



### ***Rocky Enterprise Linux 9.2 Manual Pages on command 'tc-fw.8'***

#### ***\$ man tc-fw.8***

Firewall mark classifier in tc(8) Linux Firewall mark classifier in tc(8)

#### NAME

fw - fwmark traffic control filter

#### SYNOPSIS

tc filter ... fw [ classid CLASSID ] [ action ACTION\_SPEC ]

#### DESCRIPTION

the fw filter allows one to classify packets based on a previously set fwmark by iptables. If the masked value of the fwmark matches the filter's masked handle, the filter matches. By default, all 32 bits of the handle and the fwmark are masked. iptables allows one to mark single packets with the MARK target, or whole connections using CONNMARK. The benefit of using this filter instead of doing the heavy-lifting with tc itself is that on one hand it might be convenient to keep packet filtering and classification in one place, possibly having to match a packet just once, and on the other users familiar with iptables but not tc will have a less hard time adding QoS to their setups.

#### OPTIONS

classid CLASSID

Push matching packets to the class identified by CLASSID.

action ACTION\_SPEC

Apply an action from the generic actions framework on matching packets.

## EXAMPLES

Take e.g. the following tc filter statement:

```
tc filter add ... handle 6 fw classid 1:1
```

will match if the packet's fwmark value is 6. This is a sample iptables

statement marking packets coming in on eth0:

```
iptables -t mangle -A PREROUTING -i eth0 -j MARK --set-mark 6
```

Specific bits of the packet's fwmark can be set using the `skbedit` action.

For example, to only set one bit of the fwmark without changing

any other bit:

```
tc filter add ... action skbedit mark 0x8/0x8
```

The fw filter can then be used to match on this bit by masking the handle:

tc filter add ... handle 0x8/0x8 fw action drop

This is useful when different bits of the fwmark are assigned different meanings.

## SEE ALSO

`tc(8)`, `iptables(8)`, `iptables-extensions(8)`, `tc-skbedit(8)`

`iproute2`

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