



BGP IPv6 PIC Edge and Core for IP/MPLS

The BGP IPv6 PIC Edge and Core for IP/MPLS feature improves convergence for both core and edge failures after a network failure.

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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 at the end of this module.

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.

Information About BGP IPv6 IPC Edge and Core for IP/MPLS

BGP IPv6 PIC Edge for IP MPLS

The BGP IPv6 PIC Edge for IP MPLS feature improves convergence for both core and edge failures after a network failure. The BGP IPv6 PIC edge for IP MPLS feature creates and stores a backup or alternate path in the Routing Information Base (RIB), the Forwarding Information Base (FIB), and in Cisco Express Forwarding, so that the backup or alternate path can immediately take over wherever a failure is detected, thus enabling fast failover.

How to Configure BGP IPv6 PIC Edge and Core for IP/MPLS

Configuring BGP IPv6 PIC Edge for IP MPLS

Because many service provider networks contain many VRFs, the BGP PIC feature allows you to configure BGP PIC feature for all VRFs at once. Performing this task in IPv6 address family configuration mode protects IPv6 VRFs.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **router bgp** *autonomous-system-number*
4. **address-family ipv6** [*vrf vrf-name*] [**unicast** | **multicast** | **vpn6**]
5. **bgp additional-paths install**
6. **bgp recursion host**

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable Example: Device> enable	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	configure terminal Example: Device# configure terminal	Enters global configuration mode.
Step 3	router bgp <i>autonomous-system-number</i> Example: Device(config)# router bgp 100	Configures the BGP routing process.
Step 4	address-family ipv6 [<i>vrf vrf-name</i>] [unicast multicast vpn6] Example: Device(config-router)# address-family ipv6 vrf_pic	Specifies a VRF table named vrf_pic, and enters IPv6 address family configuration mode.

	Command or Action	Purpose
Step 5	bgp additional-paths install Example: <pre>Device(config-router-af)# bgp additional-paths install</pre>	Calculates a backup path and installs it into the RIB and Cisco Express Forwarding.
Step 6	bgp recursion host Example: <pre>Device(config-router-af)# bgp recursion host</pre>	Enables the recursive-via-host flag for IPv6 address families.

Additional References

Related Documents

Related Topic	Document Title
Cisco IOS commands	Cisco IOS Master Commands List, All Releases
BGP commands	Cisco IOS IP Routing: BGP Command Reference
BGP PIC Edge for IP and MPLS-VPN	“BGP PIC Edge for IP and MPLS-VPN” module in the <i>IP Routing: BGP Configuration Guide</i>

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.	http://www.cisco.com/cisco/web/support/index.html

Feature Information for BGP IPv6 PIC Edge and Core for IP/MPLS

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 BGP IPv6 PIC Edge and Core for IP/MPLS

Feature Name	Releases	Feature Information
BGP IPv6 PIC Edge and Core for IP/MPLS	Cisco IOS XE Release 3.3S 15.2(3)T 15.2(4)S	<p>The BGP IPv6 PIC Edge and Core for IP/MPLS feature improves convergence for both core and edge failures after a network failure.</p> <p>The following commands were modified: bgp additional-paths install, bgp advertise-best-external, bgp recursion host.</p> <p>In Cisco IOS Release 15.2(4)S, support was added for the Cisco 7200 series router.</p>