information.
<i>sid</i>	(Optional) LSP ID in the format XXXX.XXXX.XXXX.XX-XX.
zero-sequence	(Optional) Displays the LSP with a zero sequence number.
router-id	(Optional) Displays the router ID filter.
adjacency	(Optional) Displays the adjacency filter.

Command Default	None
-----------------	------

Command Modes	Global configuration mode
---------------	---------------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	This command requires an Enhanced Layer 2 license.
------------------	--

Examples	This example shows how to display information about the FabricPath IS-IS LSP database:
----------	--

```
switch# show fabricpath isis database
Fabricpath IS-IS domain: default LSP database
  LSPID           Seq Number   Checksum   Lifetime    A/P/O/T
  O2-48_Mgmt-2.00-00 * 0x00000008 0x2F9D     1073       0/0/0/1
switch#
```

This example shows how to display the IS-IS Level-1 routing link state database:

```
switch# show fabricpath isis database level-1
Fabricpath IS-IS domain: default LSP database
  LSPID           Seq Number   Checksum   Lifetime    A/P/O/T
  O2-48_Mgmt-2.00-00 * 0x00000008 0x2F9D     1041       0/0/0/1
switch#
```

Send comments to nexus5k-docfeedback@cisco.com

Related Commands

Command	Description
fabricpath domain default	Enables FabricPath Layer 2 IS-IS.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

show fabricpath isis ftag

To display Intermediate System-to-Intermediate System (IS-IS) FTAG values associated with the trees in the topology, use the **show fabricpath isis ftag** command.

show fabricpath isis ftag [**multidestination** *tree-id*]

Syntax Description	multidestination	(Optional) Displays the multidestination information.
	<i>tree-id</i>	Tree identifier. The range is from 1 to 2.

Command Default	None
-----------------	------

Command Modes	Global configuration mode
---------------	---------------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	This command requires an Enhanced Layer 2 license.
------------------	--

Examples	This example shows how to display IS-IS FTAG multidestination information:
----------	--

```
switch# show fabricpath isis ftag multidestination 1
Fabricpath IS-IS domain: default
Fabricpath IS-IS Ftag Database
  Legend: C - Confirmed, T - tentative

MT-0
      PrimaryTree
Multidestination-2    0 [C]
switch#
```

Related Commands	Command	Description
	fabricpath domain default	Enables FabricPath Layer 2 IS-IS.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

show fabricpath isis hostname

To display FabricPath Intermediate System-to-Intermediate System (IS-IS) hostname table information, use the **show fabricpath isis hostname** command.

show fabricpath isis hostname [detail]

Syntax Description	detail	(Optional) Displays the detailed IS-IS information.
--------------------	--------	---

Command Default	None
-----------------	------

Command Modes	Global configuration mode
---------------	---------------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	This command requires an Enhanced Layer 2 license.
------------------	--

Examples	This example shows how to display information about the FabricPath IS-IS hostname table: <pre>Switch# show fabricpath isis hostname detail Fabricpath IS-IS domain: default dynamic hostname table Level LSP ID Dynamic hostname 1 0005.73a3.ba3c.00-00* 02-48_Mgmt-2 switch#</pre>
----------	---

Related Commands	Command	Description
	fabricpath domain default	Enables FabricPath Layer 2 IS-IS.

Send comments to nexus5k-docfeedback@cisco.com

show fabricpath isis interface

To display information about the FabricPath Intermediate System-to-Intermediate System (IS-IS) interface, use the **show fabricpath isis interface** command.

show fabricpath isis interface { **brief** | **ethernet** *slot/port* | **port-channel** *channel-number* }

Syntax Descriptions	brief	Displays brief information about the IS-IS interface.
	ethernet	Displays the Ethernet interface.
	<i>slot/port</i>	Slot/chassis number and the port number. The slot number is from 1 to 255 and the port number is from 1 to 128.
	port-channel	Displays the port-channel interface.
	<i>channel-number</i>	Port-channel number. The range is from 1 to 4096.

Command Default	None
------------------------	------

Command Modes	Global configuration mode
----------------------	---------------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	This command requires an Enhanced Layer 2 license.
-------------------------	--

Examples	This example shows how to display the brief information about the FabricPath IS-IS interface: <pre>switch1# show fabricpath isis interface brief</pre>
	This example shows how to display the FabricPath IS-IS interface information for an Ethernet interface: <pre>switch1# show fabricpath isis interface ethernet 1/2</pre>

Related Commands	Command	Description
	fabricpath domain default	Enables FabricPath Layer 2 IS-IS.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

show fabricpath isis ip mroute

To display information about the FabricPath Intermediate System-to-Intermediate System (IS-IS) multicast route, use the **show fabricpath isis ip mroute** command.

show fabricpath isis ip mroute [**vlan** *vlan-id* [**group** *group-id* [**source** *source-id*]]]

Syntax Description

vlan	(Optional) Displays the IS-IS VLAN information.
<i>vlan-id</i>	VLAN ID. The range is from 1 to 4094.
group	(Optional) Displays the group information.
<i>group-id</i>	Group ID information in the format <i>A.B.C.D</i> .
source	(Optional) Displays the source information.
<i>source-id</i>	Source ID in the format <i>A.B.C.D</i> .

Command Default

None

Command Modes

Global configuration mode

Command History

Release	Modification
5.1(3)N1(1)	This command was introduced.

Usage Guidelines

This command requires an Enhanced Layer 2 license.

Examples

This example shows how to display information about the IS-IS mroute:

```
switch# show fabricpath isis ip mroute
```

Related Commands

Command	Description
fabricpath domain default	Enables FabricPath Layer 2 IS-IS.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

show fabricpath isis ip redistribute mroute

To display the FabricPath Intermediate System-to-Intermediate System (IS-IS) redistribute multicast route information, use the **show fabricpath isis ip redistribute mroute** command.

show fabricpath isis ip redistribute mroute [**vlan** *vlan-id* [**group** *group-id* [**source** *source-id*]]]

Syntax Description	vlan	(Optional) Displays the IS-IS VLAN information.
	<i>vlan-id</i>	Displays the VLAN ID. The range is from 1 to 4094.
	group	(Optional) Displays the group information.
	<i>group-id</i>	Group ID information in the format <i>A.B.C.D</i> .
	source	(Optional) Displays the source information.
	<i>source-id</i>	Source ID in the format <i>A.B.C.D</i> .

Command Default	None
-----------------	------

Command Modes	Global configuration mode
---------------	---------------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	This command requires an Enhanced Layer 2 license.
------------------	--

Examples	This example shows how to display the FabricPath IS-IS redistribute mroute information: <pre>switch# show fabricpath isis ip redistribute mroute</pre>
----------	---

Related Commands	Command	Description
	fabricpath domain default	Enables FabricPath Layer 2 IS-IS.

Send comments to nexus5k-docfeedback@cisco.com

show fabricpath isis protocol

To display information about the FabricPath Intermediate System-to-Intermediate System (IS-IS) protocol, use the **show fabricpath isis protocol** command.

show fabricpath isis protocol

Syntax Description	This command has no arguments or keywords.
---------------------------	--

Command Default	None
------------------------	------

Command Modes	Global configuration mode
----------------------	---------------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	This command requires an Enhanced Layer 2 license.
-------------------------	--

Examples	This example shows how to display information about the FabricPath IS-IS protocol:
-----------------	--

```
switch1# show fabricpath isis protocol

Fabricpath IS-IS domain : default
  System ID : 0005.73a3.ba3c  IS-Type : L1
  SAP : 432  Queue Handle : 11
  Maximum LSP MTU: 1492
  Graceful Restart enabled. State: Inactive
  Last graceful restart status : none
  Metric-style : advertise(wide), accept(wide)
  Start-Mode: Complete [Start-type configuration]
  Area address(es) :
    00
  Process is up and running
  CIB ID: 4
  Interfaces supported by Fabricpath IS-IS :
  Level 1
  Authentication type and keychain not configured
  Authentication check specified
  MT-0 Ref-Bw: 400000
  Address family Swid unicast :
    Number of interface : 0
    Distance : 115
  L1 Next SPF: Inactive
switch#
```

Send comments to nexus5k-docfeedback@cisco.com

Related Commands

Command	Description
fabricpath domain default	Enables FabricPath Layer 2 IS-IS.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

show fabricpath isis route

To display the FabricPath Intermediate System-to-Intermediate System (IS-IS) routing table for unicast routes, use the **show fabricpath isis route** command.

show fabricpath isis route [**summary** | **detail**]

Syntax Description

summary	(Optional) Displays a summary of the IS-IS adjacency information.
detail	(Optional) Displays the detailed IS-IS adjacency detail information.

Command Default

None

Command Modes

Global configuration mode

Command History

Release	Modification
5.1(3)N1(1)	This command was introduced.

Usage Guidelines

This command requires an Enhanced Layer 2 license.

Examples

This example shows how to display detailed information about the IS-IS route:

```
switch# show fabricpath isis route detail
Fabricpath IS-IS domain: default MT-0
Topology 0, Tree 0, Swid routing table

switch#
```

Related Commands

Command	Description
fabricpath domain default	Enables FabricPath Layer 2 IS-IS.

Send comments to nexus5k-docfeedback@cisco.com

show fabricpath isis rrm

To display information about the FabricPath Intermediate System-to-Intermediate System (IS-IS) Retransmit-Routing-Message (RRM), use the **show fabricpath isis rrm** command.

show fabricpath isis rrm [**gm**] { **ethernet** *slot/port* | **port-channel** *channel-number* }

Syntax Description	gm	(Optional) Displays the IS-IS GM-Send-Sequence-Number information.
	ethernet	Displays the IS-IS RRM information for an Ethernet interface.
	<i>slot/port</i>	Slot or chassis number and the port number. The slot number is from 1 to 2555 and the port number is from 1 to 128.
	port-channel	Displays the IS-IS RRM information for a port-channel interface.
	<i>channel-number</i>	Port-channel number. The range is from 1 to 4096.
Command Default	None	
Command Modes	Global configuration mode	
Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.
Usage Guidelines	This command requires an Enhanced Layer 2 license.	
Examples	This example shows how to display the FabricPath IS-IS RRM information:	
	switch# show fabricpath isis rrm gm ethernet 2/2	
Related Commands	Command	Description
	fabricpath domain default	Enables the FabricPath Layer 2 IS-IS.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

show fabricpath isis spf-log

To display information about FabricPath Intermediate System-to-Intermediate System (IS-IS) shortest-path-first (SPF) calculation statistics, use the **show fabricpath isis spf-log** command.

show fabricpath isis spf-log [detail]

Syntax Description	detail	(Optional) Displays the detailed IS-IS SPF information.
--------------------	--------	---

Command Default	None
-----------------	------

Command Modes	Global configuration mode
---------------	---------------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	This command requires an Enhanced Layer 2 license.
------------------	--

Examples	This example shows how to display the detailed information about the FabricPath IS-IS SPF:
----------	--

```
switch1# show fabricpath isis spf-log detail
Fabricpath IS-IS domain: default SPF information
Total number of SPF calculations: 1

Log entry (current/max): 1/20
Log entry: 01, Ago: 02:32:37, Date: Tue Oct 25 03:41:00 2011
  Level Instance   Init      SPF      IS Update  URIB Update  Total
  1      0x00000001  0.000062  0.000009  0.000009   0.000009    0.000411
  Level Node Count  Changed Reason
  1      1      2      0      Switch-id updated

switch#
```

Related Commands	Command	Description
	fabricpath domain default	Enables FabricPath Layer 2 IS-IS.

Send comments to nexus5k-docfeedback@cisco.com

show fabricpath isis srm

To display information about the FabricPath Intermediate System-to-Intermediate System (IS-IS) Send-Routing-Message (SRM), use the **show fabricpath isis srm** command.

show fabricpath isis srm [**gm**] { **ethernet** *slot/port* | **port-channel** *channel-number* }

Syntax Description	gm	(Optional) Displays the IS-IS GM-Send-Sequence-Number information.
	ethernet	Displays the Ethernet interface.
	<i>slot/port</i>	Slot or chassis number and the port number. The slot number is from 1 to 255 and the port number is from 1 to 128.
	port-channel	Displays the port-channel interface.
	<i>channel-number</i>	Port-channel number. The range is from 1 to 4096.

Command Default None

Command Modes Global configuration mode

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines This command requires an Enhanced Layer 2 license.

Examples This example shows how to display information about the FabricPath IS-IS SRM:

```
switch# show fabricpath isis srm gm ethernet 2/2
```

Related Commands	Command	Description
	fabricpath domain default	Enables FabricPath Layer 2 IS-IS.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

show fabricpath isis ssn

To display information about the FabricPath Intermediate System-to-Intermediate System (IS-IS) Send-Sequence-Number (SSN), use the **show fabricpath isis ssn** command.

show fabricpath isis ssn [**gm**] { **ethernet** *slot/port* | **port-channel** *channel-number* }

Syntax Description	gm	(Optional) Displays the IS-IS GM-Send-Sequence-Number information.
	ethernet	Displays the Ethernet interface.
	<i>slot/port</i>	Slot or chassis number and the port number. The slot number is from 1 to 255 and the port number is from 1 to 128.
	port-channel	Specifies the port-channel interface.
	<i>channel-number</i>	Port-channel number. The range is from 1 to 4096.
Command Default	None	
Command Modes	Global configuration mode	
Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.
Usage Guidelines	This command requires an Enhanced Layer 2 license.	
Examples	This example shows how to display FabricPath IS-IS Send-Sequence-Number information:	
	switch# show fabricpath isis ssn gm port-channel 400	
Related Commands	Command	Description
	fabricpath domain default	Enables FabricPath Layer 2 IS-IS.

Send comments to nexus5k-docfeedback@cisco.com

show fabricpath isis statistics

To display information about the FabricPath Intermediate System-to-Intermediate System (IS-IS) protocol statistics, use the **show fabricpath isis statistics** command.

show fabricpath isis statistics

Syntax Description	This command has no arguments or keywords.
---------------------------	--

Command Default	None
------------------------	------

Command Modes	Global configuration mode
----------------------	---------------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	This command requires an Enhanced Layer 2 license.
-------------------------	--

Examples	This example shows how to display information about the FabricPath IS-IS protocol statistics:
-----------------	---

```
switch# show fabricpath isis statistics
Fabricpath IS-IS domain:      default
SPF calculations:            1
LSPs sourced:                2
LSPs refreshed:              18
LSPs purged:                 0
Buffers U2RIB:               0
Buffers M2RIB:               0
Buffers PIXM:                0
Swid Updates:                2
Ftag Updates:                0

switch#
```

Related Commands	Command	Description
	fabricpath domain default	Enables FabricPath Layer 2 IS-IS.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

show fabricpath isis switch-id

To display switch IDs and reachability information in the topology, use the **show fabricpath isis switch-id** command.

show fabricpath isis switch-id

Syntax Description This command has no arguments or keywords.

Command Default None

Command Modes Global configuration mode

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines This command requires an Enhanced Layer 2 license.

Examples This example shows how to display the switch ID database:

```
switch# show fabricpath isis switch-id
```

```
Fabricpath IS-IS domain: default
```

```
Fabricpath IS-IS Switch-ID Database
```

```
Legend: C - Confirmed, T - tentative, W - swap
```

```
        S - sticky, E - Emulated Switch
```

```
        '*' - this system
```

```
System-ID      Primary  Secondary  Reachable  Bcast-Priority
```

```
MT-0
```

```
0005.73a3.ba3c* 2590[C]      0[C]  Yes      64
```

```
switch#
```

Related Commands	Command	Description
	fabricpath domain default	Enables FabricPath Layer 2 IS-IS.

Send comments to nexus5k-docfeedback@cisco.com

show fabricpath isis topology summary

To display information about the Intermediate System-to-Intermediate System (IS-IS) summary topology, use the **show fabricpath isis topology summary** command.

show fabricpath isis topology summary

Syntax Description	This command has no arguments or keywords.
---------------------------	--

Command Default	None
------------------------	------

Command Modes	Global configuration mode
----------------------	---------------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	This command requires an Enhanced Layer 2 license.
-------------------------	--

Examples	This example shows how to display information about the FabricPath IS-IS summary topology:
-----------------	--

```
switch# show fabricpath isis topology summary
Fabricpath IS-IS domain: default FabricPath IS-IS Topology Summary
MT-0
  Configured interfaces:
  Number of trees: 2
    Tree id: 1, ftag: 0, root system: 0000.0000.0000, 0
    Tree id: 2, ftag: 0, root system: 0000.0000.0000, 0
switch#
```

Related Commands	Command	Description
	fabricpath domain default	Enables FabricPath Layer 2 IS-IS.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

show fabricpath isis traffic

To display information about the FabricPath Intermediate System-to-Intermediate System (IS-IS) traffic, use the **show fabricpath isis traffic** command.

show fabricpath isis traffic {**ethernet** *slot/port* | **port-channel** *channel-number*}

Syntax Description		
ethernet		Displays the Ethernet interface.
<i>slot/port</i>		Slot or chassis number and the port number. The slot number is from 1 to 255 and the port number is from 1 to 128.
port-channel		Displays the port-channel interface.
<i>channel-number</i>		Port-channel number. The range is from 1 to 4096.

Command Default	None
------------------------	------

Command Modes	Global configuraion mode
----------------------	--------------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	This command requires an Enhanced Layer 2 license.
-------------------------	--

Examples	This example shows how to display information about the FabricPath IS-IS traffic:
-----------------	---

```
switch1# show fabricpath isis traffic
Fabricpath IS-IS domain: default
Fabricpath IS-IS Traffic:
PDU           Received      Sent    RcvAuthErr  OtherRcvErr  ReTransmit
P2P-IIH       0              0        0            0            n/a
CSNP          0              0        0            0            n/a
PSNP          0              0        0            0            n/a
LSP           0              0        0            0            0

switch#
```

Related Commands	Command	Description
	fabricpath domain default	Enables FabricPath Layer 2 IS-IS.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

show fabricpath isis trees

To display information about the FabricPath Intermediate System-to-Intermediate System (IS-IS) trees, use the **show fabricpath isis trees** command.

show fabricpath isis trees [**multidestination** *tree-id*]

Syntax Description	multidestination	(Optional) Displays the multidestination information.
	<i>tree-id</i>	Tree identifier. The range is from 1 to 2.

Command Default	None
-----------------	------

Command Modes	Any command mode
---------------	------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	This command requires an Enhanced Layer 2 license.
------------------	--

Examples	This example shows how to display information about the FabricPath IS-IS tree multidestination:
----------	---

```
switch# show fabricpath isis trees multidestination 1
Fabricpath IS-IS domain: default
Note: The metric mentioned for multidestination tree is from the root of that tree to that switch-id

MT-0
Topology 0, Tree 1, Swid routing table

switch#
```

Related Commands	Command	Description
	fabricpath domain default	Enables FabricPath Layer 2 IS-IS.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

show fabricpath isis vlan-range

To display VLANs in the FabricPath Intermediate System-to-Intermediate System (IS-IS) topology, use the **show fabricpath isis vlan-range** command.

show fabricpath isis vlan-range

Syntax Description This command has no arguments or keywords.

Command Default None

Command Modes Any command mode

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines This command requires an Enhanced Layer 2 license.

Examples This example shows how to display VLANs in the FabricPath IS-IS topology:

```
switch# show fabricpath isis vlan-range
Fabricpath IS-IS domain: default
MT-0
switch#
```

Related Commands	Command	Description
	fabricpath domain default	Enables FabricPath Layer 2 IS-IS.

Send comments to nexus5k-docfeedback@cisco.com

show fabricpath load-balance

To display FabricPath load-balancing information, use the **show fabricpath load-balance** command.

show fabricpath load-balance

Syntax Description	This command has no arguments or keywords.
---------------------------	--

Command Default	None
------------------------	------

Command Modes	Any command mode
----------------------	------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines



Note

The **show fabricpath load-balance** cannot be executed by any users without admin privileges.

This command requires an Enhanced Layer 2 license.

Examples

This example shows how to display FabricPath load-balancing information:

```
switch# show fabricpath load-balance
ECMP load-balancing configuration:
L3/L4 Preference: Mixed
Hash Control: Symmetric
Rotate amount: 7 bytes
Use VLAN: TRUE

switch#
```

Related Commands	Command	Description
	fabricpath load-balance	Displays FabricPath load-balancing parameters.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

show fabricpath load-balance multicast

To display FabricPath load-balancing information for the multicast load-balancing scheme, use the **show fabricpath load-balance multicast** command.

show fabricpath load-balance multicast ftag-selected vlan *vlan-ID* macg *MAC-addr*

Syntax Description	ftag-selected	Displays the multicast load-balancing parameters for the FabricPath FTAG.
	vlan <i>vlan-ID</i>	Displays load-balancing for FabricPath VLANs. The range is from 1 to 4094.
	macg <i>MAC-addr</i>	Displays the load-balancing parameters for the multicast group MAC address. The format is EEEE.EEEE.EEEE.

Command Default	None
------------------------	------

Command Modes	Any command mode
----------------------	------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	This command requires an Enhanced Layer 2 license.
-------------------------	--

Examples	This example shows how to display FabricPath load-balancing forwarding information for the multicast load-balancing scheme:
-----------------	---

```
switch# show fabricpath load-balance multicast ftag-selected vlan 10 macg 0100.5E10.1010
```

Related Commands	Command	Description
	fabricpath load-balance	Displays FabricPath load-balancing parameters.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

show fabricpath load-balance unicast

To display FabricPath load-balancing information for the unicast load-balancing scheme, use the **show fabricpath load-balance unicast** command.

```
show fabricpath load-balance unicast forwarding-path ftag ftag-ID switchid switch-ID src-mac
MAC-addr dst-mac MAC-addr [dst-ip ip-addr] [dst-ipv6 ipv6-addr] [l4-dst-port l4-dest-port]
[l4-src-port l4-src-port] [src-ip ip-addr] [src-ipv6 ipv6-addr] [vlan vlan-ID]
```

Syntax	Description
forwarding-path	Identifies the FabricPath that forwards the packet.
ftag <i>ftag-ID</i>	Displays the load-balancing parameters for the FabricPath FTAG. The FTAG value is from 0 to 4,294,967,295.
switchid <i>switch-ID</i>	Displays the load-balancing parameters for a specific FabricPath switch ID. The switch ID is from 0 to 4,294,967,295.
src-mac	Displays the load-balancing parameters for the source MAC address.
<i>MAC-addr</i>	MAC address. The format is EE:EE:EE:EE:EE:EE.
dst-mac	Displays the load-balancing parameters for the destination MAC address.
dst-ip	(Optional) Displays the load-balancing parameters for the destination IPv4 address.
<i>ip-addr</i>	IPv4 address. The format is A.B.C.D.
dst-ipv6	(Optional) Displays the load-balancing destination hash parameters.
<i>ipv6-addr</i>	IPv6 address. The format is EE:EE::EE:EE.
l4-dst-port <i>l4-dest-port</i>	(Optional) Displays the destination TCP or UDP port information used in hashing. The port number is from 0 to 65535.
l4-src-port <i>l4-src-port</i>	(Optional) Displays the source TCP or UDP port information used in hashing. The port number is from 0 to 65535.
src-ip	(Optional) Displays the load-balancing parameters for the source IPv4 address.
src-ipv6	(Optional) Displays the load-balancing source hash parameters.
vlan <i>vlan-ID</i>	(Optional) Displays the load-balancing information for FabricPath VLANs. The range is from 1 to 4094.

Command Default None

Command Modes Any command mode

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines This command requires an Enhanced Layer 2 license.

Send comments to nexus5k-docfeedback@cisco.com

Examples

This example shows how to display FabricPath load-balancing forwarding information for the unicast load-balancing scheme:

```
switch# show fabricpath load-balance unicast forwarding-path ftag 1 switchid 200 src-mac  
00:10:20:30:40:50 dst-mac 00:30:40:50:60:70 vlan 200
```

This example shows how to display FabricPath load-balance hashing information for the unicast load-balancing scheme:

```
switch# show fabricpath load-balance unicast forwarding-path ftag 1 switchid 232 src-mac  
0000.1234.5678 dst-mac 0000.3452.4567 src-ipv6 12:34::56:78 dst-ipv6 01:34::56:78  
14-dst-port 100 14-src-port 435 vlan 200
```

Missing params will be substituted by 0's.

```
crc8_hash: 229
```

```
This flow selects interface Po400
```

```
switch#
```

Related Commands

Command	Description
fabricpath load-balance	Displays FabricPath load-balancing parameters.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

show fabricpath route

To display FabricPath route information, use the **show fabricpath route** command.

```
show fabricpath route [detail [hex] | hex | topology {topology_ID [switchid switch-ID] | all}
[detail | hex]]
```

Syntax Description	detail	(Optional) Displays detailed information.
	hex	(Optional) Displays the switch IDs in hexadecimal.
	topology topology_ID	(Optional) Displays the topology information. The topology value is from 0 to 63.
	switchid	(Optional) Displays the switch ID.
	switch-ID	Switch ID value. The range is from 0 to 16383.

Command Default None

Command Modes Any command mode

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines This command requires an Enhanced Layer 2 license.

Examples This example shows how to display the detailed information about the FabricPath route:

```
switch# show fabricpath route detail
FabricPath Unicast Route Table
'a/b/c' denotes ftag/switch-id/subswitch-id
'[x/y]' denotes [admin distance/metric]
ftag 0 is local ftag
subswitch-id 0 is default subswitch-id
```

```
FabricPath Unicast Route Table for Topology-Default
```

```
0/2590/0, number of next-hops: 0
via ---- , [60/0], 0 day/s 02:57:18, local
switch#
```

This example shows how to display the information about the FabricPath route:

```
switch# show fabricpath route
FabricPath Unicast Route Table
'a/b/c' denotes ftag/switch-id/subswitch-id
'[x/y]' denotes [admin distance/metric]
ftag 0 is local ftag
```

Send comments to nexus5k-docfeedback@cisco.com

```
subswitch-id 0 is default subswitch-id
```

```
FabricPath Unicast Route Table for Topology-Default
```

```
0/2590/0, number of next-hops: 0  
    via ---- , [60/0], 0 day/s 02:58:05, local  
switch#
```

Related Commands

Command	Description
show running-config fabricpath	Displays the current FabricPath configuration.

Send comments to nexus5k-docfeedback@cisco.com

show fabricpath switch-id

To display the FabricPath switch ID, use the **show fabricpath switch-id** command.

show fabricpath switch-id [local]

Syntax Description	local (Optional) Displays the local switch ID information.
---------------------------	---

Command Default	None
------------------------	------

Command Modes	Any command mode
----------------------	------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	This command requires an Enhanced Layer 2 license.
-------------------------	--

Examples	This example shows how to display the FabricPath switch ID:
	<pre>switch# show fabricpath switch-id FABRICPATH SWITCH-ID TABLE Legend: '*' - this system ===== SWITCH-ID SYSTEM-ID FLAGS STATE STATIC EMULATED -----+-----+-----+-----+-----+----- *2590 0005.73a3.ba3c Primary Confirmed No No Total Switch-ids: 1 O2-48_Mgmt-2(config)# O2-48_Mgmt-2(config)# show fabricpath s? switch-id Switch ID system-id System-id switch#</pre>

This example shows how to display the local FabricPath switch ID:

```
switch# show fabricpath switch-id local
Switch-Id: 2590
System-Id: 0005.73a3.ba3c
switch#
```

Related Commands	Command	Description
	fabricpath switch-id (FabricPath)	Displays the FabricPath switch ID.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

show fabricpath system-id

To display information about the FabricPath network by the system ID, use the **show fabricpath system-id** command.

show fabricpath system-id {*mac-address*}

Syntax Description	<i>mac-address</i>	MAC address.
---------------------------	--------------------	--------------

Command Default	None
------------------------	------

Command Modes	Any command mode
----------------------	------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	This command requires an Enhanced Layer 2 license.
-------------------------	--

Examples	This example shows how to display information about the FabricPath network by the system ID: <pre>switch# show fabricpath system-id 0005.73a3.ba3c Switch-Id: 2590 State: Confirmed switch#</pre>
-----------------	--

Related Commands	Command	Description
	show running-config fabricpath	Displays information about the current FabricPath configuration.

Send comments to nexus5k-docfeedback@cisco.com

show fabricpath timers

To display settings for the allocate-delay, linkup-delay, and transition-delay timers for the FabricPath network by the system ID, use the **show fabricpath timers** command.

show fabricpath timers

Syntax Description	This command has no arguments or keywords.
---------------------------	--

Command Default	None
------------------------	------

Command Modes	Any command mode
----------------------	------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	This command requires an Enhanced Layer 2 license.
-------------------------	--

Examples	This example shows how to display FabricPath timers:
-----------------	--

```
switch# show fabricpath timers
Allocate Delay Timer      :   10
Transition Delay Timer    :   10
Link-up Delay Timer       :   10
switch#
```

Related Commands	Command	Description
	fabricpath timers	Configures the FabricPath timers.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

show fabricpath topology

To display information about the FabricPath Intermediate System-to-Intermediate System (IS-IS) topology, use the **show fabricpath topology** command.



Note

Cisco Nexus 5000 series only supports 2 topologies; the default or base topology (topology 0), and the local VLAN topology (topology 1).

```
show fabricpath topology [topology-ID {ftag [active | multicast | unicast] | interface [ethernet
slot/port | port-channel channel-number] | vlan [active]} | detail | ftag [active | multicast |
unicast] | interface [ethernet slot/port | port-channel channel-number | vlan [active]] | vlan
[active]]
```

Syntax Description

<i>topology-ID</i>	FabricPath topology ID. The range is from 0 to 63.
detail	(Optional) Displays the detailed FabricPath topology information.
ftag	(Optional) Displays the forwarding tag (FTAG) of a graph.
active	(Optional) Displays the active multicast FTAGs.
multicast	(Optional) Displays the multicast FTAGs.
unicast	(Optional) Displays the unicast FTAGs.
interface	Displays the interface topology information.
ethernet	(Optional) Displays the Ethernet interface.
<i>slot/port</i>	Slot or chassis number and the port number. The slot number is from 1 to 255 and the port number is from 1 to 128.
port-channel	(Optional) Displays the port-channel interface number.
<i>channel-number</i>	Port-channel number. The range is from 1 to 4096.
vlan	(Optional) Displays the VLANs in the Layer 2 topology.

Command Default

None

Command Modes

Any command mode

Command History

Release	Modification
5.1(3)N1(1)	This command was introduced.

Usage Guidelines

This command requires an Enhanced Layer 2 license.

Examples

This example shows how to display VLANs in a Layer 2 topology:

```
switch# show fabricpath topology 0 vlan
Topo-Description          TPG-ID    Configured VLAN List
```

Send comments to nexus5k-docfeedback@cisco.com

```
-----
0                               0           1-4095
switch#
```

This example shows how to display interface topology information:

```
switch# show fabricpath topology 0 interface
```

This example shows how to display active multicast FTAGs:

```
switch# show fabricpath topology 0 ftag
```

This example shows how to display the FabricPath topology interface VLANs:

```
switch# show fabricpath topology interface ethernet 2/1 vlan
```

Related Commands

Command	Description
fabricpath domain default	Enables FabricPath Layer 2 IS-IS.

Send comments to nexus5k-docfeedback@cisco.com

show feature-set

To display the status of all feature sets on the switch, use the **show feature-set** command.

show feature-set [*services feature-set-name*]

Syntax Description	services	Displays the services associated with a feature set.
	<i>feature-set-name</i>	Name of the service or feature set.

Command Default	None
------------------------	------

Command Modes	Any command mode
----------------------	------------------

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines	This command requires an Enhanced Layer 2 license.
-------------------------	--

Examples	This example shows how to display the status of a feature set:
-----------------	--

```
switch# show feature-set
Feature Set Name      ID      State
-----
fabricpath            2       enabled
virtualization        4       uninstalled
switch#
```

This example shows how to display the services associated with the FabricPath feature set:

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

Related Commands	Command	Description
	feature-set fabricpath	Enables the FabricPath feature set on the switch.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

show mroute

To display the Layer 2 (l2) or FabricPath multicast route database, use the **show mroute** command.

```
show {l2 | fabricpath} mroute {[vdc_omf] | [vlan vlanid] {[omf] | [flood] | [source {srcaddr |
ipv6srcaddr}]} [group {groupaddr | ipv6groupaddr}]} [resolved] [ftag ftag-id] [hex]}
```

Syntax Description

l2	Displays Layer 2 information.
fabricpath	Displays FabricPath information.
vdc_omf	(Optional) Displays the virtual device context (VDC) Optimized Multicast Flooding (OMF) route.
vlan	(Optional) Displays the VLAN ID.
<i>vlan-id</i>	(Optional) VLAN ID. The range is from 1 to 4096.
omf	(Optional) Displays the VLAN OMF route.
flood	(Optional) Displays the VLAN flood routes.
source	(Optional) Displays the source IP address.
<i>srcaddr</i>	IPv4 source address.
<i>ipv6srcaddr</i>	IPv6 source address.
group	(Optional) Displays the group address.
<i>groupaddr</i>	IPv4 group address.
<i>ipv6groupaddr</i>	IPv6 group address.
resolved	(Optional) Displays the resolved switch ID next hop's underlying interfaces.
ftag	(Optional) Displays the FTAG number.
<i>ftag-id</i>	Forwarding tag (FTAG) ID. The range is from 1 to 1024.
hex	(Optional) Displays the switch IDs in hexadecimal.

Command Default

None

Command Modes

Any command mode

Command History

Release	Modification
5.1(3)N1(1)	This command was introduced.

Usage Guidelines



Note

l2 can be used interchangeably with FabricPath.

This command requires an Enhanced Layer 2 license.

Send comments to nexus5k-docfeedback@cisco.com

Examples

This example shows how to display the VLAN flood routes in the FabricPath multicast route database:

```
switch# show fabricpath mroute flood
```

This example shows how to display the resolved switch ID of the next hop's underlying interfaces:

```
switch# show 12 mroute resolved
```

Related Commands

Command	Description
fabricpath load-balance	Displays FabricPath load-balancing parameters.
show running-config fabricpath	Displays the current FabricPath configuration.

[Send comments to nexus5k-docfeedback@cisco.com](mailto:nexus5k-docfeedback@cisco.com)

show multicast trees

To display the Layer 2 (l2) or FabricPath multicast tree database, use the **show multicast trees** command.

show {**l2** | **fabricpath**} **multicast trees** [**topo** *topo-id*] [**ftag** *ftag-id*] [**hex**]

Syntax Description	l2	Displays Layer 2 information.
	fabricpath	Displays FabricPath information.
	topo	(Optional) Displays the topology instance.
	<i>topo-id</i>	Topology ID. The range is from 0 to 64.
	ftag	(Optional) Displays the FTAG number.
	<i>ftag-id</i>	Forwarding tag (FTAG) ID. The range is from 1 to 1024.
	hex	(Optional) Displays the switch IDs in hexadecimal.

Command Default None

Command Modes EXEC mode

Command History	Release	Modification
	5.1(3)N1(1)	This command was introduced.

Usage Guidelines This command requires an Enhanced Layer 2 license.

Examples This example shows how to display the FabricPath multicast tree database:

```
switch# show fabricpath multicast trees
```

This example shows how to display the FTAG number of the Layer 2 multicast trees:

```
switch# show l2 multicast trees ftag 1
```

This example shows how to display the Layer 2 multicast tree database:

```
switch# show l2 multicast trees
```

Related Commands	Command	Description
	show l2 route	Displays FabricPath route information.
	show fabricpath route	Displays FabricPath route information.

Send comments to nexus5k-docfeedback@cisco.com

show running-config fabricpath

To display FabricPath running system configuration information, use the **show running-config fabricpath** command.

show running-config fabricpath [**domain default** | **switch-id** | **topology**] [**all**]

Syntax Description

domain	(Optional) Displays the FabricPath Intermediate System-to-Intermediate System (IS-IS) domain configuration information.
default	(Optional) Displays the FabricPath IS-IS default FabricPath domain information.
switch-id	(Optional) Displays the FabricPath switch ID configuration information.
topology	(Optional) Displays the FabricPath topology information.
all	(Optional) Displays the running configuration, including the defaults.

Command Default

None

Command Modes

Any command mode

Command History

Release	Modification
5.1(3)N1(1)	This command was introduced.

Usage Guidelines

This command requires an Enhanced Layer 2 license.

Examples

This example shows how to display FabricPath running system configuration information:

```
switch# show running-config fabricpath

!Command: show running-config fabricpath
!Time: Tue Oct 25 07:55:05 2011

version 5.1(3)N1(1)
install feature-set fabricpath
feature-set fabricpath

vpc domain 1
fabricpath domain default

switch#
```

Send comments to nexus5k-docfeedback@cisco.com

Related Commands	Command	Description
	fabricpath domain default	Enables FabricPath Layer 2 IS-IS.

■ show running-config fabricpath

Send comments to nexus5k-docfeedback@cisco.com

Send comments to nexus5k-docfeedback@cisco.com



T Commands

This chapter describes the Cisco NX-OS FabricPath commands that begin with T.

Send comments to nexus5k-docfeedback@cisco.com

topology

To configure a Layer 2 topology for FabricPath Intermediate System-to-Intermediate System (ISIS), use the **topology** command. To return to the default setting, use the **no** form of this command.



Note

Cisco Nexus 5000 series only supports 2 topologies; the default or base topology (topology 0), and the local VLAN topology (topology 1).

topology *topology-number*

no topology [*topology-number*]

Syntax Description

<i>topology-number</i>	Topology number. The range is form 1 to 63.
------------------------	---

Command Default

None

Command Modes

FabricPath IS-IS configuration mode

Command History

Release	Modification
5.1(3)N1(1)	This command was introduced.

Usage Guidelines

This command requires an Enhanced Layer 2 license.

Examples

This example shows how to configure a FabricPath IS-IS topology:

```
switch# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
switch(config)# fabricpath domain default
switch(config-fabricpath-isis)# topology 1
switch(config-fabricpath-isis)#
```

Related Commands

Command	Description
fabricpath domain default	Enables FabricPath Layer 2 IS-IS.