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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'devlink-dev.8' command

$ man devlink-dev.8

DEVLINK-DEV(8) Linux DEVLINK-DEV(8)

NAME

devlink-dev - devlink device configuration

SYNOPSIS

devlink [OPTIONS] dev { COMMAND | help }

OPTIONS := { -V[ersion] | -n[no-nice-names] }

devlink dev show [DEV]

devlink dev help

devlink dev eswitch set DEV [mode { legacy | switchdev }] [inline-

mode { none | link | network | transport }] [encap-mode {

none | basic }]

devlink dev eswitch show DEV

devlink dev param set DEV name PARAMETER value VALUE cmode { runtime |

driverinit | permanent }

devlink dev param show [DEV name PARAMETER]

devlink dev reload DEV [netns { PID | NAME | ID }] [action {

driver_reinit | fw_activate }] [limit no_reset]

devlink dev info [DEV]

devlink dev flash DEV file PATH [target ID]

devlink dev selftests show [DEV]

devlink dev selftests run DEV [id ID...]

DESCRIPTION

devlink dev show - display devlink device attributes

DEV - specifies the devlink device to show. If this argument is omit?

ted all devices are listed.

Format is:

BUS_NAME/BUS_ADDRESS

devlink dev eswitch show - display devlink device eswitch attributes

devlink dev eswitch set - sets devlink device eswitch attributes

mode { legacy | switchdev }

Set eswitch mode

legacy - Legacy SRIOV

switchdev - SRIOV switchdev offloads

inline-mode { none | link | network | transport }

Some HWs need the VF driver to put part of the packet headers on

the TX descriptor so the e-switch can do proper matching and

steering.

none - None

link - L2 mode

network - L3 mode

transport - L4 mode

encap-mode { none | basic }

Set eswitch encapsulation support

none - Disable encapsulation support

basic - Enable encapsulation support

devlink dev param set - set new value to devlink device configuration pa?

rameter

name PARAMETER

Specify parameter name to set.

value VALUE

New value to set.

cmode { runtime | driverinit | permanent }

Configuration mode in which the new value is set.

runtime - Set new value while driver is running. This configura?

tion mode doesn't require any reset to apply the new value.

driverinit - Set new value which will be applied during driver

initialization. This configuration mode requires restart driver
by devlink reload command to apply the new value.
permanent - New value is written to device's non-volatile mem?
ory. This configuration mode requires hard reset to apply the
new value.

devlink dev param show - display devlink device supported configuration pa?
rameters attributes

name PARAMETER Specify parameter name to show. If this argument is
omitted all parameters supported by devlink devices are listed.

devlink dev reload - perform hot reload of the driver.

DEV - Specifies the devlink device to reload.

netns { PID | NAME | ID } - Specifies the network namespace to reload
into, either by pid, name or id.

action { driver_reinit | fw_activate } - Specifies the reload action
required. If this argument is omitted driver_reinit action will be
used. Note that even though user asks for a specific action, the
driver implementation might require to perform another action alongside
with it. For example, some driver do not support driver reinitializa?
tion being performed without fw activation. Therefore, the devlink
reload command returns the list of actions which were actrually per?
formed.

driver_reinit - Driver entities re-initialization, applying devlink-
param and devlink-resource values.

fw_activate - Activates new firmware if such image is stored and pend?
ing activation. If no limitation specified this action may involve
firmware reset. If no new image pending this action will reload current
firmware image.

limit no_reset - Specifies limitation on reload action. If this argu?
ment is omitted limit is unspecified and the reload action is not lim?
ited. In such case driver implementation may include reset or downtime
as needed to perform the actions.

no_reset - No reset allowed, no down time allowed, no link flap and no
configuration is lost.

devlink dev info - display device information.

Display device information provided by the driver. This command can be used to query versions of the hardware components or device components which can't be updated (fixed) as well as device firmware which can be updated. For firmware components running displays the versions of firmware currently loaded into the device, while stored reports the versions in device's flash. Running and stored versions may differ af? ter flash has been updated, but before reboot.

DEV - specifies the devlink device to show. If this argument is omit? ted all devices are listed.

devlink dev flash - write device's non-volatile memory.

DEV - specifies the devlink device to write to.

file PATH - Path to the file which will be written into device's flash. The path needs to be relative to one of the directories searched by the kernel firmware loader, such as /lib/firmware.

component NAME - If device stores multiple firmware images in non-volatile memory, this parameter may be used to indicate which firmware image should be written. The value of NAME should match the component names from devlink dev info and may be driver-dependent.

devlink dev selftests show - shows supported selftests on devlink device.

DEV - specifies the devlink device. If this argument is omitted all selftests for devlink devices are listed.

devlink dev selftests run - runs selftests on devlink device.

DEV - specifies the devlink device to execute selftests.

id ID... - The value of ID(s) should match the selftests shown in de? vlink dev selftests show to execute selftests on the devlink device. If this argument is omitted all selftests supported by devlink devices are executed.

EXAMPLES

devlink dev show

Shows the state of all devlink devices on the system.

devlink dev show pci/0000:01:00.0

Shows the state of specified devlink device.

devlink dev eswitch show pci/0000:01:00.0

Shows the eswitch mode of specified devlink device.

devlink dev eswitch set pci/0000:01:00.0 mode switchdev

Sets the eswitch mode of specified devlink device to switchdev.

devlink dev param show pci/0000:01:00.0 name max_macs

Shows the parameter max_macs attributes.

devlink dev param set pci/0000:01:00.0 name internal_error_reset value

true cmode runtime

Sets the parameter internal_error_reset of specified devlink device

to true.

devlink dev reload pci/0000:01:00.0

Performs hot reload of specified devlink device.

devlink dev flash pci/0000:01:00.0 file firmware.bin

Flashes the specified devlink device with provided firmware file

name. If the driver supports it, user gets updates about the flash

status. For example:

Preparing to flash

Flashing 100%

Flashing done

devlink dev selftests show pci/0000:01:00.0

Shows the supported selftests by the devlink device.

devlink dev selftests run pci/0000:01:00.0 id flash

Perform a flash test on the devlink device.

SEE ALSO

devlink(8), devlink-port(8), devlink-sb(8), devlink-monitor(8),

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