



Mobile Networks Dynamic Collocated Care-of Address

Before the introduction of the Mobile Networks Dynamic Collocated Care-of Address feature, Cisco mobile networks supported foreign agent care-of address (CoA) registration and static collocated care-of address (CCoA) registration.

Static CCoA registration is considered a special case and applies to networks where the endpoint IP address is always fixed, such as in a Cellular Digital Packet Data (CDPD) wireless network. The Mobile Networks Static Collocated Care-of Address feature allows a mobile router with a static IP address to roam to foreign networks where foreign agents are not deployed.

The Mobile Networks Dynamic Care-of Address feature allows the mobile router to register with the home agent using a CCoA that is acquired dynamically via the IP Control Protocol (IPCP). Support for CCoAs acquired through the Dynamic Host Configuration Protocol (DHCP) is planned for a future release.

Feature History for the Mobile Networks Dynamic Collocated Care-of Address Feature

Release	Modification
12.3(4)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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Restrictions for Mobile Networks Dynamic CCoA

The Mobile Networks Dynamic CCoA feature can be configured only on serial (point-to-point) interfaces.

Information About Mobile Networks Dynamic CCoA

Before you configure the Mobile Networks Dynamic CCoA feature, you should understand the following concepts:

- [Care-of Addresses, page 2](#)
- [Mobile Networks Dynamic CCoA Feature Design, page 2](#)
- [Benefits of Mobile Networks Dynamic CCoA, page 3](#)

Care-of Addresses

If a mobile router determines that it is connected to a foreign network, it acquires a care-of address. This care-of address is the exit point of the tunnel from the home agent toward the mobile router. The care-of address is included in the Mobile IP registration request and is used by the home agent to forward packets to the mobile router in its current location. There are two types of care-of addresses:

- Care-of address acquired from a foreign agent
- Collocated care-of address

A foreign agent care-of address is an IP address on a foreign agent that is advertised on the foreign network being visited by a mobile router. A foreign agent CoA can be shared by other mobile routers. A collocated care-of address is an IP address assigned to the interface of the mobile router itself. A collocated care-of address represents the current position of the mobile router on the foreign network and can be used by only one mobile router at a time.

Mobile Networks Dynamic CCoA Feature Design

The Mobile Networks Dynamic CCoA feature is very similar to the static CCoA implementation. Static CCoA uses the address configured on the roaming interface as the CCoA. Dynamic CCoA uses IPCP to obtain a CCoA for the roaming interface. See the [Cisco Mobile Networks - Static Collocated Care-of Address](#) feature documentation for more information on the static CCoA implementation.

For both static and dynamic CCoA, the interface can be configured to exclusively use CCoAs for registration or to use a foreign agent CoA if one is available. In the foreign agent case, when an interface first comes up, it will attempt to discover foreign agents on the link by soliciting and listening for agent advertisements. If a foreign agent is found, the mobile router will register using the advertised CoA. The interface will continue to register using a CoA as long as a foreign agent is heard. When foreign agents are not heard, either because no advertisements are received or the foreign agent advertisement hold time

expires, CCoA processing is enabled and the interface registers its CCoA. The CCoA is the interface's statically configured or dynamically acquired primary IP address. If a foreign agent is heard again, the interface will again register the foreign agent CoA.

You can configure the interface to register only its CCoA and ignore foreign agent advertisements by using the **ip mobile router-service collocated ccoa-only** option.

When the mobile router registers a CCoA with a home agent, a single HA-CCoA tunnel is created and is used for traffic to the mobile router and its mobile networks.

The CCoA configured on the mobile router interface will become the endpoint of the HA-CCoA tunnel as the home agent tunnels packets to the mobile router. The mobile router will use this same tunnel to reverse tunnel packets back to the home agent if configured for reverse tunnel.

Benefits of Mobile Networks Dynamic CCoA

This feature allows a mobile router to roam to foreign networks where foreign agents are not deployed and to obtain a CCoA dynamically through IPCP.

How to Configure Mobile Networks Dynamic CCoA

This section contains the following procedures:

- [Enabling Dynamic CCoA Processing on a Mobile Router Interface, page 3](#) (required)
- [Enabling CCoA-Only Processing on a Mobile Router Interface, page 4](#) (optional)
- [Verifying the Dynamic CCoA Configuration, page 6](#) (optional)

Enabling Dynamic CCoA Processing on a Mobile Router Interface

This task shows how to enable dynamic CCoA processing on a mobile router interface.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **interface** *type number*
4. **ip address negotiated**
5. **encapsulation ppp**
6. **ip mobile router-service roam**
7. **ip mobile router-service collocated**
8. **ip mobile router-service collocated registration retry** *seconds*

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	interface type number Example: Router(config)# interface serial 1	Configures an interface type and enters interface configuration mode. <ul style="list-style-type: none"> Dynamic CCoAs can be acquired only on serial interfaces.
Step 4	ip address negotiated Example: Router(config-if)# ip address negotiated	Specifies that the IP address for a particular interface is obtained via IPCP address negotiation.
Step 5	encapsulation ppp Example: Router(config-if)# encapsulation ppp	Enables PPP encapsulation on a specified serial interface.
Step 6	ip mobile router-service roam Example: Router(config-if)# ip mobile router-service roam	Enables roaming on an interface.
Step 7	ip mobile router-service collocated Example: Router(config-if)# ip mobile router-service collocated	Enables CCoA processing on a mobile router interface. <ul style="list-style-type: none"> The interface will first solicit foreign agent advertisements and register with a foreign agent CoA if an advertisement is heard. If no advertisements are received, CCoA registration is attempted.
Step 8	ip mobile router-service collocated registration retry seconds Example: Router(config-if)# ip mobile router-service collocated registration retry 3	(Optional) Configures the time period that the mobile router waits before sending another registration request after a registration failure. <ul style="list-style-type: none"> The default value is 60 seconds. You need to use this command only when a different retry interval is desired.

Enabling CCoA-Only Processing on a Mobile Router Interface

Perform this task to configure a mobile router interface to ignore foreign agent advertisements and exclusively use CCoAs for registration to the home agent. This functionality works for both static and dynamic CCoA processing.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **interface** *type number*
4. **ip address** *ip-address mask*
or
ip address negotiated
5. **ip mobile router-service roam**
6. **ip mobile router-service collocated ccoa-only**
7. **ip mobile router-service collocated gateway** *ip-address ccoa-only*
8. **ip mobile router-service collocated registration retry** *seconds*

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	interface <i>type number</i> Example: Router(config)# interface ethernet 1	Configures an interface type and enters interface configuration mode.
Step 4	ip address <i>ip-address mask</i> or ip address negotiated Example: Router(config-if)# ip-address 172.71.6.23 255.255.255.0 or Router(config-if)# ip address negotiated	Sets a primary IP address for an interface. <ul style="list-style-type: none">• This is the static CCoA. Static CCoAs can be configured on serial or Ethernet interfaces. or Specifies that the IP address for a particular interface is obtained via IPCP address negotiation. <ul style="list-style-type: none">• Use this command for dynamic CCoA processing. Dynamic CCoAs can be acquired only on serial interfaces.
Step 5	ip mobile router-service roam Example: Router(config-if)# ip mobile router-service roam	Enables roaming on an interface.

	Command or Action	Purpose
Step 6	<p>ip mobile router-service collocated ccoa-only</p> <p>Example: Router(config-if)# ip mobile router-service collocated ccoa-only</p>	<p>Enables CCoA-only processing on a mobile router interface.</p> <ul style="list-style-type: none"> • This command can be used on serial interfaces for dynamic or static CCoA processing. • This command disables foreign-agent CoA processing and limits the interface to CCoA processing only. • If you use this command on an interface already registered with a foreign agent CoA, the mobile router will re-register immediately with a CCoA.
Step 7	<p>ip mobile router-service collocated gateway ip-address ccoa-only</p> <p>Example: Router(config-if)# ip mobile router-service collocated gateway 10.21.0.2 ccoa-only</p>	<p>(Optional) Enables CCoA-only processing on a mobile router interface.</p> <ul style="list-style-type: none"> • This command can be used only on Ethernet interfaces for static CCoA processing. • The gateway IP address is the next hop IP address for the mobile router to forward packets. The gateway IP address is required only on Ethernet interfaces, and must be on the same logical subnet as the primary interface.
Step 8	<p>ip mobile router-service collocated registration retry seconds</p> <p>Example: Router(config-if)# ip mobile router-service collocated registration retry 3</p>	<p>(Optional) Configures the time period that the mobile router waits before sending another registration request after a registration failure.</p> <ul style="list-style-type: none"> • The default value is 60 seconds. You need to use this command only when a different retry interval is desired.

Verifying the Dynamic CCoA Configuration

Perform this task to verify the dynamic CCoA configuration:

SUMMARY STEPS

1. **show ip mobile router interface**
2. **show ip mobile router agent**
3. **show ip mobile router registration**
4. **show ip mobile router**
5. **show ip mobile binding**

DETAILED STEPS

	Command or Action	Purpose
Step 1	show ip mobile router interface Example: Mobilerouter# show ip mobile router interface	Displays information about the interface that the mobile router is using for roaming. <ul style="list-style-type: none"> If the interface is configured for CCoA, the CCoA (IP address) is displayed even if the interface is down.
Step 2	show ip mobile router agent Example: Mobilerouter# show ip mobile router agent	Displays information about the agents for the mobile router. <ul style="list-style-type: none"> If the interface configured for CCoA is up, an entry is shown.
Step 3	show ip mobile router registration Example: Mobilerouter# show ip mobile router registration	Displays the pending and accepted registrations of the mobile router.
Step 4	show ip mobile router Example: Mobilerouter# show ip mobile router	Displays configuration information and monitoring statistics about the mobile router.
Step 5	show ip mobile binding Example: Homeagent# show ip mobile router	Displays the mobility binding table. <ul style="list-style-type: none"> If a CCoA is registered with the home agent, (D) direct-to-mobile node is displayed in the Routing Options field.

Configuration Examples for Mobile Networks Dynamic CCoA

This section provides the following configuration example:

- [Mobile Networks Dynamic CCoA: Example, page 7](#)
- [Mobile Networks with CCoA-Only Processing: Example, page 8](#)

Mobile Networks Dynamic CCoA: Example

The following example shows a mobile router configured to obtain a CCoA dynamically through IPCP:

```
interface loopback 0
! MR home address
 ip address 10.1.0.1 255.255.255.255
!
! Dynamic CCoA.
interface Serial 3/1
 ip address negotiated
 encapsulation ppp
 ip mobile router-service roam
 ip mobile router-service collocated
```

Mobile Networks with CCoA-Only Processing: Example

The following example shows a mobile router configured to obtain a static CCoA only. The interface will not listen to foreign agent advertisements.

```
interface loopback1
 ip address 20.0.4.1 255.255.255.255
!
! Static CCoA with CCoA-only option
interface Ethernet 1/0
 ip address 10.0.1.1 255.255.255.0
 ip mobile router-service roam
 ip mobile router-service collocated gateway 10.0.1.2 ccoa-only
 ip mobile router-service collocated registration retry 30
```

The following example shows a mobile router configured to obtain a dynamic CCoA only. The interface will not listen to foreign agent advertisements.

```
interface loopback1
 ip address 20.0.4.1 255.255.255.255
!
! Dynamic CCoA with CCoA-only option
interface Serial 2/0
 ip address negotiated
 encapsulation ppp
 ip mobile router-service roam
 ip mobile router-service collocated ccoa-only
 ip mobile router-service collocated registration retry 30
```

Additional References

The following sections provide additional references related to the Mobile Networks Dynamic CCoA feature.

Related Documents

Related Topic	Document Title
Mobile IP commands: complete command syntax, command mode, defaults, usage guidelines, and examples	<i>Cisco IOS IP Command Reference, Volume 4 of 4: IP Mobility</i> , Release 12.3 T
Mobile IP commands and configuration tasks related to mobile networks	<i>Cisco Mobile Networks</i> feature document, Release 12.2(4)T and 12.2(13)T
Static CCoA documentation	<i>Cisco Mobile Networks - Static Collocated Care-of Address</i> , Release 12.2(15)T

Standards

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

MIBs

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

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 modified commands. All other commands used with this feature are documented in the Cisco IOS Release 12.3 T command reference publications.

- [ip mobile router-service collocated](#)
- [show ip mobile router agent](#)
- [show ip mobile router interface](#)

ip mobile router-service collocated

To enable static or dynamic collocated care-of address (CCoA) processing on a mobile router interface, use the **ip mobile router-service collocated** command in interface configuration mode. To disable static or dynamic CCoA processing, use the **no** form of this command.

ip mobile router-service collocated [*gateway ip-address*] [**ccoa-only**]

no ip mobile router-service collocated [*gateway ip-address*] [**ccoa-only**]

Syntax Description

gateway ip-address	(Optional) Next hop IP address for the mobile router to forward packets. The gateway ip-address combination is only seen while configuring an Ethernet interface.
ccoa-only	(Optional) Enables the interface to use CCoA processing only.

Defaults

No default behavior or values

Command Modes

Interface configuration

Command History

Release	Modification
12.2(15)T	This command was introduced.
12.3(4)T	The ccoa-only keyword was added. Dynamic CCoA functionality was added.

Usage Guidelines

The primary IP address of the interface is used as the CCoA. The interface must already be configured as a roaming interface using the **ip mobile router-service roam** interface configuration command for both static and dynamic CCoA processing.

The mobile router can register with the home agent using a CCoA that was acquired dynamically via the IP Control Protocol (IPCP).

The gateway IP address is the next-hop IP address for registration packets. Upon successful registration, this address will be used as the default gateway and default route.

You need not specify the **gateway ip-address** combination if using a serial interface. The **gateway ip-address** combination is required on all non point-to-point interfaces such as Ethernet LANs and must be on the same logical subnet as the primary interface IP address.

You can configure the mobile router interface to register only its CCoA and ignore foreign agent advertisements by using the **ip mobile router-service collocated cooa-only** option. Using this command on an interface already registered with a foreign agent CoA will cause the mobile router to re-register immediately with a CCoA.

Using the **no ip mobile router-service collocated cooa-only** command on an interface already registered with a CCoA will cause the interface to deregister its CCoA and begin foreign agent discovery.

Examples

The following example enables static CCoA processing on a mobile router interface:

```
interface FastEthernet0/0
! Primary IP address is the static CCoA
ip address 172.21.58.23 255.255.255.0
ip mobile router-service roam
! Gateway IP address is next-hop destination
ip mobile router-service collocated gateway 172.21.58.1
```

The following example enables dynamic CCoA processing on a mobile router interface:

```
interface Serial 3/1
ip address negotiated
encapsulation ppp
ip mobile router-service roam
ip mobile router-service collocated
```

The following example enables static CCoA-only processing. The interface will not listen to foreign agent advertisements.

```
interface Ethernet 1/0
ip address 10.0.1.1 255.255.255.0
ip mobile router-service roam
ip mobile router-service collocated gateway 10.0.1.2 ccoa-only
ip mobile router-service collocated registration retry 30
```

The following example enables dynamic CCoA-only processing. The interface will not listen to foreign agent advertisements.

```
interface Serial 1/0
ip address negotiated
encapsulation ppp
ip mobile router-service roam
ip mobile router-service collocated ccoa-only
```

Related Commands

Command	Description
ip mobile router-service collocated registration retry	Configures the time period that the mobile router waits before sending another registration request after a registration failure.
ip mobile router-service roam	Enables the mobile router to discover on which configured interface it will discover foreign agents.

show ip mobile router agent

To display information about the agents for the mobile router, use the **show ip mobile router agent** command in privileged EXEC mode.

show ip mobile router agent

Syntax Description This command has no arguments or keywords.

Defaults No default behavior or values.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(4)T	This command was introduced.
	12.2(15)T	This command was enhanced to display information about the retry interval used in static collocated care-of address (CCoA) processing.
	12.3(4)T	This command was enhanced to display information about dynamic CCoA processing.

Usage Guidelines This command displays a list containing information on all foreign agents currently discovered on the mobile router. This list also displays information about each interface configured for static or dynamic CCoA. An interface must be “up” to be displayed on the list.

You can use the **clear ip mobile router agent** command to clear foreign agent care-of addresses (CoAs) but not static CCoAs. CCoAs cannot be cleared.

Examples The following is sample output from the **show ip mobile router agent** command when a CCoA is configured on a mobile router interface:

```
Router# show ip mobile router agent

Mobile Router Agents:

Foreign agent 45.0.0.2:
  Care-of address 42.0.0.2
  Interface Ethernet1, MAC 0030.9492.6627
  Agent advertisement seq 56649, Flags rbhFmGvt, Lifetime 36000
  IRDP advertisement lifetime 30, Remaining 29
  Last received 02/13/02 17:55:48
  First heard 02/13/02 11:21:46

Collocated Care-of address 48.0.0.1 (static):
  Interface Ethernet2
  Default gateway 48.0.0.2
  Registration retry interval 60
  Next CCoA reg attempt in 00:00:55 seconds
```

```
Collocated Care-of address 11.0.0.7 (dynamic):
  Interface Serial0
  Registration retry interval 60
```

Table 1 describes the significant fields shown in the display.

Table 1 *show ip mobile router agent Field Descriptions*

Field	Description
Home or Foreign Agent	IP address of the foreign agent (or home agent).
Care-of address	Attachment point in the foreign network.
Interface	Interface on which the agent was learned.
MAC	MAC address of the learned agent.
Agent advertisement seq/Flags/Lifetime	Agent advertisement sequence number, flags, and lifetime (in seconds). The sequence number can be used to detect reboot by the agent. The flags are services provided by the agent. The lifetime is the limit advertised by the agent.
IRDP advertisement lifetime/Remaining	The IRDP advertisement lifetime is the interval in which this foreign agent will provide service. When the lifetime expires, the foreign agent is disconnected from the mobile router. The remaining field shows the time before expiration.
Last received	Date and time when advertisement was received.
First heard	Date and time when the agent was first heard. This is useful information in determining which agent to use when multiple learned agents are heard by the mobile router.
Collocated Care-of address	CCoA configured on the mobile router interface. The type of CCoA (static or dynamic) is given in parentheses.
Interface	Mobile router interface.
Default gateway	The next-hop IP address for registration packets. Upon successful registration, this address will be used as the default gateway and default route. This field is only displayed if the IP address is fixed (static) on an Ethernet interface.
Registration retry interval	The interval that the mobile router waits before sending another registration request if a registration request failed.
Next CCoA reg attempt in 00:00:55 seconds	If the interval timer is running, the time remaining (in seconds) until the next registration attempt. Only appears if a registration attempt (and its retries) has failed and the registration retry interval timer is running.

Related Commands

Command	Description
clear ip mobile router agent	Deletes learned agents and the corresponding care-of address of the foreign agent from the mobile router agent table.

show ip mobile router interface

To display information about the interfaces configured for roaming, use the **show ip mobile router interface** command in privileged EXEC mode.

show ip mobile router interface

Syntax Description This command has no arguments or keywords.

Defaults No default behavior or values

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(4)T	This command was introduced.
	12.2(15)T	This command was enhanced to display information about static collocated care-of addresses (CCoAs).
	12.3(4)T	This command was enhanced to display information about dynamic CCoAs.

Usage Guidelines The mobile router uses the interfaces for roaming, discovering foreign agents, and registering its location on the foreign network.

Use this command to display information about roaming interfaces. If the interface is configured for collocated care-of address (CCoA), the CCoA (IP address) is displayed. If it is not configured for a CCoA, “none” is displayed. The interface can be up or down.

Examples The following is sample output from the **show ip mobile router interface** command. Ethernet interface 2 has no CCoA configuration, serial interface 0 has a static CCoA configuration, and serial interface 1 has a dynamic CCoA address, with CCoA only.

```
Router# show ip mobile router interface
```

```
Mobile Router Interfaces:
```

```
Listed in order of preference.
```

```
Ethernet2:
```

```
Priority 102, Bandwidth 10000, Address 48.0.0.5
Periodic solicitation disabled, Interval 600 sec
Retransmit Init 1000, Max 5000 msec, Limit 3
Current 0, Remaining 0 msec, Count 0
Hold down 0 sec
Routing disallowed
Collocated CoA disabled
```

```
Serial0:
```

```
Priority 100, Bandwidth 1544, Address 11.0.0.7
```

```

Periodic solicitation disabled, Interval 600 sec
Retransmit Init 1000, Max 5000 msec, Limit 3
Current 1000, Remaining 0 msec, Count 1
Hold down 0 sec
Routing disallowed
Collocated CoA 11.0.0.7 (static)

Serial1
Priority 100, Bandwidth 1544, Address 10.0.0.5
Periodic solicitation disabled, Interval 600 sec
Retransmit Init 1000, Max 5000 msec, Limit 3
Current 0, Remaining 0 msec, Count 0
Hold down 0 sec
Routing disallowed
Collocated CoA 45.0.0.5 - Solicit FA first

```

Table 2 describes the significant fields shown in the display.

Table 2 *show ip mobile router interface Field Descriptions*

Field	Description
Priority	Interface priority. Comparison to decide the preferred interface to register by the mobile router. The interface with the highest priority is used to send registrations.
Bandwidth	Interface bandwidth. When multiple interfaces have the highest priority, the highest bandwidth is the preferred choice.
Address	Interface IP address. If priority and bandwidth are the same among roaming interfaces, the highest address is preferred by the mobile router.
Periodic solicitation	Send solicitations periodically (enabled) or wait for periodic advertisements (disabled).
Interval	Period of time (in seconds) to wait before sending the next periodic solicitation.
Retransmit Init/Max/Limit	Solicitation retry settings. Displays the initial and maximum transmission timers and the limit on the number of retries allowed.
Current/Remaining	Current retransmission interval and remaining time (in milliseconds) before it expires.
Count	Retransmission count.
Hold down	Period of time (in seconds) to wait before registering to a learned agent.
Routing	Routing is disallowed when the mobile router is roaming and allowed when the mobile router is home.
Collocated CoA	IP address displayed if the interface is configured for CCoA; otherwise disabled is displayed. The CCoA is displayed if configured, even if the interface is down. The type of CCoA (static or dynamic) is given in parentheses.
Solicit FA first	Interface will solicit foreign agents first. If none are heard, CCoA processing is enabled on the interface.

■ show ip mobile router interface

Related Commands	Command	Description
	ip mobile router-service	Enables mobile router service on an interface.
	ip mobile router-service collocated	Enables static or dynamic CCoA processing on a mobile router interface.

Glossary

care-of address—The termination point of the tunnel to a mobile node or mobile router. This can be a collocated care-of address, by which the mobile node or mobile router acquires a local address and detunnels its own packets, or a foreign agent care-of address, by which a foreign agent detunnels packets and forwards them to the mobile node or mobile router.

collocated care-of address—The termination point of a tunnel toward a mobile node or mobile router. A CCoA is a local address that the mobile node or mobile router associated with one of its own network interfaces.

foreign agent—A router on the visited network of a foreign network that provides routing services to the mobile node or mobile router while registered. The foreign agent detunnels and delivers packets to the mobile node or mobile router that were tunneled by the home agent of the mobile node. For packets sent by a mobile node, the foreign agent may serve as a default router for registered mobile nodes.

**Note**

Refer to [Internetworking Terms and Acronyms](#) for terms not included in this glossary.

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