Active Probe Source Address

The Active Probe Source Address feature introduces the capability to specify the source address for active probes transmitted from an Optimized Edge Routing (OER) border router.

History for the Active Probe Source Address Feature

Release	Modification
12.4(2)T	This feature was introduced.

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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Prerequisites for Active Probe Source Address

- A master controller and border router processes are enabled in your network.
- The interface that is to be configured as the address source for the active probe must be operational and have a unique IP address.

Information About Active Probe Source Address

By default, active probes use the source IP address of the OER external interface that transmits the probe. The Active Probe Source Address feature is configured on the border router. This feature allows you to specify the source address of the active probe by configuring the **active-probe address source** OER border router configuration command. When this command is configured, the primary IP address of the specified interface is used as the active probe source.

The active probe source interface IP address must be unique to ensure that the probe reply is routed back to the specified source interface. If the interface is not configured with an IP address, the active probe will not be generated. If the IP address is changed after the interface has been configured as an active probe source, active probing is stopped, and then restarted with the new IP address. If the IP address is removed after the interface has been configured as an active probe source, active probing is stopped and not restarted until a valid primary IP address is configured.

How to the Configure the Source Address of an Active Probe

The section describes how to specify the source interface for active probing. The active probe source interface is configured on the border router with the **active-probe address source** command in OER border router configuration mode. The active probe source interface IP address must be unique to ensure that the probe reply is routed back to the specified source interface.

Defaults

- The source IP address is used from the default OER external interface that transmits the active probe when this command is not enabled or if the **no** form is entered.
- If the interface is not configured with an IP address, the active probe will not be generated.
- If the IP address is changed after the interface has been configured as an active probe source, active probing is stopped, and then restarted with the new IP address.
- If the IP address is removed after the interface has been configured as an active probe source, active probing is stopped and not restarted until a valid primary IP address is configured.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **oer border**
4. **active-probe address source interface** *type number*
5. **end**

DETAILED STEPS

	Command or Action	Purpose
Step 1	**enable** **Example:** `Router> enable`	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	**configure terminal** **Example:** `Router# configure terminal`	Enters global configuration mode.
Step 3	**oer border** **Example:** `Router(config)# oer border`	Enters OER border router configuration mode to configure a router as a border router.
Step 4	**active-probe address source interface type number** **Example:** `Router(config-oer-br)# active-probe address source interface FastEthernet 0/0`	Configures an interface on a border router as the active-probe source. • The example configures interface FastEthernet 0/0 as the source interface.
Step 5	**end** **Example:** `Router(config-oer-br)# end`	Exits OER border router configuration mode, and enters Privileged EXEC mode.

Configuration Examples for Active Probe Source Address

The following example, starting in Global configuration mode, configures FastEthernet 0/0 as the active-probe source interface.

```
Router(config)# oer border
Router(config-oer-br)# active-probe address source interface FastEthernet 0/0
Router(config-oer-br)# end
```

Additional References

The following sections provide references related to the Active Probe Source Address Source feature:

Related Documents

Related Topic	Document Title
Cisco IOS Optimized Edge Routing Configuration	http://www.cisco.com/en/US/docs/ios/12_3t/12_3t11/feature/guide/gt_oer2.html

Standards

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

MIBs

MIB	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

RFCs

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

Technical Assistance

Description	Link
The Cisco Technical Support website contains thousands of 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/techsupport

Command Reference

This section documents new commands only.

active-probe address source

To configure an interface on a border router as the active-probe source, use the **active-probe** command in OER border router configuration mode. To configure active probing to use a default exit interface, use the **no** form of this command.

active-probe source address interface *type number*

no active-probe source address interface

Syntax Description

type	Specifies the interface type.
number	Specifies the interface number.

Command Default

The source IP address is used from the default OER external interface that transmits the active probe.

Command Modes

OER border router

Command History

Release	Modification
12.4(2)T	This command was introduced.

Usage Guidelines

The **active-probe address source** command allows you to specify the source interface, from which active probes are transmitted. When this command is configured, the primary IP address of the specified interface is used as the active probe source. The active probe source interface IP address must be unique to ensure that the probe reply is routed back to the specified source interface. If the interface is not configured with an IP address, the active probe will not be generated. If the IP address is changed after the interface has been configured as an active probe source, active probing is stopped, and then restarted with the new IP address. If the IP address is removed after the interface has been configured as an active probe source, active probing is stopped and is not restarted until a valid primary IP address is configured.

Note For eBGP peering sessions, the IP address of the eBGP peer must be reachable from the border router via a connected route in order for active probes to be generated.

Examples

The following example configures the FastEthernet 0/0 interface as the active probe source:

```
Router(config)# oer border
Router(config-oer-border)# active-probe address source FastEthernet 0/0
```

Related Commands

Command	Description
active-probe	Configures an active probe for a target prefix.
oer	Enables an OER process and configures a router as an OER border router or as an OER master controller.