



# Flexible NetFlow Export over IPv4

---

The Flexible NetFlow Export over IPv4 feature allows IPv4 and IPv6 flow records to be exported to the collector over IPv4.

- [Finding Feature Information, page 1](#)
- [Information About Flexible NetFlow Export over IPv4 , page 1](#)
- [How to Configure Flexible NetFlow Export over IPv4, page 2](#)
- [Configuration Examples for Flexible NetFlow Export over IPv4, page 4](#)
- [Additional References, page 5](#)
- [Feature Information for Flexible NetFlow Export over IPv4 , page 6](#)

## Finding Feature Information

Your software release may not support all the features documented in this module. For the latest caveats and feature information, see [Bug Search Tool](#) and the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the feature information table at the end of this module.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to [www.cisco.com/go/cfn](http://www.cisco.com/go/cfn). An account on Cisco.com is not required.

## Information About Flexible NetFlow Export over IPv4

### Flexible NetFlow Export over IPv4 Overview

Flow exporters are created as separate components in a router's configuration. Exporters are assigned to flow monitors to export the data from the flow monitor cache to a remote system such as a NetFlow collector. Flow monitors can support more than one exporter. Each exporter can be customized to meet the requirements of the flow monitor or monitors in which it is used and the NetFlow collector systems to which it is exporting data.

The Flexible Netflow Export over IPv4 feature allows IPv4 and IPv6 flow records to be exported to the collector over IPv4.

# How to Configure Flexible NetFlow Export over IPv4

## Configuring a Flow Exporter for the Flow Monitor

Perform this optional task to configure a flow exporter for the flow monitor in order to export the data that is collected by Flexible NetFlow to a remote system for further analysis and storage.

Flow exporters are used to send the data that you collect with Flexible NetFlow to a remote system such as a NetFlow Collection Engine. Exporters use UDP as the transport protocol and use the Version 9 export format.



### Note

Each flow exporter supports only one destination. If you want to export the data to multiple destinations, you must configure multiple flow exporters and assign them to the flow monitor.

You can export to a destination using either an IPv4 or IPv6 address.

### SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **flow exporter** *exporter-name*
4. **description** *description*
5. **destination** {*hostname* | *ip-address*} [**vrf** *vrf-name*]
6. **export-protocol** {*netflow-v5* | *netflow-v9* | *ipfix*}
7. **transport** **udp** *udp-port*
8. **exit**
9. **flow monitor** *flow-monitor-name*
10. **exporter** *exporter-name*
11. **end**
12. **show flow exporter** *exporter-name*
13. **show running-config flow exporter** *exporter-name*

### DETAILED STEPS

	Command or Action	Purpose
Step 1	<b>enable</b>  <b>Example:</b> Device> enable	Enables privileged EXEC mode. <ul style="list-style-type: none"> <li>• Enter your password if prompted.</li> </ul>

	Command or Action	Purpose
<b>Step 2</b>	<b>configure terminal</b>  <b>Example:</b> Device# configure terminal	Enters global configuration mode.
<b>Step 3</b>	<b>flow exporter <i>exporter-name</i></b>  <b>Example:</b> Device(config)# flow exporter EXPORTER-1	Creates a flow exporter and enters Flexible NetFlow flow exporter configuration mode.  • This command also allows you to modify an existing flow exporter.
<b>Step 4</b>	<b>description <i>description</i></b>  <b>Example:</b> Device(config-flow-exporter)# description Exports to datacenter	(Optional) Creates a description for the flow exporter.
<b>Step 5</b>	<b>destination {<i>hostname</i>   <i>ip-address</i>} [<i>vrf vrf-name</i>]</b>  <b>Example:</b> Device(config-flow-exporter)# destination 172.16.10.2	Specifies the hostname or IP address of the system to which the exporter sends data.  <b>Note</b> You can export to a destination using either an IPv4 or IPv6 address.
<b>Step 6</b>	<b>export-protocol {<i>netflow-v5</i>   <i>netflow-v9</i>   <i>ipfix</i>}</b>  <b>Example:</b> Device(config-flow-exporter)# export-protocol netflow-v9	Specifies the version of the NetFlow export protocol used by the exporter.  • Default: <b>netflow-v9</b> .
<b>Step 7</b>	<b>transport udp <i>udp-port</i></b>  <b>Example:</b> Device(config-flow-exporter)# transport udp 65	Configures UDP as the transport protocol and specifies the UDP port on which the destination system is listening for exported Flexible NetFlow traffic.
<b>Step 8</b>	<b>exit</b>  <b>Example:</b> Device(config-flow-exporter)# exit	Exits Flexible NetFlow flow exporter configuration mode and returns to global configuration mode.
<b>Step 9</b>	<b>flow monitor <i>flow-monitor-name</i></b>  <b>Example:</b> Device(config)# flow monitor FLOW-MONITOR-1	Enters Flexible NetFlow flow monitor configuration mode for the flow monitor that you created previously.

	Command or Action	Purpose
<b>Step 10</b>	<b>exporter</b> <i>exporter-name</i>  <b>Example:</b> Device(config-flow-monitor)# exporter EXPORTER-1	Specifies the name of an exporter that you created previously.
<b>Step 11</b>	<b>end</b>  <b>Example:</b> Device(config-flow-monitor)# end	Exits Flexible NetFlow flow monitor configuration mode and returns to privileged EXEC mode.
<b>Step 12</b>	<b>show flow exporter</b> <i>exporter-name</i>  <b>Example:</b> Device# show flow exporter FLOW_EXPORTER-1	(Optional) Displays the current status of the specified flow exporter.
<b>Step 13</b>	<b>show running-config flow exporter</b> <i>exporter-name</i>  <b>Example:</b> Device<# show running-config flow exporter FLOW_EXPORTER-1	(Optional) Displays the configuration of the specified flow exporter.

## Configuration Examples for Flexible NetFlow Export over IPv4

### Example: Configuring Multiple Export Destinations

The following example shows how to configure multiple export destinations for Flexible NetFlow for IPv4 or IPv6 traffic.

This sample starts in global configuration mode:

```

!
flow exporter EXPORTER-1
 destination 172.16.10.2
 transport udp 90
 exit
!
flow exporter EXPORTER-2
 destination 172.16.10.3
 transport udp 90
 exit
!
flow record v4_r1
 match ipv4 tos
 match ipv4 protocol
 match ipv4 source address
 match ipv4 destination address

```

```

match transport source-port
match transport destination-port
collect counter bytes long
collect counter packets long
!
flow record v6_r1
match ipv6 traffic-class
match ipv6 protocol
match ipv6 source address
match ipv6 destination address
match transport source-port
match transport destination-port
collect counter bytes long
collect counter packets long
!

flow monitor FLOW-MONITOR-1
 record v4_r1
 exporter EXPORTER-2
 exporter EXPORTER-1
!
!
flow monitor FLOW-MONITOR-2
 record v6_r1
 exporter EXPORTER-2
 exporter EXPORTER-1
!
ip cef
!
interface GigabitEthernet1/0/0
 ip address 172.16.6.2 255.255.255.0
 ipv6 address 2001:DB8:2:ABCD::2/48
 ip flow monitor FLOW-MONITOR-1 input
 ipv6 flow monitor FLOW-MONITOR-2 input
!

```

The following display output shows that the flow monitor is exporting data to the two exporters:

```

Device# show flow monitor FLOW-MONITOR-1
Flow Monitor FLOW-MONITOR-1:
  Description:      User defined
  Flow Record:     v4_r1
  Flow Exporter:   EXPORTER-1
                  EXPORTER-2

Cache:
  Type:            normal (Platform cache)
  Status:          allocated
  Size:            4096 entries / 311316 bytes
  Inactive Timeout: 15 secs
  Active Timeout:  1800 secs
  Update Timeout:  1800 secs

```

## Additional References

### Related Documents

Related Topic	Document Title
Cisco IOS commands	<a href="#">Cisco IOS Master Command List, All Releases</a>
Flexible NetFlow conceptual information and configuration tasks	<i>Flexible NetFlow Configuration Guide</i>
Flexible NetFlow commands	<i>Cisco IOS Flexible NetFlow Command Reference</i>

**Standards/RFCs**

Standard	Title
No new or modified standards/RFCs are supported by this feature.	—

**MIBs**

MIB	MIBs Link
None	To locate and download MIBs for selected platforms, Cisco software releases, and feature sets, use Cisco MIB Locator found at the following URL:  <a href="http://www.cisco.com/go/mibs">http://www.cisco.com/go/mibs</a>

**Technical Assistance**

Description	Link
The Cisco Support and Documentation website provides online resources to download documentation, software, and tools. Use these resources to install and configure the software and to troubleshoot and resolve technical issues with Cisco products and technologies. Access to most tools on the Cisco Support and Documentation website requires a Cisco.com user ID and password.	<a href="http://www.cisco.com/cisco/web/support/index.html">http://www.cisco.com/cisco/web/support/index.html</a>

## Feature Information for Flexible NetFlow Export over IPv4

The following table provides release information about the feature or features described in this module. This table lists only the software release that introduced support for a given feature in a given software release train. Unless noted otherwise, subsequent releases of that software release train also support that feature.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to [www.cisco.com/go/cfn](http://www.cisco.com/go/cfn). An account on Cisco.com is not required.

**Table 1: Feature Information for Flexible NetFlow Export over IPv4**

<b>Feature Name</b>	<b>Releases</b>	<b>Feature Information</b>
Flexible NetFlow Export over IPv4	15.0(S) Cisco IOS XE Release 3.1S Cisco IOS XE Release 3.2SE	The Flexible Netflow Export over IPv4 feature allows IPv4 and IPv6 flow records to be exported to the collector over IPv4.  No commands were introduced or modified by this feature.

