URPF Commands

This module describes the commands used in enabling the Unicast Reverse Path Forwarding (uRPF).

For detailed information about FIPS configuration tasks, and examples, see the *Configuring FIPS Mode* chapter in the *System Security Configuration Guide for Cisco ASR 9000 Series RoutersSystem Security Configuration Guide for Cisco 8000 Series Routers*.

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hw-module profile cef unipath-surpf

To configure uRPF on strict mode, use the **hw-module profile cef unipath-surpf** command in the Global configuration mode.

hw-module profile cef unipath-surpf enable

Syntax Description

enable	Enables uRPF in strict mode.

Command Default

Strict mode in uRPF is disabled.

Command Modes

Global configuration

Command History

Release	Modification
Release 7.9.1	This command was introduced.

Usage Guidelines

You must configure both IPv4 and IPv6 commands to enable uRPF in strict mode.

You must reload the router after using the **hw-module profile cef unipath-surpf** command.

To disable the strict mode in uRPF use the **no** form of the **hw-module profile cef unipath-surpf** command.

Task ID

Task ID	Operation
acl	read, write
network	read, write
ipv4	read, write
ipv6	read, write

Example

This example shows how to configure uRPF in strict mode on the router:

```
Router# configure
Router(config)# hw-module profile cef unipath-surpf enable
Router(config-if)# commit
```

ipv4/ipv6 verify unicast source reachable-via

To configure uRPF, use the **ipv4 verify unicast source reachable-via** command in the Interface configuration mode.

{ **ipv4** | **ipv6** } **verify unicast source reachable-via** { **any** | **rx** } [**allow-default**]

Syntax Description

any	(uRPF Loose Mode) Configures a source that is reachable any interface.
rx	(uRPF Strict Mode) Configures a source that is reachable onl the interface that ia same the interface used to transmit the back to source.
allow-default	Enables the matching of default routes.

Command Default

None

Command Modes

Interface configuration

Command History

Release	Modification
Release 7.9.1	The **rx** keyword was introduced.
Release 7.3.15	This command was introduced.

Usage Guidelines

You must configure both IPv4 and IPv6 commands to enable uRPF.

Task ID

Task ID	Operation
acl	read, write
network	read, write
ipv4	read, write
ipv6	read, write

Example

This example shows how to configure uRPF in loose mode on the router along with the default address.:

```
Router# configure
Router(config)# interface hundredGigE 0/0/0/0
Router(config-if)# ipv4 verify unicast source reachable-via any allow-default
Router(config-if)# ipv6 verify unicast source reachable-via any allow-default
Router(config-if)# commit
```

This example shows how to configure uRPF in strict mode on the router along with the default address.:

```
Router# configure
Router(config)# hw-module profile cef unipath-surpf enable
Router(config)# interface hundredGigE 0/0/0/0
Router(config-if)# ipv4 verify unicast source reachable-via rx allow-default
Router(config-if)# ipv6 verify unicast source reachable-via rx allow-default
Router(config-if)# commit
```