



## IS-IS IPv6 Advertise Passive Only

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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.

- [Finding Feature Information, page 1](#)
- [Prerequisites for IS-IS IPv6 Advertise Passive Only, page 1](#)
- [Information About IS-IS IPv6 Advertise Passive Only, page 2](#)
- [How to Configure IS-IS IPv6 Advertise Passive Only, page 2](#)
- [Configuration Examples for IS-IS IPv6 Advertise Passive Only, page 5](#)
- [Additional References, page 5](#)
- [Feature Information for IS-IS IPv6 Advertise Passive Only, page 6](#)

### 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](http://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.

	Command or Action	Purpose
	<b>Example:</b> Device> enable	<ul style="list-style-type: none"> <li>Enter your password if prompted.</li> </ul>
<b>Step 2</b>	<b>configure terminal</b>  <b>Example:</b> Device# configure terminal	Enters global configuration mode.
<b>Step 3</b>	<b>router isis [area-tag]</b>  <b>Example:</b> Device(config)# router isis area1	Configures an IS-IS routing process for IP on an interface, attaches an area designator to the routing process, and enters router configuration mode.
<b>Step 4</b>	<b>net net1</b>  <b>Example:</b> Device(config-router)# net 47.0010.0000.0000.0000.0001.0001.1111.1111.1111.00	Configures an IS-IS network entity table (NET) for the routing process.
<b>Step 5</b>	<b>interface loopback number</b>  <b>Example:</b> Device(config-router)# interface loopback 0	Configures a loopback interface and enters interface configuration mode.
<b>Step 6</b>	<b>ipv6 address {ipv6-address/prefix-length   prefix-name sub-bits/prefix-length}</b>  <b>Example:</b> Device(config-if)# ipv6 address 2001:688:1001:1000::1/128	Sets a primary IPv6 address for an interface.
<b>Step 7</b>	<b>exit</b>  <b>Example:</b> Device(config-if)# exit	Returns to global configuration mode.
<b>Step 8</b>	<b>interface type number</b>  <b>Example:</b> Device(config)# interface FastEthernet 0/0	Configures an interface type and enters interface configuration mode.
<b>Step 9</b>	<b>ipv6 address {ipv6-address/prefix-length   prefix-name sub-bits/prefix-length}</b>	Configures an IPv6 address for the interface.

	Command or Action	Purpose
	<p><b>Example:</b></p> <pre>Device(config-if)# ipv6 address 2001:688:1001:100A::1/64</pre>	
<b>Step 10</b>	<p><b>ipv6 router isis</b> [<i>area-tag</i>]</p> <p><b>Example:</b></p> <pre>Device(config-if)# ipv6 router isis area1</pre>	Configures an IS-IS routing process for IPv6 on an interface, attaches an area designator to the routing process, and enters router configuration mode.
<b>Step 11</b>	<p><b>exit</b></p> <p><b>Example:</b></p> <pre>Device(config-if)# exit</pre>	Returns to global configuration mode.
<b>Step 12</b>	<p><b>router isis</b> [<i>area-tag</i>]</p> <p><b>Example:</b></p> <pre>Device(config)# router isis area1</pre>	Configures an IS-IS routing process for IP on an interface, attaches an area designator to the routing process, and enters router configuration mode.
<b>Step 13</b>	<p><b>passive-interface</b> [<b>default</b>] <i>type number</i></p> <p><b>Example:</b></p> <pre>Device(config-router)# passive-interface loopback 0</pre>	Disables sending routing updates on an interface.
<b>Step 14</b>	<p><b>address-family ipv6</b></p> <p><b>Example:</b></p> <pre>Device(config-router)# address-family ipv6</pre>	Enters address family configuration mode.
<b>Step 15</b>	<p><b>advertise passive-only</b></p> <p><b>Example:</b></p> <pre>Device(config-router-af)# advertise passive-only</pre>	Configures IS-IS to advertise only IPv6 prefixes that belong to passive interfaces.
<b>Step 16</b>	<p><b>end</b></p> <p><b>Example:</b></p> <pre>Device(config-router-af)# end</pre>	(Optional) Saves the configuration commands to the running configuration file and returns to privileged EXEC mode.

# Configuration Examples for IS-IS IPv6 Advertise Passive Only

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

```

Device> enable
Device# configure terminal
Device(config)# router isis areal
Device(config-router)# net 47.0010.0000.0000.0000.0001.0001.1111.1111.1111.00
Device(config-router)# interface loopback 0
Device(config-if)# ipv6 address 2001:688:1001:1000::1/128
Device(config-if)# exit
Device(config)# interface Ethernet 0/0
Device(config-if)# ipv6 address 2001:688:1001:100A::1/64
Device(config-if)# ipv6 router isis areal
Device(config-if)# exit
Device(config)# router isis areal
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	<i>IPv6 Configuration Guide</i>
Cisco IOS commands	<a href="#">Cisco IOS Master Commands List, All Releases</a>
IPv6 commands	<i>Cisco IOS IPv6 Command Reference</i>
Cisco IOS IPv6 features	<i>Cisco IOS IPv6 Feature Mapping</i>
IS-IS commands	<i>Cisco IOS IS-IS Command Reference</i>
Configuring the integrated IS-IS routing protocol	“Configuring a Basic IS-IS Network” module of the <i>IP Routing: ISIS Configuration Guide</i>

**Standards and RFCs**

Standard/RFC	Title
RFCs for IPv6	<i>IPv6 RFCs</i>

**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: <a href="http://www.cisco.com/go/mibs">http://www.cisco.com/go/mibs</a>

**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.	<a href="http://www.cisco.com/cisco/web/support/index.html">http://www.cisco.com/cisco/web/support/index.html</a>

## 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.

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**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: <b>advertise passive-only (IPv6)</b> .

