

# Counter(Port counter and L3 RIF counter)

## Restriction:

- Due to chipset restriction. Edgecore SONiC does **NOT support** the L3 RIF counter.
- Support only clear counters for all of ports.( The "sudo" group not support to clear counter)
- Known issue:
  - [SONIC-1775] After reboot or power cycle the device, you need to clear counters by manual. Or some of items(Util and BPS) will always be N/A. **This issue fixed in SONiC.Edgecore-SONiC\_20210505\_054937\_ec202006\_205.**

admin@sonic:~\$ [show interface counters](#)

IFACE	STATE	RX_OK	RX_BPS	RX_UTIL	RX_ERR	RX_DRP	RX_OVR	TX_OK	TX_BPS	TX_UTIL	TX_ERR	TX_DRP	TX_OVR
Ethernet0	D	66149	N/A	N/A	0	0	0	8530552	N/A	N/A	0	0	0

- [SONIC-2976] The drop counter increases abnormally when BGP unnumbered is enabled. (The issue has fixed in 202012.2)

## PortCounter check and clear

### Procedure:

Steps 1. Check counter information.

admin@sonic:~\$ [show interface counters](#)

IFACE	STATE	RX_OK	RX_BPS	RX_UTIL	RX_ERR	RX_DRP	RX_OVR	TX_OK	TX_BPS	TX_UTIL	TX_ERR	TX_DRP	TX_OVR
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Ethernet0	U	225	0.06 B/s	0.00%	0	0	0	223	12.37 B/s	0.00%	0	0	0
Ethernet1	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0	0
Ethernet2	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0	0
Ethernet3	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0	0

Ethernet4 0 0	U	227	22.59 B/s	0.00%	0	2	0	227	12.37 B/s	0.00%	0	
Ethernet5 0	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
Ethernet6 0	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
Ethernet7 0	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
Ethernet8 0 0	U	227	23.09 B/s	0.00%	0	2	0	227	12.37 B/s	0.00%	0	
Ethernet9 0	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
Ethernet10 0	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
Ethernet11 0	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
Ethernet12 0	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
Ethernet13 0	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
Ethernet14 0	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
Ethernet15 0	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
Ethernet16 0 0	U	227	22.43 B/s	0.00%	0	2	0	227	12.46 B/s	0.00%	0	
Ethernet17 0	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
Ethernet18 0	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
Ethernet19 0	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
Ethernet20 0	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
Ethernet21 0	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
Ethernet22 0	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
Ethernet23 0	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
Ethernet24 0	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
Ethernet25	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0

Ethernet26	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
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Ethernet27	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
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Ethernet28	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
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Ethernet29	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
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Ethernet30	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
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Ethernet31	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
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Ethernet32	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
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Ethernet33	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
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Ethernet34	D	0.000 B/s	0.000%	0	0	0	0.000 B/s	0.000%	0	0
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Ethernet35	D	0.000 B/s	0.00%	0	0	0	0.000 B/s	0.00%	0	0
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Ethernet36	D	0.000 B/s	0.000%	0	0	0	0.000 B/s	0.000%	0	0
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Ethanolat37	D	0.0000	B/-	0.000%	0	0	0	0.0000	B/-	0.000%	0	0
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Ethercat32	D	0.0000 B/s	0.000%	0	0	0	0.0000 B/s	0.000%	0	0
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End	122	B	0.0000 B/	0.0000%	0	0	0	0	0.0000 B/	0.0000%	0	0
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Ethernet39	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
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Ethernet40	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
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Ethernet41	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
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Ethernet42	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
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Ethernet43	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
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Ethernet44	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
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Ethernet44	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
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Ethernet45	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
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Ethernet16	D	0.000 B/s	0.00%	0	0	0	0.000 B/s	0.00%	0	0
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Ethernet46	D	0	0.00 B/s	0.00%	0	0	0	0	0.00 B/s	0.00%	0	0
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Ethernet47  D    0  0.00 B/s   0.00%    0    0    0    0  0.00 B/s   0.00%    0    0
0
Ethernet48  U   230 15.19 B/s   0.00%    0   230    0   231 18.53 B/s   0.00%    0
0    0
Ethernet52  D    0  0.00 B/s   0.00%    0    0    0    0  0.00 B/s   0.00%    0    0
0
Ethernet56  D    0  0.00 B/s   0.00%    0    0    0    0  0.00 B/s   0.00%    0    0
0
Ethernet60  D    0  0.00 B/s   0.00%    0    0    0    0  0.00 B/s   0.00%    0    0
0
Ethernet64  U   231 18.53 B/s   0.00%    0   231    0   230 15.19 B/s   0.00%    0
0    0
Ethernet68  D    0  0.00 B/s   0.00%    0    0    0    0  0.00 B/s   0.00%    0    0
0

```

Steps 2. Check the counter for Ethernet0 and Ethernet8

```
admin@sonic:~$ show interfaces counters -i Ethernet0,Ethernet8
```

```

  IFACE STATE RX_OK RX_BPS RX_UTIL RX_ERR RX_DRP RX_OVR TX_OK TX_BPS
TX_UTIL TX_ERR TX_DRP TX_OVR
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Ethernet0  U   231 1.19 B/s   0.00%    0    0    0   228 0.63 B/s   0.00%    0    0
0
Ethernet8  U   232 0.97 B/s   0.00%    0    2    0   232 0.63 B/s   0.00%    0    0
0

```

Steps 3. Check the counter for Ethernet0 to Ethernet4.

```
admin@sonic:~$ show interfaces counters -i Ethernet0-4
```

```

  IFACE STATE RX_OK RX_BPS RX_UTIL RX_ERR RX_DRP RX_OVR TX_OK TX_BPS
TX_UTIL TX_ERR TX_DRP TX_OVR
-----
----
Ethernet0  U   232 0.06 B/s   0.00%    0    0    0   230 15.08 B/s   0.00%    0    0
0
Ethernet1  D    0  0.00 B/s   0.00%    0    0    0    0  0.00 B/s   0.00%    0    0
0
Ethernet2  D    0  0.00 B/s   0.00%    0    0    0    0  0.00 B/s   0.00%    0    0
0
Ethernet3  D    0  0.00 B/s   0.00%    0    0    0    0  0.00 B/s   0.00%    0    0
0
Ethernet4  U   234 27.55 B/s   0.00%    0    2    0   234 15.08 B/s   0.00%    0
0    0

```

Steps 4. Clear counters for all of ports.

```
admin@sonic:~$ sonic-clear counters
Cleared counters
```

## PortCounter with packet size

### Procedure:

Steps 1. Check ingress and egress port counter with packet size.

```
admin@sonic:~$ show interfaces counters detailed Ethernet0
```

```
Packets Received 64 Octets..... 0
Packets Received 65-127 Octets..... 234
Packets Received 128-255 Octets..... 0
Packets Received 256-511 Octets..... 0
Packets Received 512-1023 Octets..... 0
Packets Received 1024-1518 Octets..... 0
Packets Received 1519-2047 Octets..... 0
Packets Received 2048-4095 Octets..... 0
Packets Received 4096-9216 Octets..... 0
Packets Received 9217-16383 Octets..... 0

Total Packets Received Without Errors..... 234
Unicast Packets Received..... 0
Multicast Packets Received..... 234
Broadcast Packets Received..... 0

Jabbers Received..... 0
Fragments Received..... 0
Undersize Received..... 0
Overruns Received..... 0

Packets Transmitted 64 Octets..... 1
Packets Transmitted 65-127 Octets..... 4
Packets Transmitted 128-255 Octets..... 0
Packets Transmitted 256-511 Octets..... 226
Packets Transmitted 512-1023 Octets..... 0
Packets Transmitted 1024-1518 Octets..... 0
```

Packets Transmitted 1519-2047 Octets..... 0  
Packets Transmitted 2048-4095 Octets..... 0  
Packets Transmitted 4096-9216 Octets..... 0  
Packets Transmitted 9217-16383 Octets..... 0  
  
Total Packets Transmitted Successfully..... 231  
Unicast Packets Transmitted..... 0  
Multicast Packets Transmitted..... 231  
Broadcast Packets Transmitted..... 0  
Time Since Counters Last Cleared..... None