Rocky Enterprise Linux 9.2 Manual Pages on command 'dcb-ets.8'

$ man dcb-ets.8

DCB-ETS(8)   Linux   DCB-ETS(8)

NAME

   dcb-ets - show / manipulate ETS (Enhanced Transmission Selection) settings of the DCB

   (Data Center Bridging) subsystem

SYNOPSIS

   dcb [OPTIONS] ets { COMMAND | help }

   dcb ets show dev DEV [willing] [ets-cap] [cbs] [tc-tsa] [reco-tc-tsa] [pg-bw]

       [tc-bw] [reco-tc-bw] [prio-tc] [reco-prio-tc]

   dcb ets set dev DEV [willing { on | off }] [{ tc-tsa | reco-tc-tsa } TSA-MAP] [{ pg-

       bw | tc-bw | reco-tc-bw } BW-MAP] [{ prio-tc | reco-prio-tc } PRIO-MAP]

   TSA-MAP := [TSA-MAP] TSA-MAPPING

   TSA-MAPPING := { TC | all }:{ strict | cbs | ets | vendor }

   BW-MAP := [BW-MAP] BW-MAPPING

   BW-MAPPING := { TC | all }:INTEGER

   PRIO-MAP := [PRIO-MAP] PRIO-MAPPING

   PRIO-MAPPING := { PRIO | all }:TC

   TC := { 0 .. 7 }

   PRIO := { 0 .. 7 }

DESCRIPTION

   dcb ets is used to configure Enhanced Transmission Selection attributes through Linux DCB

   (Data Center Bridging) interface. ETS permits configuration of mapping of priorities to

   traffic classes, traffic selection algorithm to use per traffic class, bandwidth alloca?

   tion, etc.

Two DCB TLVs are related to the ETS feature: a configuration and recommendation values. Recommendation values are named with a prefix reco-, while the configuration ones have plain names.

PARAMETERS

For read-write parameters, the following describes only the write direction, i.e. as used with the set command. For the show command, the parameter name is to be used as a simple keyword without further arguments. This instructs the tool to show the value of a given parameter. When no parameters are given, the tool shows the complete ETS configuration.

ets-cap

A read-only property that shows the number of supported ETS traffic classes.

cbs   A read-only property that is enabled if the driver and the hardware support the CBS Transmission Selection Algorithm.

willing { on | off }

Whether local host should accept configuration from peer TLVs.

prio-tc PRIO-MAP

reco-prio-tc PRIO-MAP

PRIO-MAP uses the array parameter syntax, see dcb(8) for details. Keys are priori? ties, values are traffic classes. For each priority sets a TC where traffic with that priority is directed to.

tc-tsa TSA-MAP

reco-tc-tsa TSA-MAP

TSA-MAP uses the array parameter syntax, see dcb(8) for details. Keys are TCs, val? ues are Transmission Selection Algorithm (TSA) keywords described below. For each TC sets an algorithm used for deciding how traffic queued up at this TC is sched? uled for transmission. Supported TSAs are:

strict - for strict priority, where traffic in higher-numbered TCs always takes precedence over traffic in lower-numbered TCs.

ets - for Enhanced Traffic Selection, where available bandwidth is distributed among the ETS-enabled TCs according to the weights set by tc-bw and reco-tc-bw, re? spectively.

cbs - for Credit Based Shaper, where traffic is scheduled in a strict manner up to the limit set by a shaper.

vendor - for vendor-specific traffic selection algorithm.

tc-bw BW-MAP

reco-tc-bw BW-MAP

> BW-MAP uses the array parameter syntax, see dcb(8) for details. Keys are TCs, val?
>
> ues are integers representing percent of available bandwidth given to the traffic
>
> class in question. The value should be 0 for TCs whose TSA is not ets, and the sum
>
> of all values shall be 100. As an exception to the standard wording, a configura?
>
> tion with no ets TCs is permitted to sum up to 0 instead.

pg-bw BW-MAP

> The precise meaning of pg-bw is not standardized, but the assumption seems to be
>
> that the same scheduling process as on the transmit side is applicable on receive
>
> side as well, and configures receive bandwidth allocation for ets ingress traffic
>
> classes (priority groups).

EXAMPLE & USAGE

Configure ETS priomap in a one-to-one fashion:

dcb ets set dev eth0 prio-tc 0:0 1:1 2:2 3:3 4:4 5:5 6:6 7:7

Set TSA and transmit bandwidth configuration:

dcb ets set dev eth0 tc-tsa all:strict 0:ets 1:ets 2:ets \

        tc-bw all:0 0:33 1:33 2:34

Show what was set:

dcb ets show dev eth0 prio-tc tc-tsa tc-bw

prio-tc 0:0 1:1 2:2 3:3 4:4 5:5 6:6 7:7

tc-tsa 0:ets 1:ets 2:ets 3:strict 4:strict 5:strict 6:strict 7:strict

tc-bw 0:33 1:33 2:34 3:0 4:0 5:0 6:0 7:0

EXIT STATUS

Exit status is 0 if command was successful or a positive integer upon failure.

SEE ALSO

dcb(8)

REPORTING BUGS

Report any bugs to the Network Developers mailing list <netdev@vger.kernel.org> where the

development and maintenance is primarily done. You do not have to be subscribed to the

list to send a message there.

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