



## URPF Commands

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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*.

- [hw-module profile cef unipath-surpf](#), on page 2
- [ipv4/ipv6 verify unicast source reachable-via](#), on page 3

# 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
```

<b>Syntax Description</b>	<b>enable</b>	Enables uRPF in strict mode.
<b>Command Default</b>	Strict mode in uRPF is disabled.	
<b>Command Modes</b>	Global configuration	
<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	Release 7.9.1	This command was introduced.
<b>Usage Guidelines</b>	<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 <b>hw-module profile cef unipath-surpf</b> command.</p> <p>To disable the strict mode in uRPF use the <b>no</b> form of the <b>hw-module profile cef unipath-surpf</b> command.</p>	

<b>Task ID</b>	<b>Task ID</b>	<b>Operation</b>
	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 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 <b>rx</b> 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 ID
	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
```