Red Hat Enterprise Linux Release 9.2 Manual Pages on 'tc-cgroup.8' command

$ man tc-cgroup.8

Cgroup classifier in tc(8)   Linux   Cgroup classifier in tc(8)

NAME

    cgroup - control group based traffic control filter

SYNOPSIS

    tc filter ... cgroup [match EMATCH_TREE] [action ACTION_SPEC]

DESCRIPTION

    This filter serves as a hint to tc that the assigned class ID of the

    net_cls control group the process the packet originates from belongs to

    should be used for classification. Obviously, it is useful for locally

    generated packets only.

OPTIONS

    action ACTION_SPEC

        Apply an action from the generic actions framework on matching

        packets.

    match EMATCH_TREE

        Match packets using the extended match infrastructure. See tc-

        ematch(8) for a detailed description of the allowed syntax in

        EMATCH_TREE.

EXAMPLES

In order to use this filter, a net_cls control group has to be created
first and class as well as process ID(s) assigned to it. The following
creates a net_cls cgroup named "foobar":

```
modprobe cls_cgroup
mkdir /sys/fs/cgroup/net_cls
mount -t cgroup -onet_cls net_cls /sys/fs/cgroup/net_cls
mkdir /sys/fs/cgroup/net_cls/foobar
```

To assign a class ID to the created cgroup, a file named net_cls.clas?
sid has to be created which contains the class ID to be assigned as a
hexadecimal, 64bit wide number. The upper 32bits are reserved for the
major handle, the remaining hold the minor. So a class ID of e.g.
ff:be has to be written like so: 0xff00be (leading zeroes may be omit?
ted). To continue the above example, the following assigns class ID 1:2
to foobar cgroup:

```
echo 0x10002 > /sys/fs/cgroup/net_cls/foobar/net_cls.classid
```

Finally some PIDs can be assigned to the given cgroup:

```
echo 1234 > /sys/fs/cgroup/net_cls/foobar/tasks
echo 5678 > /sys/fs/cgroup/net_cls/foobar/tasks
```

Now by simply attaching a cgroup filter to a qdisc makes packets from
PIDs 1234 and 5678 be pushed into class 1:2.

SEE ALSO

tc(8), tc-ematch(8),

the file Documentation/cgroups/net_cls.txt of the Linux kernel tree