

Troubleshooting Packet Drops

Information About Troubleshooting Packet Drops

This chapter provides information on how to troubleshoot issues related to packet drops on Cisco Catalyst 8000V instances. From Cisco IOS XE 17.8.1, you can run the **show drops** command to troubleshoot the root cause of packet drops.

With the **show drop** command, you can identify:

- The reason for packet drop.
- The dropped interface with Rx or Tx direction.
- The root cause of the drop based on the feature or the protocol. You can filter the packet drop based on the interface, protocol, or feature.

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Viewing Packet Drop Information

Perform the following steps to view and filter the packet drop information for your instance based on the interface, protocol, or feature.

SUMMARY STEPS

1. **enable**
2. **show drops**
3. Show drops {bqs| crypto| firewall| interface| ip-all| nat| punt| qfp| qos}

DETAILED STEPS

Procedure

	Command or Action	Purpose
Step 1	**enable** **Example:**	Enables the privileged EXEC mode. Enter your password, if prompted.

	Command or Action	Purpose
	`Router> enable`	
Step 2	**show drops** **Example:** `Router# show drops`	Displays the drop statistics for the instance.
Step 3	Show drops {bqs| crypto| firewall| interface| ip-all| nat| punt| qfp| qos} **Example:** `Router# show drops qfp`	Displays the drop statistics and the summary for the interface or the protocol that you choose.

Troubleshooting Packet Drops: Sample Output

The following is a sample output of the **show drops** command. This sample output displays the packet drops information related to the Quantum Flow Processor (QFP).

```
Router#show drops ?
  bqs        BQS related drops
  crypto     IPSEC related drops
  firewall   Firewall related drops
  interface  Interface drop statistics
  ip-all     IP related drops
  nat        NAT related drops
  punt       Punt path related drops
  qfp        QFP drop statistics
  qos        QoS related drops
  |          Output modifiers
  <cr>       <cr>

Router# show drops qfp
------------------ show platform hardware qfp active statistics drop detail ------------------

Last clearing of QFP drops statistics : Fri Feb 18 08:02:37 2022
 (6d 23h 54m 29s ago)
-------------------------------------------------------------------------------
   ID  Global Drop Stats                          Packets                 Octets
-------------------------------------------------------------------------------
  319  BFDoffload                                       9                   1350
   61  Icmp                                            84                   3780
   53  IpFragErr                                    32136                48718168
  244  IpLispHashLkupFailed                             3                    213
   56  IpsecInput                                      18                   4654
   23  TailDrop                                  26713208             10952799454
  216  UnconfiguredIpv6Fia                         241788                26596680

------------------ show platform hardware qfp active interface all statistics drop_summary
 ------------------

-----------------------------------------------------------------
Drop Stats Summary:
note: 1) these drop stats are only updated when PAL
         reads the interface stats.
      2) the interface stats include the subinterface

Interface                                      Rx Pkts             Tx Pkts
-------------------------------------------------------------------------
```

GigabitEthernet1	60547	0
GigabitEthernet2	60782	27769658
GigabitEthernet3	60581	0
GigabitEthernet4	60502	1323990
Tunnel14095001	0	1990214
Tunnel14095002	0	3883238
Tunnel14095003	0	3879243
Tunnel14095004	0	2018866
Tunnel14095005	0	3875972
Tunnel14095006	0	3991497
Tunnel14095007	0	4107743
Tunnel14095008	0	3990601