



IS-IS Fast-Flooding of LSPs Using the fast-flood Command

The IS-IS Fast-Flooding of LSPs Using the fast-flood Command feature improves Intermediate System-to-Intermediate System (IS-IS) convergence time when new link-state packets (LSPs) are generated in the network and shortest path first (SPF) is triggered by the new LSPs. This document introduces the new **fast-flood** command.

Feature History for the IS-IS Fast-Flooding of LSPs Using the fast-flood Command Feature

Release	Modification
12.0(27)S	This feature was introduced.
12.3(7)T	This feature was integrated into Cisco IOS Release 12.3(7)T.



Note

Software images for Cisco 12000 series Internet routers have been deferred to Cisco IOS Release 12.0(27)S1.

Finding Support Information for Platforms and Cisco IOS Software Images

Use Cisco Feature Navigator to find information about platform support and Cisco IOS software image support. Access Cisco Feature Navigator at <http://www.cisco.com/go/fn>. You must have an account on Cisco.com. If you do not have an account or have forgotten your username or password, click **Cancel** at the login dialog box and follow the instructions that appear.

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Information About IS-IS Fast-Flooding of LSPs Using the fast-flood Command

Before using the **fast-flood** command, you should understand the concept in the following section:

- [Benefits of Fast-Flooding, page 2](#)

Benefits of Fast-Flooding

If you are using the SPF and if very short values are used for the initial delay required (less than 40 milliseconds), SPF may start before the LSP that triggered SPF is flooded to neighbors. The router should always flood (at least) the LSP that triggered SPF before the router runs the SPF computation.

We recommend that you enable the fast-flooding of LSPs before the router runs the SPF computation, to ensure that the whole network achieves a faster convergence time.

How to Use the IS-IS Fast-Flooding of LSPs Using the fast-flood Command Feature

This section contains the following procedure:

- [Enabling Fast-Flooding, page 2](#) (optional)

Enabling Fast-Flooding

Perform this task to enable fast-flooding.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **router isis [tag]**
4. **fast-flood *lsp-number***
5. **end**
6. **show running-configuration**

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable Example: Router> enable	Enables privileged EXEC mode. <ul style="list-style-type: none"> Enter your password if prompted.
Step 2	configure terminal Example: Router# configure terminal	Enters global configuration mode.
Step 3	router isis tag Example: Router(config)# router isis first	Configures an IS-IS routing process and enters router configuration mode.
Step 4	fast-flood lsp-number Example: Router(config-router)# fast-flood 12	Fast-floods LSPs.
Step 5	end Example: Router(config-router)# end	Exits router configuration mode.
Step 6	show running-configuration Example: Router(config)# show running-configuration	Verifies that fast-flooding has been enabled.

Additional References

The following sections provide references related to the IS-IS Fast-Flooding of LSPs Using the fast-flood Command feature.

Related Documents

Related Topic	Document Title
IS-IS commands	“Integrated IS-IS Commands” chapter in the <i>Cisco IOS IP Command Reference, Volume 2 of 3: Routing Protocols</i> , Release 12.3 T
IS-IS configuration tasks	“Configuring Integrated IS-IS” chapter in the <i>Cisco IOS IP Configuration Guide</i>

Standards

Standards	Title
None	—

MIBs

MIBs	MIBs Link
None	To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL: http://www.cisco.com/go/mibs

RFCs

RFCs	Title
RFC 2328	<i>OSPF Version 2</i>

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, and tools. 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 **fast-flood** command:

fast-flood

To fast-flood Intermediate System-to-Intermediate System (IS-IS) link-state packets (LSPs), use the **fast-flood** command in router configuration mode. To disable the fast-flooding, use the **no** version of this command.

fast-flood *lsp-number*

no fast-flood *lsp-number*

Syntax Description

<i>lsp-number</i>	(Optional) The number of LSPs from 1 to 15 to be flooded before shortest path first (SPF) is started. The default is 5 LSPs.
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Defaults

Fast-flooding is disabled. Five LSPs are flooded before SPF is started.

Command Modes

Router configuration

Command History

Release	Modification
12.0(27)S	This command was introduced.
12.3(7)T	This command was integrated into Cisco IOS Release 12.3(7)T.

Usage Guidelines

The **fast-flood** command tells the router to flood a certain number of LSPs, as configured by the *lsp-number* argument (if no *lsp-number* value has been specified, the default value of 5 is used), that invoke SPF before running SPF. When you speed up the LSP flooding process, you improve overall network convergence time.

If you are running SPF and if you have configured very short values (less than 40 milliseconds) for the initial delay that is set by the *seconds* argument of the **incremental-spf** command, the SPF computation might start before the LSP that triggered SPF is flooded to neighbors. The router should always flood (at least) the LSP that triggered SPF before the router runs the SPF computation.

We recommend that you enable the fast-flooding of LSPs before the router runs the SPF computation, in order to achieve a faster convergence time.

Examples

In the following example, the **fast-flood** command is entered to configure the router to flood the first seven LSPs that invoke SPF, before the SPF computation is started. When the **show running-configuration** command is entered, the output confirms that fast-flooding has been enabled on the router.

```
Router# clear isis rib redistribution 10.1.0.0 255.255.0.0
Router> enable
Router# configure terminal
Router(config)# router isis first
Router(config-router)# fast-flood 7
Router(config-router)# end
Router# show running-configuration

fast-flood 7
```

Related Commands

Command	Description
incremental-spf	Enables incremental SPF.

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