

NAME

mirred - mirror/redirect action

SYNOPSIS

tc ... action mirred *DIRECTION ACTION* [**index** *INDEX*] **dev** *DEVICENAME*

DIRECTION := { **ingress** | **egress** }

ACTION := { **mirror** | **redirect** }

DESCRIPTION

The **mirred** action allows packet mirroring (copying) or redirecting (stealing) the packet it receives. Mirror-ing is what is sometimes referred to as Switch Port Analyzer (SPAN) and is commonly used to analyze and/or debug flows.

OPTIONS

ingress

egress Specify the direction in which the packet shall appear on the destination interface.

mirror

redirect

Define whether the packet should be copied (**mirror**) or moved (**redirect**) to the destination inter-face.

index *INDEX*

Assign a unique ID to this action instead of letting the kernel choose one automatically. *INDEX* is a 32bit unsigned integer greater than zero.

dev *DEVICENAME*

Specify the network interface to redirect or mirror to.

EXAMPLES

Limit ingress bandwidth on eth0 to 1mbit/s, redirect exceeding traffic to lo for debugging purposes:

```
# tc qdisc add dev eth0 handle ffff: ingress
# tc filter add dev eth0 parent ffff: u32 \
    match u32 0 0 \
    action police rate 1mbit burst 100k conform-exceed pipe \
    action mirred egress redirect dev lo
```

Mirror all incoming ICMP packets on eth0 to a dummy interface for examination with e.g. tcpdump:

```
# ip link add dummy0 type dummy
# ip link set dummy0 up
# tc qdisc add dev eth0 handle ffff: ingress
# tc filter add dev eth0 parent ffff: protocol ip \
    u32 match ip protocol 1 0xff \
    action mirred egress mirror dev dummy0
```

Using an **ifb** interface, it is possible to send ingress traffic through an instance of **sfq**:

```
# modprobe ifb
# ip link set ifb0 up
# tc qdisc add dev ifb0 root sfq
# tc qdisc add dev eth0 handle ffff: ingress
# tc filter add dev eth0 parent ffff: u32 \
    match u32 0 0 \
    action mirred egress redirect dev ifb0
```

SEE ALSO

tc(8), tc-u32(8)