



Configuring CPU CAR

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About CPU Committed Access Rate (CAR)

Flooding the device with messages affects the device CPU performance. You can limit the rate of messages received on the device by configuring a limit for the CPU CAR.

The CPU CAR is enabled by default.



Note CPU CAR is not supported with the shutdown function

How to Configure CPU CAR

Configuring Limit for CPU CAR

To configure limit for the CPU CAR, perform this procedure.

SUMMARY STEPS

1. `enable`
2. `configure terminal`
3. `[no] cpu-car rate`

DETAILED STEPS

	Command or Action	Purpose
Step 1	<code>enable</code> Example:	Enables privileged EXEC mode. Enter your password if prompted.

	Command or Action	Purpose
	Device> enable	
Step 2	configure terminal Example: Device# configure terminal	Enters global configuration mode.
Step 3	[no] cpu-car rate Example: Device(config)#	(Optional) Allows packets within the specified CPU-car rate. Use the no cpu-car command to restore the default value of 400pps.

Monitoring CPU Performance

The commands in the following table can be used to monitor CPU performance

Table 1: CPU Performance

Command	Purpose
show cpu-car	Displays CPU-car performance.
show cpu-statistics [ethernet <i>port-number</i>]	Displays CPU receiving packet port statistics. Use the clear cpu-statistics command to clear the port statistics.
show cpu-classification [interface <i>ethernetport-number</i>]	Displays CPU receiving packet classification statistics. Use the clear cpu-classification [interface <i>ethernetport-number</i>] to clear the packet classification statistics.
show cpu-utilization	Displays CPU utilization.

Example: Configuring CPU CAR function

The following example shows how to configure the CPU CAR speed to 50pps.

```
Device> enable
Device# configure terminal
Device(config)# interface range ethernet 1/1 ethernet 1/2
Device(config-if-ethernet-1/2)# port-car-rate 50
Device(config-if-ethernet-1/2)# exit
Device(config)# show cpu-car
Send packet to cpu rate = 50 pps.
```

Ixia A sends icmp request messages to the DUT: at a rate of 100 pps for 10 seconds, the total number of messages on the dut is 600, indicating that the cpu-car function takes effect.

```

Device> enable
Device# configure terminal
Device(config)# clear cpu-statistics
Device(config)# clear cpu-classification
Device(config)# clear interface
Device(config)# show cpu-statistics ethernet 1/2
Show packets sent to cpu statistic information
port      64Byte 128Byte 256Byte 512Byte 1024Byte 2048Byte
e1/2      600    0        0        0        0        0
Device(config)# show cpu-classification
Type      Count      Percent(%)
Total     600        100
BPDU      0          0
ERRP      0          0
ARP        0          0
MLD        0          0
IGMP       0          0
ICMP       600        100
OSPF       0          0
RIP        0          0
DHCP       0          0
SNMP       0          0
Telnet     0          0
PIM        0          0
BGP        0          0
SSH        0          0
Other      0          0

Device(config)# show statistics interface ethernet 1/2
Port number : e1/2
last 5 minutes input rate 5248 bits/sec, 10 packets/sec
last 5 minutes output rate 433832 bits/sec, 771 packets/sec
64 byte packets:1048
65-127 byte packets:0
128-255 byte packets:0
256-511 byte packets:0
512-1023 byte packets:0
1024-1518 byte packets:0
1048 packets input, 67072 bytes , 0 discarded packets
1048 unicasts, 0 multicasts, 0 broadcasts
0 input errors, 0 FCS error, 0 symbol error, 0 false carrier
0 runts, 0 giants
19 packets output, 1216 bytes, 0 discarded packets
0 unicasts, 9 multicasts, 10 broadcasts
0 output errors, 0 deferred, 0 collisions
0 late collisions
Total entries: 1.

```

