



Policer Adjustment in QoS Policy Map

Policers are configured usually at a value range of 64,000–10 G whereas the hardware policer is programmed only to discrete value. The policer rate received is less than that of the configured CIR and PIR values. The policer adjustment feature is added to adjust the CIR and PIR values of hardware policer either to match the configured value or to the next higher value available in hardware.

The policer adjustment feature is supported on the RSP2 module.

To enable policer adjustment, use the **platform qos-adjust-policer enable** at the global configuration mode for a table map. You can view the **show platform hardware pp active feature QoS interface** command to compare the configured values of CIR and PIR values in the qos-policy and the actual programmed values in hardware.

With the policer adjustment feature, the policer rate is compensated with + 0 to + 0.5 to the configured policer rate so that you can achieve the received rate more than or equal to that of the configured rate.

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Restrictions for Policer Adjustment

- Policy adjustment is performed at a global configuration level and it is not supported on each port or EFP.
- Detaching and attaching of policer from ports after applying the policy adjustment feature at a global configuration works for applied ports. For the remaining ports to which detaching and attaching is not performed after enabling the policy adjustment works in a legacy QoS functionality manner.
- Policer enhancement is supported on EFP, TEPF, routed port, and port channel.
- BC or BE values are not adjusted, and only CIR and PIR or EIR are adjusted. Even if BC or BE values are configured, the values that are displayed in the show command do not match exactly with IOS values.
- CIR rates 64,000–3,00,000 can have rates more than 0.5 percent as this rate limits to already available percent and effects higher rates.

How to configure Policer Adjustment

Enabling Policer Adjustment

To enable a policer adjustment at the global configuration mode, enter the following command:

```
Router> enable
Router# configure terminal
Router (config)# platform qos-adjust-policer enable
```

After enabling the policer adjustment, you must detach and attach the policer from port, then only the feature is applied on the port.

Disabling Policer Adjustment

To disable the policer adjustment globally, enter the no form of the following command:

```
{no} platform qos-adjust-policer enable
```

After disabling the policer adjustment, you need to detach and attach the existing policy-map from the port or service and then only the policer adjustment is disabled.

Verifying Policer Adjustment

Use the following **show platform hardware pp active feature QoS interface {intf_name} {service-instance} {EVC_num} input/ouput** command to view the configured and programmed policer values:

```
Router# show platform hardware pp active feature qos interface te 0/0/13 ser 2 in
```

Policy details:

```
Interface: TenGigabitEthernet0/0/13
Policy: TMO-EVC
Service instance number: 2
Direction: input
```

```
-----
Class: EVC, Level: 2
Policer Mode: IETF_2R3C
Policer Index Id: 33
Policer Profile Id: 12
Policer feature          Software value          Asic value
CIR                      5000000 kbps           5062500 kbps
PIR                      7000000 kbps           NA
EIR (PIR - CIR)         2000000 kbps           2024884 kbps
BC                       2500000 bytes          2500000 bytes
BE                       16000000 bytes         16000000 bytes
```