



## Unknown Unicast Flood Control

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### Note

- For complete syntax and usage information for the commands used in this chapter, see these publications:  
[http://www.cisco.com/en/US/products/ps11846/prod\\_command\\_reference\\_list.html](http://www.cisco.com/en/US/products/ps11846/prod_command_reference_list.html)
- Cisco IOS Release 15.2SY supports only Ethernet interfaces. Cisco IOS Release 15.2SY does not support any WAN features or commands.



### Tip

For additional information about Cisco Catalyst 6500 Series Switches (including configuration examples and troubleshooting information), see the documents listed on this page:

[http://www.cisco.com/en/US/products/hw/switches/ps708/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/hw/switches/ps708/tsd_products_support_series_home.html)

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## Prerequisites for Unknown Traffic Flood Control

None.

## Restrictions for Unknown Traffic Flood Control

When unknown unicast flood rate-limiting (UUFRL) is enabled, per-VLAN learning must be enabled on all the Layer 3 routed ports, otherwise, any unicast flooded packet coming into a routed port will also be rate-limited by UUFRL.

## Information About Unknown Traffic Flood Control

By default, unknown unicast traffic is flooded to all Layer 2 ports in a VLAN. You can use the unknown unicast flood blocking (UUFB) and unknown unicast flood rate-limiting (UUFRL) features to prevent or limit this traffic.

The UUFB features block unknown unicast traffic flooding at a specific port, only permitting egress traffic with MAC addresses that are known to exist on the port. The UUFB features are supported on all ports that are configured with the **switchport** command, including private VLAN (PVLAN) ports.

The UUFRL feature globally rate limits unknown unicast traffic on all VLANs.

## Default Settings for Unknown Traffic Flood Control

None.

## How to Configure Unknown Traffic Flood Control

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- [How to Configure UUFRL, page 83-2](#)

### How to Configure UUFB

To configure UUFB, perform this task:

	Command	Purpose
Step 1	Router# <b>configure terminal</b>	Enters global configuration mode.
Step 2	Router(config)# <b>interface</b> {{type slot/port}   {port-channel number}}	Selects the interface to configure.
Step 3	Router(config-if)# <b>switchport</b>	Configures the port for Layer 2 switching.
Step 4	Router(config-if)# <b>switchport block</b> {unicast}	Enables unknown unicast flood blocking on the port.

### How to Configure UUFRL

To configure UUFRL, perform this task:

	Command	Purpose
Step 1	Router# <b>configure terminal</b>	Enters global configuration mode.
Step 2	Router(config)# <b>platform rate-limit layer2 unknown rate-in-pps</b> [burst-size]	Enables UUFRL and sets the maximum packet rate. (Optional) Specify a burst size limit.
Step 3	Router(config)# <b>exit</b>	Exits configuration mode.

When you configure UUFRL, note the following information:

- For the *rate-in-pps* value:
  - The range is 10 through 1,000,000 (entered as 1000000).
  - There is no default value.
  - Values lower than 1,000 (entered as 1000) should offer sufficient protection.
- For the *burst-size* value:
  - The range is 1 through 255.
  - The default is 10.
  - The default value should provide sufficient protection.

## Configuration Examples for Unknown Traffic Flood Control

This example shows how to configure UUFB on Gigabit Ethernet port 5/12 and how to verify the configuration:

```
Router# configure terminal
Router(config)# interface gigabitethernet 5/12
Router(config-if)# switchport
Router(config-if)# switchport block unicast
Router(config-if)# do show interface gigabitethernet 5/12 switchport | include Unknown
Unknown unicast blocked: enabled
```

This example shows how to configure UUFRL with a rate limit of 1000 pps with a burst of 20 packets:

```
Router# configure terminal
Router(config)# platform rate-limit layer2 unknown 1000 20
Router(config)# exit
```



**Tip**

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[http://www.cisco.com/en/US/products/hw/switches/ps708/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/hw/switches/ps708/tsd_products_support_series_home.html)

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