



Integrated IS-IS Point-to-Point Adjacency over Broadcast Media

This document describes how to configure an integrated IS-IS point-to-point adjacency over broadcast media. When a network consists of only two networking devices connected to broadcast media and uses the integrated IS-IS protocol, it is better for the system to handle the link as a point-to-point link instead of as a broadcast link. This feature introduces a new command to make IS-IS behave as a point-to-point link between the networking devices.

Feature Specifications for the Integrated IS-IS Point-to-Point Adjacency over Broadcast Media

Feature History

Release	Modification
12.2(8)T	This feature was introduced.
12.0(22)S	This feature was integrated into Cisco IOS Release 12.0(22)S.
12.2(14)S	This feature was integrated into Cisco IOS Release 12.2(14)S.

Supported Platforms

Cisco 2600 Series, Cisco 3620, Cisco 3631, Cisco 3640, Cisco 3620, Cisco 3660, Cisco 3725, Cisco 3745, Cisco7200 Series, Cisco 7400 Series, Cisco 7500 Series, Universal Router Module, Cisco MC3810 Multiservice Access Concentrator, Cisco uBR7200 Series Universal Broadband Router

Determining Platform Support Through Cisco Feature Navigator

Cisco IOS software is packaged in feature sets that are supported on specific platforms. To get updated information regarding platform support for this feature, access Cisco Feature Navigator. Cisco Feature Navigator dynamically updates the list of supported platforms as new platform support is added for the feature.

Cisco Feature Navigator is a web-based tool that enables you to determine which Cisco IOS software images support a specific set of features and which features are supported in a specific Cisco IOS image. You can search by feature or release. Under the release section, you can compare releases side by side to display both the features unique to each software release and the features in common.

To access Cisco Feature Navigator, you must have an account on Cisco.com. If you have forgotten or lost your account information, send a blank e-mail to cco-locksmith@cisco.com. An automatic check will verify that your e-mail address is registered with Cisco.com. If the check is successful, account details with a new random password will be e-mailed to you. Qualified users can establish an account on Cisco.com by following the directions found at this URL:

<http://www.cisco.com/register>

Cisco Feature Navigator is updated regularly when major Cisco IOS software releases and technology releases occur. For the most current information, go to the Cisco Feature Navigator home page at the following URL:

<http://www.cisco.com/go/fn>

Availability of Cisco IOS Software Images

Platform support for particular Cisco IOS software releases is dependent on the availability of the software images for those platforms. Software images for some platforms may be deferred, delayed, or changed without prior notice. For updated information about platform support and availability of software images for each Cisco IOS software release, refer to the online release notes or, if supported, Cisco Feature Navigator.

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Prerequisites for Integrated IS-IS Point-to-Point Adjacency over Broadcast Media

This feature requires broadcast media connected to the interface and Integrated IS-IS configured on the interface.

Restrictions for Integrated IS-IS Point-to-Point Adjacency over Broadcast Media

This feature applies only to IS-IS interfaces connected to broadcast media.

Information About Integrated IS-IS Point-to-Point Adjacency over Broadcast Media

Before you configure IS-IS point-to-point adjacency over broadcast media, you should understand the following concept:

- [Benefits of Integrated IS-IS Point-to-Point Adjacency over Broadcast Media, page 3](#)

Benefits of Integrated IS-IS Point-to-Point Adjacency over Broadcast Media

Configuring an IS-IS point-to-point adjacency over broadcast media provides performance improvements to the network convergence times of the customer's network because the feature saves the system from electing a designated router (DR), prevents flooding from using CSNPs for database synchronization, and simplifies shortest path first (SPF) computations.

How to Configure Integrated IS-IS Point-to-Point Adjacency over Broadcast Media

The following task is required to configure Integrated IS-IS Point-to-Point Adjacency over broadcast media:

- [Configuring Integrated IS-IS Point-to-Point Adjacency over Broadcast Media, page 3](#)

Configuring Integrated IS-IS Point-to-Point Adjacency over Broadcast Media

To configure this feature, perform the steps in this section.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **interface fastethernet *number***
4. **isis network point-to-point**

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable	Enables higher privilege levels, such as privileged EXEC mode.
	Example: Router> enable	• Enter your password if prompted.
Step 2	configure terminal	Enters global configuration mode.
	Example: Router# configure terminal	

	Command or Action	Purpose
Step 3	<code>interface fastethernet number</code> Example: Router(config)# interface fastethernet 1/0	Configures a fast Ethernet interface and enters interface configuration mode.
Step 4	Router(config-if)# isis network point-to-point Example: Router(config-if)# isis network point-to-point	Configures an IS-IS network of two networking devices connected to broadcast media into a point-to-point network instead of a broadcast network.

Configuration Examples for Integrated IS-IS Point-to-Point Adjacency over Broadcast Media

The following example illustrates this feature:

- [Integrated IS-IS Point-to-Point Adjacency over Broadcast Media Example, page 4](#)

Integrated IS-IS Point-to-Point Adjacency over Broadcast Media Example

This example configures an IS-IS point-to-point adjacency over broadcast media:

```
interface fastethernet 1/0
 isis network point-to-point
```

Additional References

For additional information related to IS-IS, refer to the following references:

Related Documents

Related Topic	Document Title
Integrated IS-IS commands	<i>Cisco IOS IP Command Reference, Volume 2 of 3: Routing Protocols</i> , Release 12.2
Integrated IS-IS configuration tasks	<i>Cisco IOS IP Configuration Guide</i> , Release 12.2

Standards

Standards ¹	Title
No new or modified standards are supported by this feature, and support for existing standards has not been modified by this feature.	—

1. Not all supported standards are listed.

MIBs

MIBs ¹	MIBs Link
No new or modified MIBs are supported by this feature, and support for existing MIBs has not been modified by this feature.	To obtain lists of supported MIBs by platform and Cisco IOS release, and to download MIB modules, go to the Cisco MIB website on Cisco.com at the following URL: http://www.cisco.com/public/sw-center/netmgmt/cmtk/mibs.shtml

1. Not all supported MIBs are listed.

To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL:

<http://tools.cisco.com/ITDIT/MIBS/servlet/index>

If Cisco MIB Locator does not support the MIB information that you need, you can also obtain a list of supported MIBs and download MIBs from the Cisco MIBs page at the following URL:

<http://www.cisco.com/public/sw-center/netmgmt/cmtk/mibs.shtml>

To access Cisco MIB Locator, you must have an account on Cisco.com. If you have forgotten or lost your account information, send a blank e-mail to cco-locksmith@cisco.com. An automatic check will verify that your e-mail address is registered with Cisco.com. If the check is successful, account details with a new random password will be e-mailed to you. Qualified users can establish an account on Cisco.com by following the directions found at this URL:

<http://www.cisco.com/register>

RFCs

RFCs ¹	Title
No new or modified RFCs are supported by this feature, and support for existing RFCs has not been modified by this feature.	—

1. Not all supported RFCs are listed.

Technical Assistance

Description	Link
Technical Assistance Center (TAC) home page, containing 30,000 pages of searchable technical content, including links to products, technologies, solutions, technical tips, tools, and lots more. Registered Cisco.com users can log in from this page to access even more content.	http://www.cisco.com/public/support/tac/home.shtml

Command Reference

This section documents the new **isis network point-to-point** command. All other commands used with this feature are documented in the Cisco IOS Release 12.2 command reference publications.

isis network point-to-point

To configure a network of only two networking devices that use broadcast media and the integrated IS-IS routing protocol to function as a point-to-point link instead of a broadcast link, use the **isis network point-to-point** command in interface configuration mode. To disable the point-to-point usage, use the **no** form of this command.

isis network point-to-point

no isis network point-to-point

Syntax Description This command has no arguments or keywords.

Defaults No default behavior or values.

Command Modes Interface configuration

Command History	Release	Modification
	12.2(8)T	This command was introduced.
	12.0(22)S	This command was integrated into Cisco IOS Release 12.0(22)S.
	12.2(14)S	This command was integrated into Cisco IOS Release 12.2(14)S.

Usage Guidelines Use this command only on broadcast media in a network of only two networking devices. The command will cause the system to issue packets point-to-point rather than as broadcasts. Configure the command on both networking devices in the network.

Examples The following example configures a Fast Ethernet interface to act as a point-to-point interface:

```
interface fastethernet 1/0
 isis network point-to-point
```

