



# Troubleshooting Packet Flow Issues

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## Packet Flow Issues

Packets could be dropped for the following reasons:

- Software-switched packets could be dropped because of Control Plane Policing (CoPP).
- Hardware-switched packets could be dropped by the hardware because of a bandwidth limitation.

## Packets Dropped Because of Rate Limits

Use the **show hardware rate-limit** command to determine if packets are being dropped because of a rate limit.

```
switch(config)# show hardware rate-limit module 1
```

Units for Config: packets per second

Allowed, Dropped & Total: aggregated since last clear counters

Rate Limiter Class	Parameters
access-list-log	Config : 100 Allowed : 0 Dropped : 0 Total : 0

## Packets Dropped Because of CoPP

Use the **show policy-map interface control-plane** command to determine if packets are being dropped because of CoPP.

```
switch# show policy-map interface control-plane
class-map copp-system-p-class-exception (match-any)
  match exception ip option
  match exception ip icmp unreachable
  match exception ttl-failure
  match exception ipv6 option
  match exception ipv6 icmp unreachable
  match exception mtu-failure
```

```
set cos 1
police cir 200 pps , bc 32 packets

module 27 :
  transmitted 0 packets;
  dropped 0 packets;

module 28 :
  transmitted 0 packets;
  dropped 0 packets;
```