

Chapter 34

Flow Collector Interfaces Operational Mode Commands

Table 73 summarizes the command-line interface (CLI) commands you can use to monitor and troubleshoot flow collector interfaces. In the table, the commands are grouped by functionality. In the remainder of this chapter, they are explained alphabetically.

Table 73: Commands for Flow Collector Interfaces

Task or Information to Monitor	CLI Command
Flow collector	clear services flow-collector statistics on page 458
	request services flow-collector destination primary interface on page 458
	request services flow-collector destination secondary interface on page 459
	request services flow-collector test-file-transfer on page 460
	show services flow-collector interface on page 463
	show services flow-collector file interface on page 461
	show services flow-collector input on page 462

clear services flow-collector statistics

Syntax	clear services flow-collector statistics interface < <i>interface-name</i> all>
Description	(On M40e or M160 routing platforms only) Clear the flow collector statistics for one or all interfaces. If the specified interface is not configured as a flow collector, the error message < <i>interface-name</i> > is not configured for flow-collection is displayed.
Options	<i>interface-name</i> —(Optional) Specify the name of the collection interface. all—(Optional) Specify all configured collection interfaces.
Required Privilege Level	network
Output Fields	Flow collector interface—Physical interface. Interface state—Displays the interface state.
Sample Output	<pre> user@host> clear services flow-collector statistics interface cp-5/0/0 Flow collector interface: cp-5/0/0 Interface state: Collecting flows Statistics cleared successfully </pre>

request services flow-collector destination primary interface

Syntax	request services flow-collector destination primary interface < <i>interface-name</i> >
Description	(On M40e or M160 routing platforms only) Use to specifically switch to the primary server. If the current server is the primary server (files are already being transferred to the primary server), Destination change not needed is displayed in the command output.
Options	<i>interface-name</i> —(Optional) Specify the interface name of the primary destination.
Required Privilege Level	maintenance
Output Fields	Flow collector interface—Physical interface. Interface state—Displays the interface state.
Sample Output	<pre> user@host> request services flow-collector destination primary interface cp-6/0/0 Flow collector interface: cp-6/0/0 Interface state: Collecting flows Destination change successful </pre>

request services flow-collector destination secondary interface

Syntax request services flow-collector destination secondary interface *<interface-name>*

Description (On M40e or M160 routing platforms only) Use to specifically switch to the secondary server. If the current server is the secondary server (files are already being transferred to the secondary server), Destination change not needed is displayed in the command output. If no secondary server is configured, the message Destination not configured is displayed.

Options *interface-name*—(Optional) Specify the interface name of the secondary destination.

Required Privilege Level maintenance

Output Fields Flow collector interface—Physical interface.

Interface state—State of the interface.

Sample Output

```
user@host> request services flow-collector destination secondary interface cp-6/0/0
Flow collector interface: cp-6/0/0
Interface state: Collecting flows
Destination change successful
```

request services flow-collector test-file-transfer

Syntax	request services flow-collector test-file-transfer <i>filename</i> interface (all <i>interface-name</i>) (channel-zero channel-one) (primary secondary)
Description	(On M40e or M160 routing platforms only) Transfer a test file to the primary or secondary FTP server configured as a flow collector, to make sure that the output side of the collection interface is operating properly.
Options	<p><i>filename</i>—Filename of the test file to transfer.</p> <p>interface all—Transfer a test file of flows from all configured flow collection interfaces.</p> <p>interface <i>interface-name</i>—Transfer a test file of flows from the configured flow collection interface specified.</p> <p>channel-zero—Transfer a file from export channel 0 (unit 0) of the PIC.</p> <p>channel-one—Transfer a file from export channel 1 (unit 1) of the PIC.</p> <p>primary—Transfer a file to the primary server configured as a flow collector.</p> <p>secondary—Transfer a file to the secondary server configured as a flow collector.</p>
Required Privilege Level	network
Output Fields	<p>Flow collector interface—Physical interface.</p> <p>Interface state—State of the interface.</p> <p>Response—Displays file transfer confirmation.</p>
Sample Output	<pre>user@router> request services flow-collector test-file-transfer test_file interface cp-7/1/0 channel-one primary Flow collector interface: cp-7/1/0 Interface state: Collecting flows Response: Test file transfer successfully scheduled</pre>

show services flow-collector file interface

Syntax	show services flow-collector file <interface all <i>interface-name</i> > <detail extensive>
Description	(On M40e or M160 routing platforms only) Display the files present on the collector service. No entries are displayed for files that have been successfully transferred.
Options	<p>all—(Optional) Show state for all configured flow collection interfaces.</p> <p><i>interface-name</i>—(Optional) Display files on a particular PIC and information for a flow collection interface.</p> <p>detail—(Optional) Display detailed statistics information for the flow collector application.</p> <p>extensive—(Optional) Display extensive statistics information for the flow collector application.</p>
Required Privilege Level	view
Output Fields	<p>File name—Name of the file created on the flow collection interface.</p> <p>Flows—Total number of collector flows for which records are present in the file.</p> <p>Status—File statistics:</p> <p>Block count—(Extensive) Total number of data blocks in the file.</p> <p>Compressed blocks—(Extensive) Data blocks in the file that have been compressed. The file is exported only when the compressed block count and block count become the same.</p> <p>State—Processing state of the file. Values are as follows:</p> <p>Active—The flow collection interface is writing to the file.</p> <p>Export 1—File export is in progress to the primary server.</p> <p>Export 2—File export is in progress to the secondary server.</p> <p>Wait—File is pending export.</p> <p>Transfer attempts—Number of attempts made to transfer the file. If the file is successfully transferred in the first attempt, this field is 0.</p> <p>Throughput—Throughput statistics:</p> <p>Compressed bytes—Total file size after compression.</p> <p>Flow records—Number of flow records in the file.</p> <p>Uncompressed bytes—Total file size before compression.</p>

Sample Output: show services flow-collector file interface

```
user@host> show services flow-collector file interface cp-3/2/0
File name                               Flows State
asad200310161816290.gz                 4 Active
asad200310161816341.gz                 5 Active
asad2003101618242514.gz               8821 Active
asad200310161821268.gz                100130 Export 1
```

Sample Output: show services flow-collector file interface detail

```
user@host> show services flow-collector file interface cp-3/2/0 detail
Filename: cFlowd-py69Ni69-0-20031112_014301-so_3_0_0_0.bcp.bi.gz
Throughput:
Flow records: 187067, Uncompressed bytes: 21121960, Compressed bytes: 2965643
Status:
State: Active, Transfer attempts: 0
```

Sample Output: show services flow-collector file interface extensive

```
user@host> show services flow-collector file interface cp-3/2/0 extensive
Filename: cFlowd-py69Ni69-0-20031112_014301-so_3_0_0_0.bcp.bi.gz
Throughput:
Flow records: 188365, per second: 238, peak per second: 287
Uncompressed bytes: 21267756, per second: 27007, peak per second: 32526
Compressed bytes: 2965643, per second: 0, peak per second: 22999
Status:
Compressed blocks: 156, Block count: 156
State: Active, Transfer attempts: 0
```

show services flow-collector input

Syntax show services flow-collector input interface (all | *interface-name*)

Description (On M40e or M160 routing platforms only) Display the number of packets received by one or more flow collection interfaces from the monitoring interfaces on the same or other Monitoring Services PICs. Track traffic from a particular monitoring interface to a flow collection interface.

Options all—Display packet information for all flow collection interfaces.

interface-name—Display packet information for the specified flow collection interface.

Required Privilege Level view

Output Fields Interface—Interface name of the monitoring interface.

Packets—Number of packets travelling from the monitoring interface to the flow collection interface.

Bytes—Number of bytes travelling from the monitoring interface to the flow collection interface.

Sample Output

```
user@host> show services flow-collector input interface cp-3/2/0
Interface      Packets  Bytes
mo-3/0/0.0    21706   32328568
mo-3/1/0.0    21706   32329096
```

show services flow-collector interface

Syntax	show services flow-collector interface (all <i>interface-name</i>) <terse detail extensive>
Description	(On M40e or M160 routing platforms only) Display overall statistics for the flow collector application. The output is the value collated from all PICs running the flow collector software. Use the interface option to display information about only the specified PIC interface.
Options	<p>interface all—Display all statistics for the flow collection applications on all interfaces.</p> <p>interface <i>interface-name</i>—Display information for a specified flow collection application on the specified interface.</p> <p>terse—(Optional) Display summary statistics information for the flow collector application.</p> <p>detail—(Optional) Display detailed statistics information for the flow collector application.</p> <p>extensive—(Optional) Display extensive statistics information for the flow collector application.</p>
Required Privilege Level	view
Output Fields	<p>Flow collector interface—Interface name.</p> <p>Interface state—Collecting flow state for the interface.</p> <p>Packets—(Standard) Total number of packets received.</p> <p>Flows Uncompressed Bytes—(Standard) Total uncompressed data size for all files created on this PIC.</p> <p>Compressed Bytes—(Standard) Total compressed data size for all files created on this PIC.</p> <p>FTP bytes—(Standard) Total number of bytes transferred to the FTP server, including those dropped during transfer.</p> <p>FTP files—(Standard) Total number of FTP transfers attempted by the server.</p> <p>Memory—(Detail and extensive) Bytes used on the PIC and bytes free.</p> <p>Input—(Detail and extensive) Incoming collector flow packet statistics:</p> <p style="padding-left: 2em;">Packets—Number of packets received on the unit. In this instance, the unit number is unit 2.</p> <p style="padding-left: 2em;">Bytes—Number of bytes received on the unit. In this instance, the unit number is unit 2.</p> <p style="padding-left: 2em;">Flow records processed—(Detail and Extensive) Number of records in the collector flow packets that were processed by the flow-collector interface.</p>

Allocation—(Extensive) Data block statistics:

Blocks allocated—Total number of data blocks (containing flow records) allocated to the files created on this PIC.

Blocks freed— Total number of data blocks freed.

Blocks unavailable—Total number of data block requests denied, typically due to a memory shortage.

Files—(Detail and extensive) File statistics, incremented since the PIC last booted:

Files created—Total number of files created on this PIC.

Files exported—Number of files successfully created and exported.

Files destroyed—(Extensive) Number of files successfully exported and files dropped by the flow collection interface.

Throughput—(Detail and extensive) Throughput statistics:

Uncompressed bytes—Total uncompressed data size for all files created on this PIC.

Compressed bytes—Total compressed data size for all files created on this PIC.

Packet drops—(Extensive) Number of packets dropped due to the following causes:

No memory—Packets dropped because of insufficient memory resources.

Not IP—Packets dropped because they are not IP packets.

Not IPv4—Packets dropped because they are not IP version 4 packets.

Too small—Packets dropped because each packet was smaller than the size reported in its header.

Fragments—Packets dropped due to fragmentation. Fragments are not reassembled.

ICMP—Packets dropped because they are not ICMP packets.

TCP—Packets dropped because they are not TCP packets.

Unknown—Packets dropped due to undetermined causes.

Not JUNOS flow—Packets dropped because they are not interpreted by the JUNOS software. The JUNOS software interprets only IPv4, UDP collector-flowed version 5 packets.

File transfer—(Detail and extensive) File transfer statistics:

FTP bytes—Total number of bytes transferred to the FTP server, including those dropped during transfer.

FTP files—Total number of FTP transfers attempted by the server.

FTP failure—(Detail and Extensive) Total number of FTP failures encountered by the server.

Flow collector interface—(Detail) Physical interface acting as a flow collector.

Export channel—(Detail and extensive) Export channel 0 is unit 0. Export channel 1 is unit 1. Flow receive channel is unit 2. Server status statistics are the following:

Current server—Current FTP server being used. Value is Primary or Secondary. (The destination that appears first in the service flow-collector destination configuration is the primary destination server.)

Primary server state—State of the server:

OK—Server is operating without problem.

FTP error—Server encountered an FTP protocol error while sending files.

Network error—Flow-collector interface has errors when contacting the primary FTP server.

Unknown—First file transfer has not been sent to the primary server.

Secondary server state—State of the server:

OK—Server is operating without error.

FTP error—Server encountered an FTP protocol error while sending files.

Network error—Flow-collector interface has errors when contacting the secondary FTP server.

Unknown—First file transfer has not been sent to the secondary server.

Not configured—Secondary server is not configured.

Sample Output: show services flow-collector interface (standard)

```
user@host> show services flow-collector interface cp-3/2/0
Packets  Bytes  Flows Uncompressed  Compressed  FTP bytes  FTP files
          Bytes   Bytes
20415 30247764  607847  54877522  11069376  9352535   6
```

Sample Output: show services flow-collector interface all (standard)

```

user@host> show services flow-collector interface all
Flow collector interface: cp-5/0/0
Interface state: Collecting flows
  Packets  Bytes  Flows Uncompressed  Compressed  FTP bytes  FTP files
           Bytes  Bytes
    0      0      0      0      0      0      0
Flow collector interface: cp-6/0/0
Interface state: Collecting flows
  Packets  Bytes  Flows Uncompressed  Compressed  FTP bytes  FTP files
           Bytes  Bytes
    0      0      0      0      0      0      0
Flow collector interface: cp-7/0/0
Interface state: Collecting flows
  Packets  Bytes  Flows Uncompressed  Compressed  FTP bytes  FTP files
           Bytes  Bytes
    0      0      0      0      0      0      0
    
```

Sample Output: show services flow-collector interface all detail

```

user@host> show services flow-collector interface all detail
Flow collector interface: cp-5/0/0
Interface state: Collecting flows
Memory:
  Used: 19790588, Free: 479331280
Input:
  Packets: 6736, per second: 0, peak per second: 0
  Bytes: 9757936, per second: 11173, peak per second: 14311
  Flow records processed: 195993, per second: 222, peak per second: 287
Files:
  Files created: 1, per second: 0, peak per second: 0
  Files exported: 0, per second: 0, peak per second: 0
Throughput:
  Uncompressed bytes: 21855798, per second: 104074, peak per second: 156173
  Compressed bytes: 3194148, per second: 15226, peak per second: 23005
File Transfer:
  FTP bytes: 0, per second: 0, peak per second: 0
  FTP files: 0, per second: 0, peak per second: 0
  FTP failure: 0
Flow collector interface: cp-6/0/0
Interface state: Collecting flows
Memory:
  Used: 12289396, Free: 486832472
Input:
  Packets: 0, per second: 0, peak per second: 0
  Bytes: 0, per second: 0, peak per second: 0
  Flow records processed: 0, per second: 0, peak per second: 0
Files:
  Files created: 0, per second: 0, peak per second: 0
  Files exported: 0, per second: 0, peak per second: 0
Throughput:
  Uncompressed bytes: 0, per second: 0, peak per second: 0
  Compressed bytes: 0, per second: 0, peak per second: 0
File Transfer:
  FTP bytes: 0, per second: 0, peak per second: 0
  FTP files: 0, per second: 0, peak per second: 0
  FTP failure: 0
Export channel: 0
  Current server: Secondary
  Primary server state: OK, Secondary server state: unknown
Export channel: 1
  Current server: Secondary
  Primary server state: OK, Secondary server state: unknown
    
```

**Sample Output: show
services flow-collector
interface extensive**

```

user@host> show services flow-collector interface cp-5/2/0 extensive
Flow collector interface: cp-5/2/0
Interface state: Collecting flows
Memory:
  Used: 458311860, Free: 40810008
Input:
  Packets: 922629, per second: 2069, peak per second: 3266
  Bytes: 1376559252, per second: 3096940, peak per second: 4880051
  Flow records processed: 25764957, per second: 42564, peak per second: 98124
Allocation:
  Blocks allocated: 20862, per second: 31, peak per second: 72
  Blocks freed: 17161, per second: 40, peak per second: 202
  Blocks unavailable: 58786, per second: 652, peak per second: 1120
Files:
  Files created: 52, per second: 0, peak per second: 0
  Files exported: 42, per second: 0, peak per second: 0
  Files destroyed: 42, per second: 0, peak per second: 0
Throughput:
  Uncompressed bytes: 2592070401, per second: 7297307,
  peak per second: 8630023
  Compressed bytes: 659600068, per second: 1858458, peak per second: 2198471
Packet drops:
  No memory: 58786, Not IP: 0
  Not IPv4: 0, Too small: 0
  Fragments: 0, ICMP: 0
  TCP: 0, Unknown: 0
  Not JUNOS flow: 0
File Transfer:
  FTP bytes: 585981447, per second: 1313320, peak per second: 4857798
  FTP files: 48, per second: 0, peak per second: 0
  FTP failure: 8
Export channel: 0
  Current server: Primary
  Primary server state: FTP error, Secondary server state: Not configured Export channel: 1
  Current server: Primary
  Primary server state: OK, Secondary server state: Not configured

```

