



Red Hat Enterprise Linux Release 9.2 Manual Pages on 'ip-stats.8' command

\$ man ip-stats.8

IP-STATS(8) Linux IP-STATS(8)

NAME

ip-stats - manage and show interface statistics

SYNOPSIS

ip stats { COMMAND | help }

ip stats show [dev DEV] [group GROUP [subgroup SUBGROUP [suite
SUITE] ...] ...] ...

ip stats set dev DEV l3_stats { on | off }

DESCRIPTION

ip stats set

is used for toggling whether a certain HW statistics suite is collected on a given netdevice. The following statistics suites are supported:

l3_stats L3 stats reflect traffic that takes place in a HW de?

vice on an object that corresponds to the given software netdevice.

ip stats show

is used for showing stats on a given netdevice, or dumping statistics across all netdevices. By default, all stats are requested. It is possible to filter which stats are requested by using the group and subgroup keywords.

It is possible to specify several groups, or several subgroups for one group. When no subgroups are given for a group, all the

subgroups are requested.

The following groups are recognized:

group link - Link statistics. The same suite that "ip -s link show" shows.

group offload - A group that contains a number of HW-oriented statistics. See below for individual subgroups within this group.

group xstats - Extended statistics. A subgroup identifies the type of netdevice to show the statistics for.

group xstats_slave - Extended statistics for the slave of a net? device of a given type. A subgroup identifies the type of master netdevice.

group afstats - A group for address-family specific netdevice statistics.

group offload subgroups:

subgroup cpu_hit - The cpu_hit statistics suite is useful on hardware netdevices. The link statistics on these devices reflect both the hardware- and software-datapath traffic. The cpu_hit statistics then only reflect software-data? path traffic.

subgroup hw_stats_info - This suite does not include traffic statistics, but rather communicates the state of other statistics. Through this subgroup, it is possible to discover whether a given statistic was enabled, and when it was, whether any device driver actually configured its device to collect these statistics. For example, l3_stats was enabled in the following case, but no driver has installed it:

```
# ip stats show dev swp1 group offload subgroup
hw_stats_info

56: swp1: group offload subgroup hw_stats_info
    l3_stats on used off
```

After an L3 address is added to the netdevice, the

counter will be installed:

```
# ip addr add dev swp1 192.0.2.1/28
```

```
# ip stats show dev swp1 group offload subgroup
```

```
hw_stats_info
```

```
56: swp1: group offload subgroup hw_stats_info
```

```
l3_stats on used on
```

subgroup l3_stats - These statistics reflect L3 traffic that

takes place in HW on an object that corresponds to the

netdevice. Note that this suite is disabled by default

and needs to be first enabled through ip stats set.

For example:

```
# ip stats show dev swp2.200 group offload subgroup
```

```
l3_stats
```

```
112: swp2.200: group offload subgroup l3_stats on used on
```

```
RX: bytes packets errors dropped mcast
```

```
8900 72 2 0 3
```

```
TX: bytes packets errors dropped
```

```
7176 58 0 0
```

Note how the l3_stats_info for the selected group is also

part of the dump.

group xstats and group xstats_slave subgroups:

subgroup bridge [suite stp] [suite mcast] - Statistics for

STP and, respectively, IGMP / MLD (under the keyword

mcast) traffic on bridges and their slaves.

subgroup bond [suite 802.3ad] - Statistics for LACP traffic on

bond devices and their slaves.

group afstats subgroups:

subgroup mpls - Statistics for MPLS traffic seen on the netde?

vice. For example:

```
# ip stats show dev veth01 group afstats subgroup mpls
```

```
3: veth01: group afstats subgroup mpls
```

```
RX: bytes packets errors dropped noroute
```

```
0 0 0 0 0
```

TX: bytes packets errors dropped

216 2 0 0

EXAMPLES

```
# ip stats set dev swp1 l3_stats on
```

Enables collection of L3 HW statistics on swp1.

```
# ip stats show group offload
```

Shows all offload statistics on all netdevices.

```
# ip stats show dev swp1 group link
```

Shows link statistics on the given netdevice.

SEE ALSO

ip(8), ip-link(8),

AUTHOR

Manpage by Petr Machata.

iproute2

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