

IS-IS IPv6 Advertise Passive Only

The IS-IS IPv6 Advertise Passive Only feature allows you to configure the Intermediate System-to-Intermediate System (IS-IS) instance on a device to advertise only IPv6 prefixes that belong to passive interfaces and exclude other connected IPv6 prefixes.

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Finding Feature Information

Your software release may not support all the features documented in this module. For the latest caveats and feature information, see Bug Search Tool and the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the feature information table.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to www.cisco.com/go/cfn. An account on Cisco.com is not required.

Prerequisites for IS-IS IPv6 Advertise Passive Only

Before you can use the IS-IS IPv6 Advertise Passive Only feature to exclude IPv6 prefixes of connected networks from IS-IS link-state protocol (LSP) data unit advertisements, the integrated IS-IS routing protocol must be configured. See the "Configuring a Basic IS-IS Network" section of the *IP Routing: ISIS Configuration Guide*.

Information About IS-IS IPv6 Advertise Passive Only

IPv6 Prefixes Only Allowed on Passive Interfaces

You can configure the IS-IS instance on a device to allow only IPv6 prefixes that belong to passive interfaces in its LSP advertisements. This configuration reduces the number of IPv6 prefixes carried in the LSP advertisement.

How to Configure IS-IS IPv6 Advertise Passive Only

Configuring IS-IS Instances on a Device to Advertise Passive Interface IPv6 Prefixes Only

SUMMARY STEPS

- 1. enable
- 2. configure terminal
- **3.** router isis [area-tag]
- **4. net** *net1*
- 5. interface loopback number
- **6. ipv6 address** {*ipv6*-address/prefix-length | prefix-name sub-bits/prefix-length}
- 7. exit
- **8. interface** *type number*
- **9. ipv6 address** {*ipv6-address/prefix-length* | *prefix-name sub-bits/prefix-length*}
- **10.** ipv6 router isis [area-tag]
- **11**. exit
- **12**. **router isis** [area-tag]
- **13.** passive-interface [default] type number
- 14. address-family ipv6
- 15. advertise passive-only
- 16. end

DETAILED STEPS

	Command or Action	Purpose	
Step 1 enable		Enables privileged EXEC mode.	
	Example:	• Enter your password if prompted.	
	Device> enable		

	Command or Action	Purpose	
Step 2	configure terminal	Enters global configuration mode.	
	Example:		
	Device# configure terminal		
Step 3	router isis [area-tag]	Configures an IS-IS routing process for IP on an interface,	
	Example:	attaches an area designator to the routing process, and enters router configuration mode.	
	Device(config)# router isis areal		
Step 4	net net1	Configures an IS-IS network entity table (NET) for the	
	Example:	routing process.	
	Device(config-router) # net 47.0010.0000.0000.0000.0001.0001.1111.1111.1111.00		
Step 5	interface loopback number	Configures a loopback interface and enters interface	
	Example:	configuration mode.	
	Device(config-router)# interface loopback 0		
Step 6	ipv6 address {ipv6-address/prefix-length prefix-name sub-bits/prefix-length}	Sets a primary IPv6 address for an interface.	
	Example:		
	Device(config-if)# ipv6 address 2001:688:1001:1000::1/128		
Step 7	exit	Returns to global configuration mode.	
	Example:		
	Device(config-if)# exit		
Step 8	interface type number	Configures an interface type and enters interface	
	Example:	configuration mode.	
	Device(config)# interface FastEthernet 0/0		
Step 9	ipv6 address {ipv6-address/prefix-length prefix-name sub-bits/prefix-length}	Configures an IPv6 address for the interface.	
	Example:		
	Device(config-if) # ipv6 address 2001:688:1001:100A::1/64		
Step 10	ipv6 router isis [area-tag]	Configures an IS-IS routing process for IPv6 on an	
-	Example:	interface, attaches an area designator to the routing process and enters router configuration mode.	
	Device(config-if)# ipv6 router isis area1		

	Command or Action	Purpose	
Step 11	exit	Returns to global configuration mode.	
	Example:		
	Device(config-if)# exit		
Step 12	router isis [area-tag]	Configures an IS-IS routing process for IP on an interface,	
	Example:	attaches an area designator to the routing process, and enters router configuration mode.	
	Device(config)# router isis areal		
Step 13	passive-interface [default] type number	Disables sending routing updates on an interface.	
	Example:		
	Device(config-router)# passive-interface loopback		
Step 14	address-family ipv6	Enters address family configuration mode.	
	Example:		
	Device(config-router)# address-family ipv6		
Step 15	advertise passive-only	Configures IS-IS to advertise only IPv6 prefixes that	
	Example:	belong to passive interfaces.	
	Device(config-router-af)# advertise passive-only		
Step 16	end	(Optional) Saves the configuration commands to the	
	Example:	running configuration file and returns to privileged EXEC mode.	
	Device(config-router-af)# end		

Configuration Examples for IS-IS IPv6 Advertise Passive Only

Example: Configuring IS-IS Instances on a Device to Advertise Only Passive Interfaces

```
Device(config-if)# ipv6 address 2001:688:1001:100A::1/64
Device(config-if)# ipv6 router isis area1
Device(config-if)# exit
Device(config)# router isis area1
Device(config-router)# passive-interface loopback 0
Device(config-router)# address-family ipv6
Device(config-router-af)# advertise passive-only
```

Additional References

Related Documents

Related Topic	Document Title
IPv6 addressing and connectivity	IPv6 Configuration Guide
Cisco IOS commands	Cisco IOS Master Commands List, All Releases
IPv6 commands	Cisco IOS IPv6 Command Reference
Cisco IOS IPv6 features	Cisco IOS IPv6 Feature Mapping
IS-IS commands	Cisco IOS IS-IS Command Reference
Configuring the integrated IS-IS routing protocol	"Configuring a Basic IS-IS Network" module of the <i>IP</i> Routing: ISIS Configuration Guide

Standards and RFCs

Standard/RFC	Title
RFCs for IPv6	IPv6 RFCs

MIBs

MIB	MIBs Link
	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

Technical Assistance

Description	Link
The Cisco Support and Documentation website provides online resources to download documentation, software, and tools. Use these resources to install and configure the software and to troubleshoot and resolve technical issues with Cisco products and technologies. Access to most tools on the Cisco Support and Documentation website requires a Cisco.com user ID and password.	

Feature Information for IS-IS IPv6 Advertise Passive Only

The following table provides release information about the feature or features described in this module. This table lists only the software release that introduced support for a given feature in a given software release train. Unless noted otherwise, subsequent releases of that software release train also support that feature.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to www.cisco.com/go/cfn. An account on Cisco.com is not required.

Table 1: Feature Information for IS-IS IPv6 Advertise Passive Only

Feature Name	Releases	Feature Information
IS-IS IPv6 Advertise Passive Only	15.2(4)M Cisco IOS XE Release 3.6S	Allows you to configure the IS-IS instance on a device to advertise only IPv6 prefixes that belong to passive interfaces and exclude other connected IPv6 prefixes. The following command was introduced or modified: advertise passive-only (IPv6).