



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 Routers* and *System 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	<p>You must configure both IPv4 and IPv6 commands to enable uRPF in strict mode.</p> <p>You must reload the router after using the hw-module profile cef unipath-surpf command.</p> <p>To disable the strict mode in uRPF use the no form of the hw-module profile cef unipath-surpf command.</p>	

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 on the interface that is same as the interface used to transmit the traffic 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	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
```