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Cisco Nexus 7000 Series NX-OS Overlay Transport Virtualization Command Reference

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Cisco Nexus 7000 Series NX-OS Overlay Transport Virtualization Command Reference

CONTENTS

New and Changed Information

This chapter provides release-specific information for each new and changed feature in the *Cisco Nexus 7000 Series NX-OS Overlay Transport Virtualization Command Reference*. The latest version of this document is available at the following Cisco website:
http://www.cisco.com/en/US/products/ps9402/prod_command_reference_list.html

To check for additional information about Cisco Nexus 7000 Series NX-OS Release 5.2(1), see the *Cisco Nexus 7000 Series NX-OS Release Notes, Release 5.x* available at the following Cisco website:
http://www.cisco.com/en/US/products/ps9402/prod_release_notes_list.html

Table 1 summarizes the new and changed features for the *Cisco Nexus 7000 Series NX-OS Overlay Transport Virtualization Command Reference* and tells you where they are documented.

Table 1 New and Changed Features for Release 5.2(1)

Feature	Description	Changed in Release	Where Documented
OTV Adjacency Server	Added support for unicast cores using an adjacency server	5.2(1)	**otv adjacency-server unicast-only** **otv use-adjacency-server unicast-only**

Preface

This preface describes the audience, organization, and conventions of the *Cisco Nexus 7000 Series NX-OS Overlay Transport Virtualization Command Reference*. It also provides information on how to obtain related documentation.

This chapter includes the following sections:

Audience

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

Organization

This reference is organized as follows:

Chapter and Title	Description
Chapter 1, “Overlay Transport Virtualization Commands”	Describes the Cisco NX-OS Overlay Transport Virtualization (OTV) commands.

Document Conventions

Command descriptions use these conventions:

Convention	Description
boldface font	Commands and keywords are in boldface.
italic font	Arguments for which you supply values are in italics.

[ ]	Elements in square brackets are optional.
[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.
`italic screen font`	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.

Tip Means *the following information will help you solve a problem.*

Related Documentation

Cisco NX-OS includes the following documents:

Release Notes

Cisco Nexus 7000 Series NX-OS Release Notes, Release 5.x

NX-OS Configuration Guides

Cisco Nexus 7000 Series NX-OS Configuration Examples, Release 5.x

Configuring the Cisco Nexus 2000 Series Fabric Extender

Cisco Nexus 7000 Series NX-OS FabricPath Configuration Guide

Configuring Feature Set for FabricPath

Cisco NX-OS FCoE Configuration Guide for Cisco Nexus 7000 and Cisco MDS 9500

Cisco Nexus 7000 Series NX-OS Fundamentals Configuration Guide, Release 5.x
Cisco Nexus 7000 Series NX-OS High Availability and Redundancy Guide, Release 5.x
Cisco Nexus 7000 Series NX-OS Interfaces Configuration Guide, Release 5.x
Cisco Nexus 7000 Series NX-OS Layer 2 Switching Configuration Guide, Release 5.x
Cisco Nexus 7000 Series NX-OS LISP Configuration Guide
Cisco Nexus 7000 Series NX-OS MPLS Configuration Guide
Cisco Nexus 7000 Series NX-OS Multicast Routing Configuration Guide, Release 5.x
Cisco Nexus 7000 Series NX-OS OTV Configuration Guide
Cisco Nexus 7000 Series OTV Quick Start Guide
Cisco Nexus 7000 Series NX-OS Quality of Service Configuration Guide, Release 5.x
Cisco Nexus 7000 Series NX-OS SAN Switching Configuration Guide
Cisco Nexus 7000 Series NX-OS Security Configuration Guide, Release 5.x
Cisco Nexus 7000 Series NX-OS System Management Configuration Guide, Release 5.x
Cisco Nexus 7000 Series NX-OS Unicast Routing Configuration Guide, Release 5.x
Cisco Nexus 7000 Series NX-OS Virtual Device Context Configuration Guide, Release 5.x
Cisco Nexus 7000 Series NX-OS Virtual Device Context Quick Start, Release 5.x

NX-OS Command References

Cisco Nexus 7000 Series NX-OS Command Reference Master Index
Cisco Nexus 7000 Series NX-OS FabricPath Command Reference
Cisco NX-OS FCoE Command Reference for Cisco Nexus 7000 and Cisco MDS 9500
Cisco Nexus 7000 Series NX-OS Fundamentals Command Reference
Cisco Nexus 7000 Series NX-OS High Availability Command Reference
Cisco Nexus 7000 Series NX-OS Interfaces Command Reference
Cisco Nexus 7000 Series NX-OS Layer 2 Switching Command Reference
Cisco Nexus 7000 Series NX-OS LISP Command Reference
Cisco Nexus 7000 Series NX-OS MPLS Command Reference
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Cisco Nexus 7000 Series NX-OS OTV Command Reference
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Cisco Nexus 7000 Series NX-OS Security Command Reference
Cisco Nexus 7000 Series NX-OS System Management Command Reference
Cisco Nexus 7000 Series NX-OS Unicast Routing Command Reference
Cisco Nexus 7000 Series NX-OS Virtual Device Context Command Reference

Other Software Documents

Cisco NX-OS Licensing Guide

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Cisco Nexus 7000 Series NX-OS MIB Quick Reference

Cisco Nexus 7000 Series NX-OS Software Upgrade and Downgrade Guide, Release 5.x

Cisco NX-OS System Messages Reference

Cisco Nexus 7000 Series NX-OS Troubleshooting Guide

Cisco NX-OS XML Interface User 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 a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS Version 2.0.

Overlay Transport Virtualization Commands

This chapter describes the Overlay Transport Virtualization (OTV) commands Cisco NX-OS for the Nexus 7000 Series devices.

authentication (OTV)

To configure an authentication keychain string for edge device authentication, use the **authentication** command. To return to the default setting, use the **no** form of this command.

authentication key-chain *keychain-name*

no authentication key-chain *keychain-name*

Syntax Description

keychain-name	Authentication keychain. The maximum length is from 1 to 16 characters.

Defaults

None

Command Modes

OTV ISI VPN

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

The **authentication** command is used 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.

This command requires a Transport Services license.

Examples

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

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# otv-isis default
switch(config-router)# vpn name
switch(config-router-vrf)# authentication keychain OTVKeys
switch(config-router-vrf)#
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

authentication-check (OTV)

To enable an authentication check of hello messages between Overlay Transport Virtualization (OTV) edge devices, 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.

Defaults

Enabled

Command Modes

OTV ISIS VPN

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

The **authentication-type** command controls authentication checking on incoming hello protocol data units (PDUs).

This command requires a Transport Services license.

Examples

This example shows how to enable authentication of hello messages between OTV edge devices:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# otv-isis default
switch(config-router)# vpn name
switch(config-router-vrf)# authentication-check
switch(config-router-vrf)#
```

Related Commands

Command	Description
show otv	Displays information about OTV.

authentication-type (OTV)

To configure Overlay Transport Virtualization (OTV) 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 Message Digest (MD5) authentication.

Defaults

Enabled

Command Modes

OTV ISIS VPN

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	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 a Transport Services license.

Examples

This example shows how to specify cleartext authentication:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# otv-isis default
switch(config-router)# vpn name
switch(config-router-vrf)# authentication-type cleartext
switch(config-router-vrf)#
```

This example shows how to specify Message Digest (MD5) authentication:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# otv-isis default
switch(config-router)# vpn name
switch(config-router-vrf)# authentication-type md5
switch(config-router-vrf)#
```

Related Commands

Command	Description
show otv	Displays information about OTV.

clear otv arp-nd

To clear log Address Resolution Protocol (ARP) and Neighbor Discovery (ND) packets caching information, use the **clear otv arp-nd** command.

clear otv arp-nd

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Note IPv6 is not supported in this release.

Examples

This example shows how to clear log ARP/ND caching information:

```
switch(config)# clear otv arp-nd
switch(config)#
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

clear otv isis adjacency

To clear the Intermediate-System-to-Intermediate System (IS-IS) adjacency state, use the **clear otv isis adjacency** command.

clear otv isis adjacency [*** vpn** {*vpn-name* | **all**} | **overlay** *interface* **vpn** {*vpn-name* | **all**} | **system-id** *sid* **vpn** {*vpn-name* | **all**}]

Syntax Description

*****	(Optional) Specifies IS-IS adjacencies on all interfaces.
vpn	(Optional) Specifies VPN information.
vpn-name	VPN name. The maximum length is 32 alphanumeric characters.
all	(Optional) Specifies all configured VPNs.
overlay	(Optional) Specifies an overlay interface.
interface	Specifies overlay interface number. The range is from 0 to 65535.
system-id	(Optional) Specifies the hostname or the system ID. It is 6 bytes long
sid	Specifies hostname or System ID (in the form of XXXX.XXXX.XXXX).

Defaults

None

Command Modes

Global configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to clear counters and reset adjacencies with neighbors:

```
switch# clear otv isis adjacency *
switch#
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

clear otv isis statistics

To clear Overlay Transport Virtualization (OTV) Intermediate-System-to-Intermediate System (IS-IS) protocol statistics, use the **clear otv isis statistics** command.

clear otv isis statistics [*** vpn** {*vpn-name* | **all**} | **overlay** *interface* **vpn** {*vpn-name* | **all**}]

Syntax Description

*****	(Optional) Specifies IS-IS adjacencies on all interfaces.
vpn	(Optional) Specifies VPN information.
vpn-name	Specifies VPN name. The maximum length is 32 alphanumeric characters.
all	(Optional) Specifies all configured VPNs.
overlay	(Optional) Specifies an overlay interface.
interface	Overlay interface number. The range is from 0 to 65535.

Defaults

None

Command Modes

Global configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to clear OTV IS-IS protocol statistics:

```
switch# clear otv isis statistics *
switch#
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

clear otv isis traffic

To clear Overlay Transport Virtualization (OTV) Intermediate-System-to-Intermediate System (IS-IS) traffic information, use the **clear otv isis traffic** command.

clear otv isis traffic [*** vpn** {*vpn-name* | **all**} | **overlay** *interface* **vpn** {*vpn-name* | **all**}]

Syntax Description

*****	(Optional) Specifies IS-IS adjacencies on all interfaces.
overlay	(Optional) Specifies an overlay interface.
interface	Overlay interface number. The range is from o to 65535.
vpn	(Optional) Specifies VPN information.
vpn-name	VPN name. The maximum length is 32 alphanumeric characters.
all	(Optional) Specifies all configured VPNs.

Defaults

None

Command Modes

Global configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to clear OTV IS-IS traffic information:

```
switch# clear otv isis traffic *
switch#
```

Command History

Command	Description
show otv isis	Displays the IS-IS status and configuration.

feature otv

To enable Overlay Transport Virtualization (OTV), use the **feature otv** command. To return to the default setting, use the **no** form of this command.

feature otv

no feature otv

Syntax Description

This command has no arguments or keywords.

Defaults

Disabled

Command Modes

Global configuration

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

You must use the **feature otv** command to enable the OTV functionality. The device does not display any OTV commands until you enable the feature.

This command requires a Transport Services license.

Examples

This example shows how to enable OTV functionality on the device:

```
switch# config t
switch(config)# feature otv
switch(config)#
```

Related Commands

Command	Description
show feature	Displays information about the features enabled on the device.

graceful-restart (OTV)

To enable graceful restart for the IS-IS process, use the **graceful-restart** command. To return to the default setting, use the **no** form of this command.

graceful-restart

no graceful-restart

Syntax Description

This command has no arguments or keywords.

Defaults

Disabled

Command Modes

OTV IS-IS VPN

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

Use the **graceful-restart** command to enable graceful restart for the IS-IS process.

This command requires a Transport Services license.

Examples

This example shows how to enable graceful restart for the IS-IS process:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# otv-isis default
switch(config-router)# vpn name
switch(config-router-vrf)# graceful-restart
switch(config-router-vrf)#
```

Related Commands

Command	Description
feature OTV	Enables OTV on this device.

graceful-restart t3 manual (OTV)

To change a manually set T3 default value for the Intermediate-System-to-Intermediate System (IS-IS) process, use the **graceful-restart t3 manual** command. To return to the default setting, use the **no** form of this command.

graceful-restart t3 manual *time*

no graceful-restart t3 manual *time*

Syntax Description

time	Time in seconds. The range is from 30 to 65535.

Defaults

60 seconds

Command Modes

OTV IS-IS VPN

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

Use the **graceful-restart t3 manual** command to set the T3 timer, as defined in RFC 3847.

This command requires a Transport Services license.

Examples

This example shows how to set the T3 timer for the IS-IS process:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# otv-isis default
switch(config-router)# vpn name
switch(config-router-vrf)# graceful-restart t3 manual 70
switch(config-router-vrf)#
```

Related Commands

Command	Description
feature OTV	Enables OTV on this device.

hostname dynamic (OTV)

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.

Defaults

ON

Command Modes

OTV IS-IS VPN

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to configure a dynamic hostname exchange for IS-IS: ---need to change this example

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# otv-isis default
switch(config-router)# vpn name
switch(config-router-vrf)# hostname dynamic
switch(config-router-vrf)#
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

interface overlay

To create an overlay interface and to enter the interface-overlay configuration mode, use the **interface overlay** command. To remove the overlay interface, use the **no** form of this command.

interface overlay *number*

no interface overlay *number*

Syntax Description

number	Number that you assign to the overlay interface. The range is from 0 to 65535.

Defaults

None

Command Modes

Global configuration (interface configuration mode)

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

Use the **interface overlay** command to do the following:

- Create an overlay interface
- Enter the interface-overlay configuration mode

Note You use the **feature otv** command to enable the Overlay Transport Virtualization (OTV) feature before you can create an overlay interface or access the interface-overlay configuration mode.

You do not have to remove the configuration before you remove the overlay interface.

This command requires a Transport Services license.

Examples

This example shows how to create an OTV overlay interface:

```
switch(config)# interface overlay 5
switch(config-if-overlay)#
```

Related Commands

Command	Description
show feature	Displays information about the features enabled on the device.
show otv	Displays information about OTV.

log-adjacency-changes (OTV)

To 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.

Defaults

ON

Command Modes

OTV IS-IS VPN

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

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

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# otv-isis default
switch(config-router)# vpn name
switch(config-router-vrf)# log-adjacency-changes
switch(config-router-vrf)#
```

Related Commands

Command	Description
feature OTV	Enables OTV on this device.

lsp-gen-interval (OTV)

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

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

Defaults

The defaults are as follows:

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

Command Modes

OTV IS-IS VPN

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

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

This command requires a Transport Services license. an Transport Services license.

Examples

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

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# otv-isis default
switch(config-router)# vpn name
switch(config-router-vrf)# lsp-gen-interval 9000 60 70
switch(config-router-vrf)#
```

Related Commands

Command	Description
feature OTV	Enables OTV on this device.

lsp-mtu (OTV)

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

bytes	Maximum LSP size in bytes. The range is from 128 to 4352.

Defaults

1392 bytes

Command Modes

OTV IS-IS VPN

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to set the maximum LSP size to 1500 bytes:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# otv-isis default
switch(config-router)# vpn name
switch(config-router-vrf)# lsp-mtu 1500
switch(config-router-vrf)#
```

Related Commands

Command	Description
feature OTV	Enables OTV on this device.

max-lsp-lifetime (OTV)

To configure the lifetime of maximum link-state packets (LSPs), 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

value	Maximum LSP lifetime in seconds. The range is from 1 to 65535.

Defaults

1200 seconds

Command Modes

OTV IS-IS VPN

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

The maximum LSP lifetime must be greater than the LSP refresh interval.

This command requires a Transport Services license.

Examples

This example shows how to set the maximum time that the linkstate packets persists to 11,000 seconds:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# otv-isis default
switch(config-router)# vpn name
switch(config-router-vrf)# max-lsp-lifetime 1300
switch(config-router-vrf)#
```

Related Commands

Command	Description
feature OTV	Enables OTV on this device.

net (OTV)

To configure an Intermediate System-to-Intermediate System (IS-IS) network entity title for the routing process, use the **net** command. To return to the default setting, use the **no** form of this command.

net *net*

no net *net*

Syntax Description

net	NET network services access point (NSAP) name or address for the IS-IS routing process.

Defaults

Backplane MAC address

Command Modes

OTV IS-IS VPN

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

If you explicitly configure the net on two different devices belonging to the same overlay, ensure that the area addresses match. If these do not match, the adjacency will not come up.

This command requires a Transport Services license.

Examples

This example shows how to configure a router with a NET that consists of the system ID 0000.0c11.1110 and area address 47.0004.044d.0001.00:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# otv-isis default
switch(config-router)# vpn name
switch(config-router-vrf)# net 47.0004.044d.0001.00
switch(config-router-vrf)#
```

Related Commands#

Command	Description
feature OTV	Enables OTV on this device.

otv adjacency-server unicast-only

To configure the local edge device as an adjacency server, use the **otv adjacency-server unicast-only** command. To remove the local server from acting as an adjacency server, use the **no** form of this command.

otv adjacency-server unicast-only

no otv adjacency-server unicast-only

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Overlay interface configuration

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to configure the local edge device as an adjacency server:

```
switch# configure terminal
switch(config)# interface overlay 5
switch(config-if-overlay)# otv adjacency-server unicast-only
```

This example shows how to remove the local edge device from acting as an adjacency server:

```
switch# configure terminal
switch(config)# interface overlay 5
switch(config-if-overlay)# no otv adjacency-server unicast-only
```

Related Commands

Command	Description
otv use-adjacency-server unicast-only	Configures the local edge device to use a remote adjacency server.
show otv adjacency	Displays the overlay transport virtualization (OTV) adjacency information.

otv control-group

To configure the IP multicast group address for the control and broadcast traffic for the specified Overlay Transport Virtualization (OTV) network, use the **otv control-group** command. To remove the multicast group address, use the **no** form of this command.

otv control-group *multicast-addr*

no otv control-group *multicast-addr*

Syntax Description

multicast-addr	External multicast group address for the OTV overlay network control traffic. The multicast group address is an IPv4 address in dotted decimal notation.

Defaults

None

Command Modes

Overlay interface configuration

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

Use the **otv control-group** command to configure the multicast group address for control traffic for the specified OTV overlay network and for customer broadcast traffic.

Note The OTV overlay interface cannot come up if you do not configure this command.

This command requires a Transport Services license.

Examples

This example shows how to configure the multicast group address for the OTV control traffic:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# interface overlay 1
switch(config-if-overlay)# otv control-group 239.1.1.1
switch(config-if-overlay)#
```

Related Commands

Command	Description
otv data-group	Configures multicast group addresses for OTV data traffic.
show feature	Displays information about the features enabled on the device.
show otv	Displays information about OTV.

otv data-group

To configure the list of core provider multicast prefixes for multicast data traffic, for the specified Overlay Transport Virtualization (OTV) network, use the **otv data-group** command. To remove the multicast group address, use the **no** form of this command.

otv data-group *multicast-addr/mask*

no otv data-group *multicast-addr/mask*

Syntax Description

multicast-addr/mask	Multicast group range used for multicast data traffic over the overlay network, in IPv4 dotted decimal notation. The maximum number of ranges is 8.

Defaults

None

Command Modes

Overlay interface configuration

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

Use the **otv data-group** command to configure the list of core provider multicast prefixes for multicast data traffic.

Note The OTV overlay interface cannot come up if you do not configure this command.

This command requires a Transport Services license.

Examples

This example shows how to configure the multicast group address for the OTV data traffic:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# interface overlay 1
switch(config-if-overlay)# otv control-group 239.1.1.1
switch(config-if-overlay)#
```

Related Commands

Command	Description
otv control-group	Configures the multicast address for OTV control traffic.

show feature	Displays information about the features enabled on the device.
show otv	Displays information about OTV.

otv extend-vlan

To enable VLANs to be part of the specified Overlay Transport Virtualization (OTV) network and enable OTV advertisements for these VLANs, use the **otv extend-vlan** command. To revert to the default setting, use the **no** form of this command.

otv extend-vlan *vlan-range* {**add** *vlan-range*| **remove** *vlan-range*}

no otv extend-vlan *vlan-range*

Syntax Description

vlan-range	VLANs that are associated with the specified OTV overlay. The range is from 1 to 3967 and from 4048 to 4093.
add	(Optional) Adds VLANs to the OTV network.
remove	(Optional) Removes VLANs from the OTV network.

Defaults

No VLANs are enabled for OTV advertisements.

Command Modes

Overlay interface configuration

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	Added the **add** and **remove** keywords.
5.0(3)	This command was introduced.

Usage Guidelines

Use the **otv extend-vlan** command to specify the VLAN or range of VLANs to be extended across the overlay network.

This command requires a Transport Services license.

Examples

This example shows how to associate VLANs with the specified OTV overlay:

```
switch(config)# interface overlay 5
switch(config-if-overlay)# otv extend-vlan 5-10,14
switch(config-if-overlay)#
```

This example shows how to add a VLAN with the specified OTV overlay:

```
switch(config)# interface overlay 5
switch(config-if-overlay)# otv extend-vlan 1-7, 9-15
switch(config-if-overlay)# otv extend-vlan add 8, 10
switch(config-if-overlay)#
```

This example shows how to remove a VLAN with the specified OTV overlay:

```
switch(config)# interface overlay 5
switch(config-if-overlay)# otv extend-vlan 1-7, 9-15
switch(config-if-overlay)# otv extend-vlan remove 1, 15
switch(config-if-overlay)#
```

Related Commands

Command	Description
show feature	Displays information about the features enabled on the device.
show otv vlan	Displays information about OTV VLANs.

otv isis csnp-interval

To configure an Overlay Transport Virtualization (OTV) Intermediate-System-to-Intermediate System (IS-IS) complete sequence number PDUs (CSNPs) interval in seconds, use the **otv isis csnp-interval** command. To return to the default setting, use the **no** form of this command.

otv isis csnp-interval *seconds*

no otv isis csnp-interval *seconds*

Syntax Description

seconds	Interval in seconds. The range is from 1 to 65535.

Defaults

10 seconds

Command Modes

Interface configuration

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

Use the **isis csnp-interval** command to configure the interval between CSNPs sent on the interface. This command applies only for the designated router (DR) for a specified interface. The CSNP interval can be configured independently for Level 1. Configuring the CSNP interval does not apply to serial point-to-point interfaces.

This command requires a Transport Services license.

Examples

This example shows how to specify the interval between CSNPs on an interface:

```
switch(config-if-overlay)# otv isis csnp-interval 100
switch(config-if-overlay)#
```

otv-isis default

To enter the OTV ISIS VPN configuration mode, use the **otv-isis default** command. To return to the default setting, use the **no** form of this command.

otv-isis default

no otv isis default

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

OTV ISIS VPN

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

You must add the VPN name or a second line in order to enter the OTV ISIS VPN mode.

This command requires a Transport Services license.

Examples

This example shows how to enter the OTV ISIS VPN configuration mode:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# otv-isis default
switch(config-router)# vpn name
switch(config-router-vrf)#
```

Related Commandss

Command	Description
show otv isis	Displays the Intermediate System-to-Intermediate System status and configuration.

otv isis hello-interval

To configure the hello interval in seconds, use the **otv isis hello-interval** command. To return to the default setting, use the **no** form of this command.

otv isis hello-interval *seconds*

no otv isis hello-interval *seconds*

Syntax Description

seconds	Interval in seconds. The range is from 1 to 65535.

Defaults

10 seconds

Command Modes

Interface configuration

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

Use the **otv isis hello-interval** command to configure the interval between the hello protocol data units (PDUs) sent on the interface.

This command requires a Transport Services license.

Examples

This example shows how to configure hello interval in seconds:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# interface overlay 1
switch(config-if-overlay)# otv isis hello-interval 30
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

otv isis hello-multiplier

To configure a multiplier that you can use to calculate the interval in which protocol data units (PDUs) must be received to keep the adjacency, use the **otv isis hello-multiplier** command. To return to the default setting, use the **no** form of this command.

otv isis hello-multiplier *multiplier*

no otv isis hello-multiplier *multiplier*

Syntax Description

multiplier	Hello multiplier value. The range is from 3 to 1000.

Defaults

3 seconds

Command Modes

Interface configuration

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

Use the **isis hello-multiplier** command to specify the multiplier that you can used to calculate the interval in which a hello PDU must be received to keep up the adjacency. Use the **isis hello-multiplier** command when hello packets are lost frequently and IS-IS adjacencies are failing unnecessarily. You can raise the hello multiplier and lower the hello interval (**isis hello-interval** command) to make the hello protocol more reliable without increasing the time required to detect a link failure.

This command requires a Transport Services license.

Examples

This example shows how to configure a multiplier for a hello holding time:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# interface overlay 1
switch(config-if-overlay)# otv isis hello-multiplier 30
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

otv isis hello-padding

To configure Overlay Transport Virtualization (OTV) intermediate-System-to-Intermediate System (IS-IS) hello Protocol data units (PDUs) to the full maximum transmission unit (MTU) length, use the **otv isis hello-padding** command. To return to the default setting, use the **no** form of this command.

otv isis hello-padding

no otv isis hello-padding

Syntax Description

This command has no arguments or keywords.

Defaults

ON

Command Modes

Interface configuration

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

Use the **isis hello-padding** command to control IS-IS hello PDU padding. You can disable hello padding to avoid wasting network bandwidth if the MTU of both interfaces is the same or for translational bridging. When you disable hello padding, Cisco routers still send the first five IS-IS hellos padded to the full MTU size, that are still to discover MTU mismatches.

This command requires a Transport Services license.

Examples

This example shows how to configure Overlay Transport Virtualization IS-IS hello PDUs to the full maximum transmission unit length:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# interface overlay 1
switch(config-if-overlay)# otv isis hello-padding
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

otv isis lsp-interval

To configure an Overlay Transport Virtualization (OTV) Intermediate System-to-Intermediate System (IS-IS) link-state packet (LSP) transmission interval, use the **otv isis lsp-interval** command. To return to the default setting, use the **no** form of this command.

otv isis lsp-interval *msec*

no otv isis lsp-interval *msec*

Syntax Description

msec	LSP transmission interval. The range is from 10 to 65535.

Defaults

33 milliseconds

Command Modes

Interface configuration

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

Use the **isis lsp-interval** command to specify the interval between LSP Protocol data unit (PDUs) sent on the interface during flooding.

This command requires an Transport Services license.

Examples

This example shows how to configure an LSP transmission interval:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# interface overlay 1
switch(config-if-overlay)# otv isis lsp-interval 30
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

otv isis metric

To configure the Overlay Transport Virtualization (OTV) metric on an interface, use the **otv isis metric** command. To return to the default setting, use the **no** form of this command.

otv isis metric *metric*

no otv isis metric *metric*

Syntax Description

metric	The range is from 1 to 16777215.

Defaults

None

Command Modes

Interface configuration

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to configure the metric for an interface:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# interface overlay 1
switch(config-if-overlay)# otv isis metric 30
switch(config-if-overlay)#
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

otv isis priority

To configure the Overlay Transport Virtualization (OTV) priority for a Designated Intermediate System (DIS) election on the interface, use the **otv isis priority** command. To return to the default setting, use the **no** form of this command.

otv isis priority *priority*

no otv isis priority *priority*

Syntax Description

priority	Priority value. The range is from 0 to 127.

Defaults

64

Command Modes

Interface configuration

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

Use the **otv isis priority** command to specify the priority on an Intermediate System-to-Intermediate System interface.

This command requires a Transport Services license.

Examples

This example shows how to configure the OTV priority for a DIS election on the interface:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# interface overlay 1
switch(config-if-overlay)# otv isis priority 1
switch(config-if-overlay)#
```

Related Commands

Command	Description
show otv isis	Displays IS-IS status and configuration.

otv join-interface

To associate an Overlay Transport Virtualization (OTV) overlay interface to an external interface, use the **otv join-interface** command. To remove that interface from the overlay interface, use the **no** form of this command.

otv join-interface {**ethernet** *slot/port* | **port-channel** *channel-number*}

no otv join-interface {**ethernet** *slot/port* | **port-channel** *channel-number*}

Syntax Description

ethernet *slot/port*	Specifies the slot and port number of the Ethernet interface.
port-channel *channel-number*	Specifies the identifying channel number. The range is from 1 to 4096.

Defaults

None

Command Modes

Overlay interface configuration

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

Use the **otv join-interface** command to specify the core uplink used for OTV control and multicast/broadcast data traffic. You can also enter this command on a Layer 3 Ethernet subinterface or a port-channel subinterface.

Note The OTV overlay interface cannot come up if you do not configure **otv join-interface** command.

This command requires a Transport Services license.

Examples

This example shows how to associate an external interface on the OTV edge device to the specified overlay interface:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# interface overlay 1
switch(config-if-overlay)# otv join-interface ethernet 1/2
switch(config-if-overlay)#
```

Related Commands

Command	Description
show feature	Displays information about the features enabled on the device.
show otv	Displays information about OTV.
interface overlay	Configures an OTV overlay interface.

otv site-vlan

To configure a VLAN on all local Overlay Transport Virtualization (OTV) edge devices that belong to the same local site, use the **otv site-vlan** command. To return to the default setting, use the **no** form of this command.

otv site-vlan *vlan-id*

no otv site-vlan *vlan-id*

Syntax Description

vlan-id	VLAN ID. The range is from 1 to 3967 and from 4048 to 4093.

Defaults

To send IS-IS hellos on a native VLAN (VLAN 1).

Command Modes

Global configuration

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

Use the **otv site-vlan** global configuration command to configure the site VLAN used to exchange intra-site IS-IS hello messages that are use for Authentication Edge Device (AED) election.

This command requires a Transport Services license.

Examples

This example shows how to configure a VLAN to discover local OTV devices:

```
switch(config)# otv site-vlan 4085
switch(config)#
```

Related Commands

Command	Description
show otv site	Displays information about the local OTV site.

otv suppress-arp-nd

To suppress sending the Address Resolution Protocol (ARP) and Neighbor Discovery (ND) packets on an overlay network, use the **otv suppress-arp-nd** command. To return to the default setting, use the **no** form of the command.

otv suppress-arp-nd

no otv suppress-arp-nd

Syntax Description

This command has no arguments or keywords.

Defaults

ON. (to suppress Address Resolution Protocol and Neighbor discovery messages).

Command Modes

Overlay interface configuration

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

Use the **suppress-arp-nd** OTV overlay interface command to suppress sending ARP and ND packets on overlay network. The ARP Requests and ND Neighbor Solicitations should be forwarded on the overlay network when the OTV edge device has state for the IPv4 or IPv6 target address. When you use this command, the number of broadcasts/multicast packets sent on the overlay is drastically reduced.

This command requires a Transport Services license.

Note IPv6 is not supported in this release.

Examples

This example shows how to suppress sending ARP and neighbor discovery ND packets on overlay network:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# interface overlay 1
switch(config-if-overlay)# otv suppress-arp-nd
switch(config)#
```

Related Commands

Command	Description
show otv arp-nd-cache	Displays the Layer 2 and Layer 3 address mapping for remote MAC addresses.

otv use-adjacency-server unicast-only

To configure the local edge device to use a remote adjacency server, use the **otv use-adjacency-servers unicast-only** command. To revert to the default settings, use the **no** form of this command.

otv use-adjacency-server *primary-ip-address* [*secondary-ip-address*] **unicast-only**

no otv use-adjacency-server *primary-ip-address* [*secondary-ip-address*] **unicast-only**

Syntax Description

primary-ip-address	IP address of the remote adjacency server. The IP address format must be in dotted decimal notation.
secondary-ip-address	(Optional) IP address of the backup adjacency server. The IP address format must be in dotted decimal notation. You use this only if you have configured a backup adjacency server.

Defaults

None

Command Modes

Overlay interface configuration

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to configure the local edge device to use a remote adjacency server:

```
switch# configure terminal
switch(config)# interface overlay 5
switch(config-if-overlay)# otv use-adjacency-server 192.0.2.1 unicast-only
switch(config-if-overlay)#
```

Related Commands

Command	Description
otv adjacency-server unicast-only	Configures the local edge device as an adjacency server.
show otv adjacency	Displays the overlay transport virtualization (OTV) adjacency information.

otv vpn-name

To configure the name of the specified Overlay Transport Virtualization (OTV) network, use the **otv vpn-name** command. To return to the default setting, use the **no** form of the command.

otv vpn-name *name*

no otv vpn-name *name*

Syntax Description

name	OTV name. The name can be any case-sensitive, alphanumeric string up to 20 characters.

Defaults

None

Command Modes

Overlay interface configuration

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

The OTV name for the specified overlay must be unique to each device. You must have different names for different overlay interfaces on the same device.

Note The OTV overlay interface cannot come up if you do not configure this command.

This command requires a Transport Services license.

Examples

This example shows how to configure a name for an OTV interface 5:

```
switch(config) interface overlay 5
switch(config-if-overlay)# otv vpn-name accounting
switch(config-if-overlay)#
```

Related Commands

Command	Description
show feature	Displays information about the features enabled on the device.

Command	Description
show otv vpn	Displays information about OTV VPNs.
interface overlay	Configures an OTV overlay interface.

redistribute filter route-map

To redistribute filter route map information from another routing protocol, use the **redistribute filter route-map** command. To return to the default setting, use the **no** form of the command.

redistribute filter route-map *route-map-name*

no redistribute filter route-map *route-map-name*

Syntax Description

route-map-name	(Optional) Specifies route map name. The name can be any case-sensitive, alphanumeric string up to 63 characters.

Defaults

None

Command Modes

OTV IS-IS VPN

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

The match mac-list and match vlan functionalities are used in OTV.

This command requires a Transport Services license.

Examples

This example shows how to redistribute filter route map information from another routing protocol:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# otv-isis default
switch(config-router)# vpn name
switch(config-router-vrf)# redistribute filter route-map active
switch(config-router-vrf)#
```

Related Commands

Command	Description
show feature	Displays information about the features enabled on the device.

restart otv-isis

To restart the OTV ISIS protocol, use the **restart otv-isis** command.

restart otv-isis [*default*]

Syntax Description

default	Specifies the name of the IS-IS process. OTV spawns a single IS-IS process and so this tag by default is “default”.

Defaults

None

Command Modes

Global configuration

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to restart the OTV ISIS process:

```
switch# config t
switch(config)# restart otv-isis default
switch(config)#
```

Related Commands

Command	Description
show feature	Displays information about the features enabled on the device.

show forwarding distribution otv multicast route

To display Focused ion beam Overlay Transport Virtualization (OTV) multicast route information, use the **show forwarding distribution otv multicast route** command.

show forwarding distribution otv multicast route {**vlan** *vlan-id*}

Syntax Description

vlan	(Optional) specifies VLAN information.
vlan-id	VLAN ID. The range is from 1 to 3967 and from 4048 to 4093.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display FIB OTV multicast route information:

```
switch# show forwarding distribution otv multicast route
Vlan: 311, Group: 224.0.0.0/4, Source: 0.0.0.0
  OTV Outgoing Interface List Index: 65535
  Reference Count: 1
  Number of Outgoing Interfaces: 0
Vlan: 311, Group: 224.0.0.0/24, Source: 0.0.0.0
  OTV Outgoing Interface List Index: 1
  Reference Count: 1
  Number of Outgoing Interfaces: 1
    External interface: Ethernet1/6
    Delivery group IP: 239.1.1.1
    Delivery source IP: 102.1.1.1
Vlan: 311, Group: 238.1.1.1, Source: 6.2.2.2
  OTV Outgoing Interface List Index: 2
  Reference Count: 1
  Number of Outgoing Interfaces: 1
    External interface: Ethernet1/6
    Delivery group IP: 232.1.1.0
    Delivery source IP: 102.1.1.1
```

Related Commands

Command	Description
show otv mroute	Displays information about the multicast MAC route.

show forwarding otv

To display Overlay Transport Virtualization (OTV) forwarding information on the interface, use the **show forwarding otv**command.

show forwarding otv [**ethernet** *port/slot* | **loopback** *number* | **port-channel** *channel-number* | **vlan** [*vlan-id* | *vlan-interface-number*]

Syntax Description

ethernet	Specifies the Etherenet interface.
slot/port	The module and port number.
loopback	Specifies the loopback interface.
number	Loopback number. The range is from 0 to 1023.
port-channel	Specifies the port-channel interface.
channel-number	Port-channel number. The range is from 1 to 4096.
vlan	Specifies VLAN information.
vlan-id	VLAN ID. The range is from 1 to 3967 and from 4048 to 4093.
vlan--interface-number	VLAN interface number. The range is from 1 to 3967 and from 4048 to 4093.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display OTV VLAN forwarding information:

```
switch# show forwarding otv vlan 10
```

Related Commands

Command	Description
show otv	Displays information about OTV.

show forwarding otv multicast outgoing-interface-list

To display Overlay Transport Virtualization (OTV) multicast outgoing multicast list information, use the **show forwarding otv multicast outgoing-interface-list** command.

show forwarding otv multicast outgoing-interface-list

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display OTV multicast outgoing interface list information:

```
switch# show forwarding otv multicast outgoing-interface-list
slot 1
=======

Outgoing Interface List Index: 1
Reference Count: 1
Overlay1
OTV group-address: (102.1.1.1, 239.1.1.1)
OTV external interface: Ethernet1/6 vlan: 311
Outgoing Interface List Index: 2
Reference Count: 1
Overlay1
OTV group-address: (102.1.1.1, 232.1.1.0)
OTV external interface: Ethernet1/6 vlan: 311
Outgoing Interface List Index: 65535
Reference Count: 1
```

Related Commands

Command	Description
show otv mroute	Displays information about the multicast MAC route.

show forwarding otv multicast route

To display Overlay Transport Virtualization (OTV) multicast route information, use the **show forwarding otv multicast route** command.

show forwarding otv multicast route [**module** *slot number* | **vlan** *vlan-id* **module** *slot number*]

Syntax Description

module	(Optional) Specifies the module.
slot number	(Optional) Specifies the slot number. The range is from 1 to 18.
vlan	(Optional) Specifies the VLAN.
vlan id	VLAN ID. The range is from 1 to 4095.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display OTV multicast route information:

switch# **show forwarding otv multicast route**

```
slot  1
=======
---------------------------------
Vlan 311 Multicast OTV entry
---------------------------------
Total number of routes: 3
Total number of (*,G) routes: 0
Total number of (S,G) routes: 1
Group count: 3
Legend:
   C = Control Route
   D = Drop Route
   G = Local Group (directly connected receivers)
   O = Drop on RPF failure
   P = Punt to Supervisor
   W = Wildcard
```

```
   d = OTV Decap route
   c = OTV Copy route
   l = OTV /4 route
   r = OTV /24 route
IPv4 Broadcast/Link Local Multicast:
   Received Packets: 286 Bytes: 31863
      OTV group-address: (102.1.1.1, 239.1.1.1)
      OTV external interface: Ethernet1/6 vlan: 311
IPv6 Broadcast/Link Local Multicast:
   NULL
(*, 224.0.0.0/4), RPF Interface: NULL, flags: cl
    Received Packets: 0 Bytes: 0
    Number of Outgoing Interfaces: 0
    Null Outgoing Interface List
(*, 224.0.0.0/24), RPF Interface: NULL, flags: r
    Received Packets: 0 Bytes: 0
    Number of Outgoing Interfaces: 1
    Outgoing Interface List Index: 1
      Overlay1 Outgoing Packets:0 Bytes:0
      OTV group-address: (102.1.1.1, 239.1.1.1)
      OTV external interface: Ethernet1/6 vlan: 311
(6.2.2.2/32, 238.1.1.1/32), RPF Interface: NULL, flags:
    Received Packets: 7611485 Bytes: 487135040
    Number of Outgoing Interfaces: 1
    Outgoing Interface List Index: 2
      Overlay1 Outgoing Packets:7611485 Bytes:624141770
      OTV group-address: (102.1.1.1, 232.1.1.0)
      OTV external interface: Ethernet1/6 vlan: 311
```

Related Commands

Command	Description
show otv mroute	Displays information about the multicast MAC route.

show forwarding otv overlay

To display forwarding Overlay Transport Virtualization (OTV) overlay interface information, use the **show forwarding otv overlay** command.

show forwarding otv overlay {*overlay interface* [**peer** *peer-id*]}

Syntax Description

overlay interface	Overlay interface number. The range is from o to 65535.
peer	(Optional) Specifies the peer overlay.
peer-id	Peer ID.

Defaults

None.

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display forwarding OTV overlay interface:

```
switch# show forwarding otv overlay 1
slot  1
=======
---------
  VLAN
---------
  311
-------------+------------------+---------------
   Peer ID       Peer Ifindex      Tunnel I/f
-------------+------------------+---------------
  1              0x22100001           Tunnel16384
  2              0x22100002           Tunnel16385
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

show ip igmp snooping mrouter otv

To display IGMP snooping information for OTV, use the **show ip igmp snooping mrouter otv** command.

show ip igmp snooping mrouter otv [**vlan** *vlan-no*]

Syntax Description

vlan-no	(Optional) VLAN number for which you want to display the OTV IGMP snooping information.

Defaults

None.

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display IGMP snooping information for OTV:

```
switch(config)# show ip igmp snooping mrouter otv
Type: S - Static, D - Dynamic, V - vPC Peer Link, I - Internal
Vlan  Router-port   Type      Uptime      Expires
10    Vlan10         I        23:45:12    never(down)
```

Related Commands

Command	Description
feature otv	Enables OTV..

show logging level otv isis

To display the current and default logging level of the Overlay Transport Virtualization (OTV) Intermediate System-to-Intermediate System (IS-IS) process, use the **show logging level otv isis** command.

show logging level otv isis

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display the logging level of the OTV Intermediate System-to-Intermediate System process:

```
switch# show logging level otv isis
Facility        Default Severity        Current Session Severity
--------        ----------------        ------------------------
isis_otv                5                       5

0(emergencies)          1(alerts)       2(critical)
3(errors)               4(warnings)     5(notifications)
6(information)          7(debugging)
switch#
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

show otv

To display the Overlay Transport Virtualization (OTV) information, use the **show otv** command.

show otv [**overlay** *overlay-interface*]

Syntax Description

overlay-interface	Overlay interface number. The range is from 0 to 65535.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display the OTV information:

```
switch(config-if-overlay)# show otv
OTV Overlay Information


Overlay Interface Overlay1
 VPN Name                  : Overlay1
 VPN ID                    : 2
 State                     : DOWN
                           : Missing Parameter: Control Group Address
 IPv4 multicast group      : [None]
 IPv6 multicast group      : [None]
 Mcast data group range(s):
 External interface(s)     :
 External IPv4 address     : 0.0.0.0
 External IPv6 address     : 0::
 Encapsulation format      : GRE/IPv4
 Site-vlan                 : 1
 Capability                : Multicast-Reachable
 Is Adjacency Server       : NO
 Adj Server Configured     : NO
 Prim/Sec Adj Svr(s)       : [None] / [None]
switch(config-if-overlay)#
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

show otv adjacency

To display the overlay transport virtualization (OTV) adjacency information, use the **show otv adjacency** command.

show otv adjacency [**overlay** *if-number* | **vpn** *vpn-name*] [**detail**]

Syntax Description

overlay	(Optional) Specifies the overlay interface.
if-number	Overlay interface number. The range is from 0 to 65503.
vpn	(Optional) Specifies the overlay virtual private network (VPN) name.
vpn-name	Name of the VPN. A VPN name can be any case-sensitive, alphanumeric string up to 80 characters.
detail	(Optional) Specifies the adjacency details.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
network-operator
vdc-admin
vdc-operator

Command History

Release	Modification
5.0(3)	This command was introduced.
5.2(1)	Added the **overlay**, and **vpn** keywords.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to display the OTV adjacency information:

```
switch# show otv adjacency
Overlay Adjacency database

Overlay-Interface Overlay1 :
Hostname System-ID Dest Addr Up Time Adj-State
Nexus-7-pod4 0022.557a.5842 10.0.2.1 06:50:55 UP

switch#
```

Related Commands

Command	Description
otv adjacency-server unicast-only	Configures the local edge device as an adjacency server.
otv use-adjacency-server unicast-only	Configures the local edge device to use a remote adjacency server.
show otv isis	Displays the IS-IS status and configuration.

show otv arp-nd-cache

To display Layer 2 and Layer 3 addresses cached from ARP and ND packet inspection, use the **show otv arp-nd-cache** command.

show otv arp-nd-cache

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Note IPv6 is not supported in this release.

Examples

This example shows how to display the Layer 2 and Layer 3 address mapping for remote MAC addresses:

```
switch(config)# show otv arp-nd-cache
OTV ARP/ND L3->L2 Address Mapping Cache
switch(config)#
```

Related Commands

Command	Description
feature otv	Enables OTV on this device.

show otv data-group

To display Overlay Transport Virtualization (OTV) data group information, use the **show otv data-group** command.

show otv data-group {**delivery-group** *number* | **delivery-source** *number* | **group** *number* | **join-interface** *number* | **local** |**overlay** *number* | **remote** | **source** *number* |**vlan** *vlan-id*}

Syntax Description

delivery-group	(Optional) Specifies delivery group data group.
delivery-source	(Optional) Specifies delivery source data group.
group	(Optional) Specifies active source group data group.
join-interface	(Optional) Specifies join interface data group.
local	(Optional) Specifies a locally announced data group.
overlay	(Optional) Specifies a overlay interface data group.
remote	(Optional) Specifies a remotely announced data group.
source	(Optional) Specifies active source source data group.
vlan	(Optional) Specifies VLAN data group.
vlan-id	VLAN ID. The range is from 1 to 3967 and from 4048 to 4093.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display OTV data group information:

```
switch(config)# show otv data-group
Local Active Sources for Overlay0
VLAN Active-Source   Active-Group    Delivery-Source Delivery-Group  Ext-I/F
---- --------------- --------------- --------------- --------------- -------
2    1.1.1.1         225.1.1.1       2.3.0.1         239.1.1.0       Eth2/3
switch(config)#
```

This example shows how to display delivery group data group:

```
switch(config)# show otv data-group delivery-group 239.1.1.0
Local Active Sources for Overlay0
VLAN Active-Source   Active-Group    Delivery-Source Delivery-Group  Ext-I/F
---- --------------- --------------- --------------- --------------- -------
2    1.1.1.1         225.1.1.1       2.3.0.1         239.1.1.0       Eth2/3
switch(config)#
```

This example shows how to display delivery source data group:

```
switch(config)# show otv data-group delivery-group 239.1.1.0 delivery-source 2.3.0.1
Local Active Sources for Overlay0
VLAN Active-Source   Active-Group    Delivery-Source Delivery-Group  Ext-I/F
---- --------------- --------------- --------------- --------------- -------
2    1.1.1.1         225.1.1.1       2.3.0.1         239.1.1.0       Eth2/3
switch(config)#
```

This example shows how to display active source group data group:

```
switch(config)# show otv data-group group 225.1.1.1
Local Active Sources for Overlay0
VLAN Active-Source   Active-Group    Delivery-Source Delivery-Group  Ext-I/F
---- --------------- --------------- --------------- --------------- -------
2    1.1.1.1         225.1.1.1       2.3.0.1         239.1.1.0       Eth2/3
switch(config)#
```

This example shows how to display active source source data group:

```
switch(config)# show otv data-group group 225.1.1.1 source 1.1.1.1
Local Active Sources for Overlay0
VLAN Active-Source   Active-Group    Delivery-Source Delivery-Group  Ext-I/F
---- --------------- --------------- --------------- --------------- -------
2    1.1.1.1         225.1.1.1       2.3.0.1         239.1.1.0       Eth2/3
switch(config)#
```

This example shows how to display local group data group:

```
switch(config)# show otv data-group local
Local Active Sources for Overlay0
VLAN Active-Source   Active-Group    Delivery-Source Delivery-Group  Ext-I/F
---- --------------- --------------- --------------- --------------- -------
2    1.1.1.1         225.1.1.1       2.3.0.1         239.1.1.0       Eth2/3
switch(config)#
```

This example shows how to display VLAN data group:

```
switch(config)# show otv data-group vlan 2
Local Active Sources for Overlay0
VLAN Active-Source   Active-Group    Delivery-Source Delivery-Group  Ext-I/F
---- --------------- --------------- --------------- --------------- -------
2    1.1.1.1         225.1.1.1       2.3.0.1         239.1.1.0       Eth2/3
switch(config)#
```

This example shows how to display join interface data group:

```
switch(config)# show otv data-group join-interface eth2/3
Local Active Sources for Overlay0
VLAN Active-Source   Active-Group    Delivery-Source Delivery-Group  Ext-I/F
---- --------------- --------------- --------------- --------------- -------
2    1.1.1.1         225.1.1.1       2.3.0.1         239.1.1.0       Eth2/3
switch(config)#
```

This example shows how to display overlay interface data group:

```
switch(config)# show otv data-group overlay 0
```

```
Local Active Sources for Overlay0
VLAN Active-Source   Active-Group    Delivery-Source Delivery-Group  Ext-I/F
---- --------------- --------------- --------------- --------------- -------
2    1.1.1.1         225.1.1.1       2.3.0.1         239.1.1.0       Eth2/3
switch(config)#
```

Related Commands

Command	Description
feature otv	Enables OTV on this device.

show otv isis active-source

To display Overlay Transport Virtualization (OTV) Intermediate System-to-Intermediate System (IS-IS) data group information, use the **show otv isis active-source** command.

show otv isis [*otv-isis-tag*] **active-source** [**vlan** *vlan-id* [**group** *gip-addr* [**source** *sip-addr*]]] [**summary**] **vpn** {*vpn-name* **all**}

Syntax Description

otv-isis-tag	Specifies the name of the IS-IS process. OTV spawns a single IS-IS process and so this tag by default would be “default”.
vlan *vlan-id*	(Optional) Specifies IS-IS VLAN information. IS-IS VLAN information. The range is from 0 to 4294967295.
group *gip-addr*	(Optional) Specifies group information. Displays single IP redistribute route.
source *sip-addr*	(Optional) Specifies source information. Displays single IP redistribute route.
summary	Displays count of the number of multicast entries
vpn	(Optional) Specifies VPN information.
vpn-name	Specifies VPN name. The maximum length is 32 alphanumeric characters.
all	(Optional) Specifies all configured VPNs.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display IS-IS data group information:

```
switch(config-vlan)# show otv isis active-source
OTV-IS-IS process: default VPN: Test1
OTV-IS-IS IP DSDG information
OTV-IS-IS IPv4 DSDG information

OTV-IS-IS process: default VPN: foo
OTV-IS-IS IP DSDG information
OTV-IS-IS IPv4 DSDG information
```

```
OTV-IS-IS process: default VPN: name
OTV-IS-IS IP DSDG information
OTV-IS-IS IPv4 DSDG information

OTV-IS-IS process: default VPN: test
OTV-IS-IS IP DSDG information
OTV-IS-IS IPv4 DSDG information

OTV-IS-IS process: default VPN: test2
OTV-IS-IS IP DSDG information
OTV-IS-IS IPv4 DSDG information
switch(config-vlan)#
```

Related Commands

Command	Description
show otv isis	Displays IS-IS status and configuration.

show otv isis adjacency

To display Overlay Transport Virtualization (OTV) Intermediate System-to-Intermediate System (IS-IS) adjacency information, use the **show otv isis adjacency** command.

show otv isis adjacency [**detail** | **overlay** *interface* | **summary** | **system-id** | **vpn** {*vpn-name* | **all**}]

Syntax Description

detail	(Optional) Specifies IS-IS adjacency detail information.
overlay *interface*	(Optional) Specifies overlay interface number. The range is from 1 to 65535.
summary	(Optional) Specifies IS-IS adjacency summary information.
system-id	(Optional) Specifies hostname or system ID.
vpn	(Optional) Specifies VPN information.
vpn-name	Specifies VPN name. The maximum length is 32 alphanumeric characters.
all	(Optional) Specifies all configured VPNs.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display IS-IS adjacency information:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# vlan 1
switch(config-vlan)# show otv isis adjacency
OTV-IS-IS process: default VPN: Overlay1
OTV-IS-IS adjacency database:
System ID       SNPA            Level  State  Hold Time  Interface
it8             0015.1762.8f48  1      UP     00:00:08   Overlay1
switch(config-vlan)#
```

Related Commands

Command	Description
show otv isis	Displays IS-IS status and configuration.

show otv isis database

To display the contents of the Overlay Transport Virtualization (OTV) System-to-Intermediate System (IS-IS), link-state packet (LSP) database for each overlay, which can be used to determine the unicast MACs and multicast groups received from each neighbor**,** use the **show otv isis database** command.

show otv isis [*otv-isis-tag*] **database** [**mgroup**] [**detail | advertise | summary**] [*lsp-id*] {**zero-sequence** | **adjacency** *adj-id* | **vpn** *vpn-name* | **all**}

Syntax Description

otv-isis-tag	Specifies the name of the IS-IS process. OTV spawns a single IS-IS process and so this tag by default would be “default”.
mgroup	(Optional) Specifies IS-IS multicast database for each overlay.
detail	(Optional) Specifies detailed IS-IS information.
advertise	(Optional) Specifies the capability of the device to be multicast capable unless unicast only is specified.
summary	(Optional) Specifies summary IS-IS information.
lsp-id	(Optional) LSP ID in the form of xxxx.xxxx.xxxx.xx-xx.
zero-sequence	(Optional) Specifies an LSP with a zero sequence number.
adjacency	(Optional) Specifies the adjacency filter.
vpn	(Optional) Specifies VPN information.
vpn-name	VPN name. The maximum length is 32 characters.
all	Specifies all configured VPNs.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display IS-IS database information:

```
switch# show otv isis database
OTV-IS-IS Process: default LSP database VPN: Overlay1
```

```
OTV-IS-IS Level-1 Link State Database
  LSPID                 Seq Number   Checksum  Lifetime   A/P/O/T
  switch.00-00        * 0x000006C1   0xF4E3    980        0/0/0/1
switch#
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

show otv isis hostname

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

show otv isis hostname [**detail** | **vpn** {*vpn-name* | **all**}]

Syntax Description

detail	(Optional) Specifies detailed IS-IS information.
vpn	(Optional) Specifies VPN information.
vpn-name	VPN name. The maximum length is 32 alphanumeric characters.
all	(Optional) Specifies all configured VPNs.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to displays the Overlay Transport Virtualization (OTV) Intermediate IS-IS dynamic hostname exchange information:

```
switch# show otv isis hostname
OTV-IS-IS Process: default dynamic hostname table VPN: Overlay1
  Level  System ID       Dynamic hostname
  1      0022.5579.a4c1* switch
switch#
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

show otv isis interface

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

show otv isis interface [**brief** | **overlay** *interface* | **vpn** {*vpn-name* | **all**}]

Syntax Description

brief	(Optional) Specifies a brief display of IS-IS interfaces.
overlay *interface*	(Optional) Specifies an overlay interface number. The range is from 1 to 65535.
vpn	(Optional) Specifies VPN information.
vpn-name	VPN name. The maximum length is 32 alphanumeric characters.
all	Specifies all configured VPNs.

Defaults

None.

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command lists the various interfaces that Overlay Transport Virtualization ISIS runs on. There is one overlay interface per overlay. By default, this command displays the interfaces for all overlays.

This command requires a Transport Services license.

Examples

This example shows how to displays the IS-IS interface information:

```
switch# show otv isis interface
OTV-IS-IS process: default VPN: Overlay1
Overlay1, Interface status: protocol-down/link-down/admin-down
  IP address: none
  IPv6 address: none
  IPv6 link-local address: none
  ISIS interface operation state : Down/Ready
  Index: 0x0001, Local Circuit ID: 0x01, Circuit Type: L1
Level1
  Adjacency server (local/remote) : enabled / none
  Adjacency server capability : multicast
Authentication type is cleartext
```

```
Authentication keychain is 1
Authentication check specified
  LSP interval: 33 ms, MTU: 1400
  Level      Metric   CSNP  Next CSNP  Hello   Multi   Next IIH
  1               1      1  Inactive      10   3       Inactive
  Level  Adjs   AdjsUp Pri  Circuit ID         Since
  1         0        0   1  switch.01          never
switch#
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

show otv isis ip mroute

To display Overlay Transport Virtualization (OTV) Intermediate-System-to-Intermediate System (IS-IS) IPv4 multicast route information, use the **show otv isis ip mroute** command.

show otv isis [*otv-isis-tag*] **ip mroute** [**vlan** *vlan-id*] [**group** *gip-addr* [**source** *sip-addr*]]] [**summary**] **vpn** {*vpn-name* **all**}

Syntax Description

vlan *vlan-id*	(Optional) Specifies IS-IS VLAN information. IS-IS VLAN information. The range is from 0 to 4294967295.
group *gip-addr*	(Optional) Specifies group information. Displays single IP redistribute route.
source *sip-addr*	(Optional) Specifies source information. Displays single IP redistribute route.
summary	Displays count of the number of multicast entries
vpn	(Optional) Specifies VPN information.
vpn-name	VPN name. The maximum size is 32 alphanumeric characters.
all	Specifies all configured VPNs.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display OTV IS-IS IPv4 multicast route information:

```
switch(config-vlan)# show otv isis ip mroute
switch(config-vlan)# show otv isis ip mroute
OTV-IS-IS process: default VPN: Test1
OTV-IS-IS IP Multicast Groups
OTV-IS-IS IPv4 Multicast Group database

OTV-IS-IS process: default VPN: foo
OTV-IS-IS IP Multicast Groups
OTV-IS-IS IPv4 Multicast Group database

OTV-IS-IS process: default VPN: name
```

```
OTV-IS-IS IP Multicast Groups
OTV-IS-IS IPv4 Multicast Group database

OTV-IS-IS process: default VPN: test
OTV-IS-IS IP Multicast Groups
OTV-IS-IS IPv4 Multicast Group database

OTV-IS-IS process: default VPN: test2
OTV-IS-IS IP Multicast Groups
OTV-IS-IS IPv4 Multicast Group database
switch(config-vlan)#
```

show otv isis ip redistribute mroute

To display Intermediate-System-to-Intermediate System (IS-IS) IPv4 redistribute multicast route information, use the **show otv isis ip redistribute mroute** command.

show otv isis ip redistribute mroute [**vlan** {*vlan*} vpn {*vpn-name* **all**}]

Syntax Description

vlan	(Optional) Specifies IS-IS VLAN information.
vlan	IS-IS VLAN information. The range is from 0 to 4294967295.
vpn	(Optional) Specifies VPN information.
vpn-name	VPN name. The maximum size is 32 alphanumeric characters.
all	Specifies all configured VPNs.

Defaults

Displays locally learned IPv4 multicast routes

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display IS-IS ip redistribute multicast route information:

```
switch(config-vlan)# show otv isis ip redistribute mroute
OTV-IS-IS process: default OTV-IS-IS IPv4 Local Multicast Group database
VLAN 9: (*, *)
VLAN 9: (6.6.6.6, 239.4.4.4)
switch(config-vlan)#
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

show otv isis mac redistribute route

To display Intermediate-System-to-Intermediate System (IS-IS) MAC redistribute route information, use the **show otv isis redistribute route** command.

show otv isis [*otv-isis-tag*] [**mac**] **redistribute route** [**summary**] **vpn** {*vpn-name* | **all**}

Syntax Description

otv-isis-tag	Specifies the name of the IS-IS process. OTV spawns a single IS-IS process and so this tag by default would be “default”.
mac	(Optional) Specifies IS-IS MAC information.
summary	Displays route counts.
vpn	(Optional) Specifies VPN information.
vpn-name	VPN name. The maximum size is 32 alphanumeric characters.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display OTV IS-IS MAC redistribute route information:

```
switch(config-vlan)# show otv isis mac redistribute route
OTV-IS-IS process: default VPN: Test1
OTV-IS-IS MAC redistribute route


OTV-IS-IS process: default VPN: foo
OTV-IS-IS MAC redistribute route


OTV-IS-IS process: default VPN: name
OTV-IS-IS MAC redistribute route


OTV-IS-IS process: default VPN: test
OTV-IS-IS MAC redistribute route
```

```
OTV-IS-IS process: default VPN: test2
OTV-IS-IS MAC redistribute route
switch(config-vlan)#
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

show otv isis protocol

To display Overlay Transport Virtualization (OTV) Intermediate-System-to-Intermediate System (IS-IS) information**,** use the **show otv isis protocol** command.

show otv isis protocol [**vpn** {*vpn-name* | **all**}]

Syntax Description

vpn	(Optional) Specifies VPN information.
vpn-name	VPN name. The maximum length is 32 alphanumeric characters.
all	(Optional) Specifies all configured VPNs.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display OTV IS-IS protocol information:

```
switch# show otv isis protocol
ISIS process : default
VPN: Overlay1
  System ID : 0022.5579.a4c1  IS-Type : L1
  SAP : 439  Queue Handle : 11
  Maximum LSP MTU: 1392
  Graceful Restart enabled. State: Inactive
  Last graceful restart status : none
  Metric-style : advertise(wide), accept(narrow, wide)
  Area address(es) :
    00
  Process is up and running
  VPN ID: 2
  Stale routes during non-graceful controlled restart
  Interfaces supported by OTV-IS-IS :
    Overlay1
Level 1
Authentication type and keychain haven't been configured
Authentication check is specified
  Address family IPv4 unicast :
```

```
Number of interface : 1
Adjacency check disabled
Distance : 115
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

show otv isis redistribute route

To display Intermediate-System-to-Intermediate System (IS-IS) redistribute route information, use the **show otv isis redistribute route** command.

show otv isis redistribute route [**summary vpn** {*vpn-name* | **all**} | **vpn** {*vpn-name* | **all**}]

Syntax Description

summary	(Optional) Specifies route counts.
vpn	(Optional) Specifies VPN information.
vpn-name	VPN name. The maximum size is 32 characters.
all	Specifies all configured VPNs.

Defaults

Locally learned MAC addresses

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display IS-IS redistribute route information:

```
switch(config-vlan)# show otv isis redistribute route
OTV-IS-IS process: default VPN: Overlay1
OTV-IS-IS MAC redistribute route
0009-0033.0033.0033, all
Advertised into L1, metric 1
switch(config-vlan)#
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

show otv isis route

To display Intermediate-System-to-Intermediate System (IS-IS) information learned from neighbors (remote routes) use the **show otv isis route** command.

show otv isis route [**detail vpn** {*vpn-name* | **all**} | **summary vpn** {*vpn-name* **|** **all**} **|** **vpn** {*vpn-name* **|** **all**}]

Syntax Description

detail	(Optional) Specifies detail route information.
summary	(Optional) Specifies route counts.
vpn	(Optional) Specifies VPN information.
vpn-name	VPN name. The maximum size is 32 alphanumeric characters.
all	Specifies all configured VPNs.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display IS-IS route information:

```
switch(config-vlan)# show otv isis route
OTV-IS-IS process: default VPN: Overlay1
OTV-IS-IS MAC routing table
0009-0015.1762.79cb, L1
*via 10.10.10.9, Overlay1, metric 42, L1 (I,U)
switch(config-vlan)#
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

show otv isis route-map statistics

To display Intermediate-System-to-Intermediate System (IS-IS) route-map statistics information, use the **show otv isis route-map statistics** command.

show otv isis route-map statistics

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display IS-IS route-map statistics information:

```
switch(config)# show otv isis route-map statistics
OTV-IS-IS process: default
VPN: Test1
Cannot get redistribution information
OTV-IS-IS process: default
VPN: foo
Cannot get redistribution information
OTV-IS-IS process: default
VPN: name
Statistics not available for the policy
OTV-IS-IS process: default
VPN: test
Cannot get redistribution information
OTV-IS-IS process: default
VPN: test2
Cannot get redistribution information
switch(config)#
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

show otv isis rrm

To display Overlay Transport Virtualization (OTV) Intermediate-System-to-Intermediate System (IS-IS) Retransmit-Routing Message information**,** use the **show otv isis rrm** command.

show otv isis rrm {**mgroup overlay** | **overlay** *interface* **vpn** {*vpn-name* | **all**}}

Syntax Description

mgroup	Specifies IS-IS GM Retransmit-Routing-Message information.
overlay *interface*	Specifies the overlay interface. The range is from 1 to 65535.
vpn	Specifies all VPN information.
vpn-name	VPN name. The maximum length is 32 alphanumeric characters.
all	Specifies all configured VPNs.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display OTV IS-IS Retransmit-Routing Message overlay information:

```
switch(config)# show otv isis rrm overlay 1
OTV-IS-IS process: default
OTV-IS-IS RRM information for interface Overlay1:
  No retransmission on non-P2P interface
switch#
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

show otv isis site

To display Overlay Transport Virtualization (OTV) Intermediate-System-to-Intermediate System (IS-IS) site information**,** use the **show otv isis site** command.

show otv isis site

Syntax Description

This command has no arguments or keywords.

Defaults

None.

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display OTV IS-IS information of the local OTV site:

```
switch(config)# show otv isis site
OTV-ISIS default site-information
VPN: otv-site-vlan
  System ID : 0022.5579.a4c1  IS-Type : L1
LSP interval: 33 ms, MTU: 0
  Level      Metric    CSNP  Next CSNP  Hello   Multi   Next IIH
  1        16777214      10  Inactive      10   3       00:00:08
  Level  Adjs   AdjsUp Pri  Circuit ID         Since
  1         0        0  64  switch.01          never
switch#
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

show otv isis spf

To display Overlay Transport Virtualization (OTV) Intermediate-System-to-Intermediate System (IS-IS) Sender Policy Framework (SPF) information**,** use the **show otv isis spf-log** command.

show otv isis spf-log [**detail** | **vpn** {*vpn-name* | **all**}]

Syntax Description

detail	(Optional) Specifies detail IS-IS SPF information.
vpn	(Optional) Specifies all VPN information.
vpn-name	VPN name. The maximum length is 32 alphanumeric characters.
all	Specifies all configured VPNs.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display OTV IS-IS SPF information:

```
switch(config)# show otv isis spf-log
OTV-IS-IS Process: default SPF information VPN: Overlay1
Total number of SPF calculations: 2

Log entry (current/max): 1/20
Ago       Level  Reason                                  Count  Total
1w4d      1      Adjust route distribution                   4
          2      Adjust route distribution                   3  0.000269
switch#
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

show otv isis srm

To display Overlay Transport Virtualization (OTV) Intermediate-System-to-Intermediate System (IS-IS) Send-Routing-Message information**,** use the **show otv isis srm** command.

show otv isis srm {**mgroup overlay** *interface* **vpn** {*vpn-name* | **all**} | **overlay** *interface* **vpn** {*vpn-name* | **all**}}

Syntax Description

mgroup	Specifies IS-IS GM-Send-Routing-Message information.
overlay	Specifies the overlay interface.
interface	Overlay interface number. The range is from 0 to 65535.
vpn	Specifies all VPN information.
vpn-name	VPN name. The maximum length is 32 characters.
all	Specifies all configured VPNs.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display OTV IS-IS Send-Routing-Message overlay interface information:

```
switch(config-vlan)# show otv isis srm overlay 1
OTV-IS-IS process: default
OTV-IS-IS SRM information for interface Overlay1:
OTV-IS-IS Level-1 Link State Database
Interface is eligible for flooding LSP
Interface is on stopped SRM list
LSP interval: 33 ms, Next LSP: Inactive
LSPID                 Seq Number   Checksum  Lifetime   A/P/O/T
switch(config-vlan)#
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

show otv isis ssn

To display Overlay Transport Virtualization (OTV) Intermediate-System-to-Intermediate System (IS-IS) Send-Sequence-Number information, use the **show otv isis ssn** command.

show otv isis ssn {**mgroup overlay** *interface* **vpn** {*vpn-name* | **all**} | **overlay** *interface* **vpn** {*vpn-name* | **all**}}

Syntax Description

mgroup	Specifies IS-IS GM-Send-Sequesnce Number information.
overlay	Specifies the overlay interface.
interface	Overlay interface number. The range is from 0 to 65535.
vpn	Specifies all VPN information.
vpn-name	VPN name. The maximum length is 32 alphanumeric characters.
all	Specifies all configured VPNs.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display OTV IS-IS Send-Sequence-Number information:

```
switch(config-vlan)# show otv isis ssn overlay 1
OTV-IS-IS process: default
OTV-IS-IS SSN information for interface Overlay1:
OTV-IS-IS Level-1 Link State Database
Interface is eligible for sending PSNP
Next PSNP: Inactive
LSPID                 Seq Number   Checksum  Lifetime   A/P/O/T
switch(config-vlan)#
```

Related Commands

#

Command	Description
show otv isis	Displays IS-IS status and configuration.

show otv isis statistics

To display Overlay Transport Virtualization (OTV) Intermediate-System-to-Intermediate System (IS-IS) protocol statistics, use the **show otv isis statistics** command.

show otv isis statistics {**overlay** *interface* **vpn** {*vpn-name* | **all**} | **vpn** {*vpn-name* | **all**}}

Syntax Description

overlay	Specifies the overlay interface.
interface	Overlay interface number. The range is from 0 to 65535.
vpn	Specifies all VPN information.
vpn-name	VPN name. The maximum length is 32 alphanumeric characters.
all	Specifies all configured VPNs.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display OTV IS-IS protocol statistics:

```
switch(config)# show otv isis statistics
OTV-IS-IS Process:      default
VPN:                Overlay1
SPF calculations:   2
LSPs sourced:       2
LSPs refreshed:     1749
LSPs purged:        0
DIS elections:      1
switch#
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

show otv isis traffic

To display Overlay Transport Virtualization (OTV) Intermediate-System-to-Intermediate System (IS-IS) traffic information**,** use the **show otv isis traffic** command.

show otv isis traffic {**overlay** *interface* **vpn** {*vpn-name* | **all**} | **vpn** {*vpn-name* | **all**}}

Syntax Description

overlay	Specifies overlay interface.
interface	Overlay interface number. The range is from 0 to 65535.
vpn	Specifies all VPN information.
vpn-name	VPN name. The maximum length is 32 alphanumeric characters.
all	Specifies all configured VPNs.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display OTV IS-IS traffic information:

```
switch(config)# show otv isis traffic
OTV-IS-IS process: default
VPN: Overlay1
OTV-IS-IS Traffic:
PDU        Received        Sent  RcvAuthErr OtherRcvErr  ReTransmit
LAN-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
show otv isis	Displays the IS-IS status and configuration.

show otv isis vpn

To display the Overlay Transport Virtualization (OTV) VPN configuration, use the **show otv isis vpn** command.

show otv isis vpn {*vpn-name* | **all**}

Syntax Description

vpn-name	VPN name. The maximum length is 32 alphanumeric characters.
all	Specifies all configured VPNs.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display OTV Virtual Private Network (VPN) configuration:

```
switch# show otv isis vpn overlay1
switch#
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

show otv mroute

To display the Overlay Transport Virtualization (OTV) multicast route information from the ORIB**,** use the **show otv mroute** command.

show otv mroute [**overlay** *overlay-interface-number* | **vlan** *vlan-id* [**group** *group ipv4 address* | **source** *source ipv4 address* [**group** *group ipv4 address*]]]

Syntax Description

overlay	(Optional) Specifies the overlay interface.
overlay-interface-number	Specifies Interface number. The range is from 0 to 65535.
vlan	(Optional) Specifies routes for a specific VLAN.
vlan-id	VLAN ID. The range is from 1 to 3967 and from 4048 to 4093.
group	(Optional) Specifies multicast group.
group ipv4 address	Specifies group ipv4 address.
source	(Optional) Specifies multicast source.
source ipv4 address	Specifies source ipv4 address.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Note IPv6 is not supported in this release.

Examples

This example shows how to display the multicast route information from the ORIB:

```
switch# show otv mroute
OTV Multicast Routing Table For Overlay0
(2, 1.1.1.1, 225.1.1.1), metric: 0, uptime: 00:01:37, igmp
Outgoing interface list: (count: 1)
Eth2/1
(2, 2.2.2.2, 225.2.2.2), metric: 0, uptime: 00:00:04, isis-default
```

```
Outgoing interface list: (count: 1)
Overlay0
switch#
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

Related Commands

show otv route

To display Overlay Transport Virtualization (OTV) Intermediate-System-to-Intermediate System (IS-IS) route information from the ORBI, use the **show otv route** command.

show otv route [**overlay** *overlay-interface-number* | **vlan** *vlan-id*]

Syntax Description

overlay	(Optional) Specifies the overlay interface.
overlay-interface-number	Specifies Interface number. The range is from 0 to 65535.
vlan	(Optional) Specifies routes for a specific VLAN.
vlan-id	VLAN ID. The range is from 1 to 3967 and from 4048 to 4093.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Note IPv6 is not supported in this release.

Examples

This example shows how to display OTV IS-IS route information:

```
switch(config)# show otv route
OTV Unicast MAC Routing Table For Overlay0

VLAN MAC-Address     Metric  Uptime    Owner      Next-hop(s)
---- --------------  ------  --------  ---------  -----------
   2 0004.23e1.bc8d  42      00:06:39  overlay    zg2
   2 001b.2103.b1df  42      00:06:39  overlay    zg2
   2 001b.2103.be17  11      00:00:07  site       Ethernet2/1
switch(config)#
```

Related Commands

Command	Description
feature otv	Enables OTV on this device.

show otv site

To display the Overlay Transport Virtualization site information**,** use the **show otv site** command.

show otv site [**all**]

Syntax Description		
	all	(Optional) Specifies all the site adjacencies.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History	Release	Modification
	5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to displays all the OTV site adjacencies:

```
switch# show otv site all
OTV Overlay Information
Site-VLAN                 : 4085
Site Adjacency database
Site Adjs not found for ovly (null)
switch#
```

Related Commands	Command	Description
	show otv isis	Displays the IS-IS status and configuration.

show otv statistics multicast

To display multicast statistics information**,** use the **show otv statistics multicast** command.

show otv statistics multicast *vlan-id*

Syntax Description		
	vlan-id	(Optional) VLAN ID. The range is from 1 to 4095.

Defaults

None

Command Modes

Configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to displays multicast statistics information:

```
switch(config)# show otv statistics multicast 1
Multicast Statistics for vlan 1
switch(config)#
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

show otv vlan

To display the VLAN information for the Overlay Transport Virtualization overlay interface**,** use the **show otv vlan** command.

show otv vlan {*vlan-range* | **authoritative** {**detail**} | **detail**}

Syntax Description

vlan-range	VLAN range. The range is from 1 to 3967 and from 4048 to 4094.
authoritative	Specifies each interface in the VLAN.
detail	Specifies each interface in the VLAN.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display VLAN information for the OTV overlay interface:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# interface overlay 1
switch(config-if-overlay)# show otv vlan 1 detail
OTV VLAN Configuration Information
Legend: F - Forwarding B - Blocked
VLAN-ID  VlanState           Switchport/    External       Overlay
                             Forward Count  Interface      Group
switch#
```

show otv vpn

To display the information about an overlay network**,** use the **show otv vpn** command.

show otv vpn *vpn-name*

Syntax Description		
	vpn-name	Overlay Transport Virtualization VPN name.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display the information about an overlay network:

```
switch# show otv vpn overlay1
OTV Overlay Information
Overlay Interface Overlay1
 VPN Name                  : Overlay1
 VPN ID                    : 2
 State                     : DOWN
                           : Missing Parameter: Control Group Address
 IPv4 multicast group      : [None]
 IPv6 multicast group      : [None]
 Mcast data group range(s):
 External interface(s)     :
 External IPv4 address     : 0.0.0.0
 External IPv6 address     : 0::
 Encapsulation format      : GRE/IPv4
 Site-vlan                 : 4085
 Capability                : Multicast-Reachable
 Is Adjacency Server       : YES
 Adj Server Configured     : YES
 Prim/Sec Adj Svr(s)       : 192.0.2.1 / [None]
switch#
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

show run otv-isis

To display the current running configuration of the Overlay Transport Virtualization (OTV) Intermediate-System-to-Intermediate System (IS-IS) process**,** use the **show run otv-isis** command.

show otv run otv-isis [**all**]

Syntax Description

all	(Optional) Specifies the running configuration.

Defaults

None

Command Modes

Global

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

This example shows how to display the current running configuration of the OTV IS-IS process:

```
switch# show run otv-isis
!Command: show running-config otv-isis
!Time: Mon Feb  1 03:05:57 2010
version 5.0(1)
interface Overlay1
  otv isis priority 1
  otv isis csnp-interval 1
  otv isis authentication-type cleartext
  otv isis authentication key-chain 1
switch#
```

Related Commands

Command	Description
show otv isis	Displays the IS-IS status and configuration.

spf-interval

To configure an SPF generation interval, 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

spf-max-wait	Specifies the maximum interval (in seconds) between two consecutive occurrences of an LSP being generated. The range is from 50 to 120000. Default value is 8000.
spf-initial-wait	Specifies the initial LSP generation delay (in milliseconds). The range is from 50 to 120000. The default is 50.
spf-second-wait	Specifies the hold time between the first and second LSP generation (in milliseconds). The range is from 50 to 120000. The default is 50.

Defaults

The defaults are as follows:

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

Command Modes

OTV IS-IS VPN

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(3)	This command was introduced.

Usage Guidelines

This command requires a Transport Services license.

Examples

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

```
switch(config-router-vrf)# spf-gen-interval 9000 60 70
switch(config-router-vrf)#
```

Related Commands

Command	Description
feature OTV	Enables OTV on this device.