# Configuring Top-N Reports

This chapter contains the following sections:

# Top-N Reports Overview

Top-N reports allows you to collect and analyze data for each interface on a switch. The statistics for each port are sorted by one of the statistic types that are listed in the following table.

**Table 1: Valid Top-N Statistic Types**

| Statistic Type | Definition |
| --- | --- |
| broadcast | Number of input/output broadcast packets |
| bytes | Number of input/output bytes |
| multicast | Number of input/output multicast packets |
| drops | Number of drops |
| packets | Number of input/output packets |
| utilization | Utilization |

# Top-N Reports Operation

When you enter the **collect top** command, processing begins and the system prompt reappears immediately. When processing completes, the reports are not displayed immediately on the screen; the reports are saved for later viewing. The Top-N reports notify you when the reports are complete by sending a syslog message to the screen.

To view the completed reports, enter the **show top counters interface report** command. Only completed reports are displayed. For reports that are not completed, there is a short description of the process information.

To terminate a Top-N reports process, enter the **clear top counters interface report** command. Pressing Ctrl-C does not terminate Top-N reports processes. The completed reports remain available for viewing until you remove them by entering the **clear top counters interface report**{ **all** *report_num* } command.

# Collecting Interface Statistics for Top-N Reports

When enabling Top-N reports creation, note the following information:

- You can specify the number of busiest ports for which to create reports (the default is 20).

- You can specify the statistic type by which ports are determined to be the busiest (the default is utilization). The supported values for statistic_type are broadcast, bytes, multicast, drop, packets, and utilization.

- You can specify the interval over which statistics are collected (range: 0 through 999; the default is 30 seconds). For utilization report the interval range is 10-999.

- Except for a utilization report (configured with the sort-by utilization keywords), you can specify an interval of zero to create a report that displays the current counter values instead of a report that displays the difference between the start-of-interval counter values and the end-of-interval counter values.

- You can collect up to a max of five reports

**Procedure**

| | Command or Action | Purpose |
|---|---|---|
| Step 1 | switch(config)# **collect top** [*num* ] **counters interface**{*all* \| *vEthernet*}[**sort-by**{ **broadcast** \| **bytes** \| **drops** \| **multicast** \| **packets** \| **utilization** }] [**interval** *seconds*] | Collects interface statistics for a Top-N report. |
| | | **Note** You can get the interface statistics for a Top-N report sorted by broadcast, bytes, drops, multicast, packets, and utilization for vEthernet interfaces. In this release, the Cisco Nexus 1000V InterCloud supports only vEthernet interfaces. |

This example shows how to collect interface statistics for Top-N reports for an interval of 76 seconds for the four ports with the highest utilization:

```
switch# collect top 4 counters interface all sort-by utilization interval 76
```

# Displaying Top-N Reports

You can use this procedure to display Top-N reports. Top-N reports statistics are not displayed in the following situations:

- If a port is not present during the first poll.
- If a port is not present during the second poll.

**Procedure**

|  | Command or Action | Purpose |
|---|---|---|
| Step 1 | switch(config)# **show top counters interface report** | Displays Top-N reports.<br><br>**Note**  To display information about all the reports, do not enter the report number. |
| Step 2 | switch(config)# **show top counters interface report** [*report_num*] | Displays Top-N reports for a specific report number. |

This example shows how to display information about all the Top-N reports:

```
switch# show top counters interface report
```

This example shows how to display information about a specific Top-N report:

```
switch# show top counters interface report 1
```

# Clearing Top-N Reports

You can use this procedure to clear Top-N reports.

**Procedure**

|  | Command or Action | Purpose |
|---|---|---|
| Step 1 | switch(config)# **clear top counters interface report** {**all**|*rep_num* } | Clears all the Top-N reports. You can specify a particular report or you can use **all** to clear all reports. You can also use this command to cancel a report which is being collected. |

This example shows how to remove Top-N reports:

```
switch# clear top counters interface report 4
```