

# Flow Statistics on the CS 800

Document ID: 20246

---

- Introduction**
- Prerequisites**
  - Requirements
  - Components Used
  - Conventions
- Command Information**
- Related Information**

---

## Introduction

This document provides a detailed description of the **flow statistics all** command. The **flow statistics all** command was introduced in 4.01/27s to provide a more detailed table of statistics for the CS 800s individual Switch Fabric Processors (SFP).

## Prerequisites

### Requirements

There are no specific requirements for this document.

### Components Used

The information in this document is based on the software and hardware versions listed here:

- All versions of the CS 800

The information presented in this document was created from devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command before you use it.

### Conventions

For more information on document conventions, refer to the Cisco Technical Tips Conventions.

## Command Information

```
SCW-CS800-DM(debug)# flow statistics all
Flow Manager Statistics - SFM Slot 6, Subslot 1:
Cur   High   Avg
UDP Flows per second           1     1     0
TCP Flows per second           57    87    52
Total Flows per second         58    87    52
Hits per second                 44    63    44
Number of Allocated Flows (non-purged)           5604
Number of Free Flows                               125468
Number of Flow Drops                               0
Max Number of Flow Control Blocks                 289207
Number of Flows with SynAckPending                56
Accumulated Port Flow Statistics:
```

```

Current Number of Active Flows          5566
Total Flow Accounting Reports received  96791
Total Out of Sequence Packet Received   0
Total Spoof Queue Mis-Hits             0

```

Port FCBs	CE	Active	Total	Acct	TCP	UDP	Rst
#13/1 27894	c001f00	2541	50781	48240	2534	7	0
# ½ 31621	401f00	0	0	0	0	0	0
#11/4 26957	8c01f00	3022	51516	48551	3022	0	0
#12/3 31600	a801f00	0	0	0	0	0	0

The output fields are explained here:

- **Hits per second** the cumulative number of hits for all rules per second. Layer three and Layer four is one **HIT** per session, and Layer five is one per **GET**.
- **Number of Allocated Flows (non-purged)** the allocated flows for the flowmgr for this SFP. At boot time, the flowmgr carves the number of free flows. If it runs out, it can allocate up to the maximum number of Flow Control Blocks (FCB), and does so in chunks of 200. The initial free and maximum numbers are based on the amount of memory available, so this can vary from release to release. The allocated flows must roughly equal the cumulative number of active flows for each port on the SFP.
- **Number of Free Flows** the number of FCBs that the flowmgr carves out of the memory at initialization time. This is taken from the memory shown in the **show system-resources memory** command output.
- **Number of Flow Drops** this is a meaningless field. It is never incremented. The maximum number of FCBs equals the maximum number of FCBs the flowmgr can take. If it runs out of free flows, it allocates up to the maximum number of FCBs in blocks of 200 FCBs at a time.
- **Number of Flows with SynAckPending** the number of flows that are awaiting the acknowledge (ACK) in response to a synchronize acknowledge (SYN/ACK). Also known as the third part of the Transmission Control Protocol (TCP) three-way handshake.
- **Current Number of Active Flows** the number of active flows per SFP for a CS 800 and total for a CS 150.
- **Total Flow Accounting Reports received** the number of accounting reports sent up from the fastpath (E/XPIF) to the SFP. An accounting report is generated for all flows that were torn down either through session close (FIN/RST) or garbage collection.
- **Total Out of Sequence Packet Received** when the flowmgr hands a packet to the Web Conversation and Control (WCC) module, and it returns WCC\_DISCARD, it means that the flowmgr had no way to handle this packet. One of the most common causes are out of order TCP packets. In most cases, this counter is insignificant.
- **Total Spoof Queue Mis-Hit** when a flow is about to be reallocated, it is removed from the Spoof list (or internal cache). This counter indicates that the Cisco Content Service Switch could not find the flow even though it must be in the spoof queue. A low number is not significant. The table here provides more information on these counters:

Counter	Function
Port	This is the ingress port for the active flows.
CE	Connection endpoint. This is how the port is represented to the Cisco Content Service Switch internally, in the code.

Active	The total number of active TCP and User Datagram Protocol (UDP) flows.
Total	A cumulative total of all flows since the last reboot.
Acct	A cumulative total of all accounting reports since the last reboot.
TCP	<del>The current number of active TCP flows.</del>
UDP	<del>The current number of active UDP flows.</del>
Reset (Rst)	The number of E/XPIF resets. When the SFP cannot communicate to the E/XPIF, it resets to restart the communications. This is a serious error and does require investigation.
FCBs	<p>The total number of available FCBs for this port's (E/XPIF) bank from the fastpath's point of view. These FCBs are available to the entire E/XPIF bank, typically in groups of four ports. Ports within the same bank share this pool and reports the same number within a few FCBs of each other.</p> <p>These FCBs are in the Synchronous Dynamic RAM (SDRAM) which is local to the ASIC. This is where the fast switching takes place. When the fastpath FCBs runs down to zero, then the flows are overflow mapped and forwarded up on the processor. If up on the processor the number of free flows goes to zero, you have to carve more FCBs in chunks of 200, up to the maximum number of FCBs. Once this memory has been carved out, it is permanently reserved and is not freed until a reboot. If the Cisco Content Service Switch reaches the maximum number of FCBs, there can be approximately 4MB of RAM left, per SFP, on a CS-800. This varies on a CS-50/100/150. If the <b>show system-resources</b> command output indicates low free memory, this may be the cause.</p>

---

## Related Information

- [Technical Support – Cisco Systems](#)
- 

[Contacts & Feedback](#) | [Help](#) | [Site Map](#)

© 2009 – 2010 Cisco Systems, Inc. All rights reserved. [Terms & Conditions](#) | [Privacy Statement](#) | [Cookie Policy](#) | [Trademarks of Cisco Systems, Inc.](#)

---

Updated: Jan 30, 2006

Document ID: 20246

---