



Rocky Enterprise Linux 9.2 Manual Pages on command 'tc-simple.8'

\$ man tc-simple.8

Simple action in tc(8) Linux Simple action in tc(8)

NAME

simple - basic example action

SYNOPSIS

tc ... action simple [sdata STRING] [index INDEX] [CONTROL]

CONTROL := { reclassify | pipe | drop | continue | ok }

DESCRIPTION

This is a pedagogical example rather than an actually useful action.

Upon every access, it prints the given STRING which may be of arbitrary length.

OPTIONS

sdata STRING

The actual string to print.

index INDEX

Optional action index value.

CONTROL

Indicate how tc should proceed after executing the action. For a description of the possible CONTROL values, see tc-actions(8).

EXAMPLES

The following example makes the kernel yell "Incoming ICMP!" every time it sees an incoming ICMP on eth0. Steps are:

- 1) Add an ingress qdisc point to eth0
- 2) Start a chain on ingress of eth0 that first matches ICMP then invokes the simple action to shout.
- 3) display stats and show that no packet has been seen by the action
- 4) Send one ping packet to google (expect to receive a response back)
- 5) grep the logs to see the logged message
- 6) display stats again and observe increment by 1

```
hadi@noma1:~$ tc qdisc add dev eth0 ingress
```

```
hadi@noma1:~$ tc filter add dev eth0 parent ffff: protocol ip prio 5 \
```

```
u32 match ip protocol 1 0xff flowid 1:1 action simple sdata "Incoming ICMP"
```

```
hadi@noma1:~$ sudo tc -s filter ls dev eth0 parent ffff:
```

```
filter protocol ip pref 5 u32
```

```
filter protocol ip pref 5 u32 fh 800: ht divisor 1
```

```
filter protocol ip pref 5 u32 fh 800::800 order 2048 key ht 800 bkt 0 flowid 1:1
```

match 00010000/00ff0000 at 8

action order 1: Simple <Incoming ICMP>

index 4 ref 1 bind 1 installed 29 sec used 29 sec

Action statistics:

Sent 0 bytes 0 pkt (dropped 0, overlimits 0 requeues 0)

backlog 0b 0p requeues 0

hadi@noma1\$ ping -c 1 www.google.ca

PING www.google.ca (74.125.225.120) 56(84) bytes of data.

64 bytes from ord08s08-in-f24.1e100.net (74.125.225.120): icmp_req=1 ttl=53 time=31.3 ms

--- www.google.ca ping statistics ---

1 packets transmitted, 1 received, 0% packet loss, time 0ms

rtt min/avg/max/mdev = 31.316/31.316/31.316/0.000 ms

hadi@noma1\$ dmesg | grep simple

[135354.473951] simple: Incoming ICMP_1

hadi@noma1\$ sudo tc/tc -s filter ls dev eth0 parent ffff:

filter protocol ip pref 5 u32

filter protocol ip pref 5 u32 fh 800: ht divisor 1

filter protocol ip pref 5 u32 fh 800::800 order 2048 key ht 800 bkt 0 flowid 1:1

match 00010000/00ff0000 at 8

action order 1: Simple <Incoming ICMP>

index 4 ref 1 bind 1 installed 206 sec used 67 sec

Action statistics:

Sent 84 bytes 1 pkt (dropped 0, overlimits 0 requeues 0)

backlog 0b 0p requeues 0

SEE ALSO

tc(8) tc-actions(8)