

NAME

devlink-port – devlink port configuration

SYNOPSIS

devlink [*OPTIONS*] **port** { *COMMAND* | **help** }

OPTIONS := { -**V**[*ersion*] | -**n**[*o-nice-names*] }

devlink port set *DEV/PORT_INDEX* [**type** { **eth** | **ib** | **auto** }]

devlink port split *DEV/PORT_INDEX* **count** *COUNT*

devlink port unsplit *DEV/PORT_INDEX*

devlink port show [*DEV/PORT_INDEX*]

devlink port health { *show* | *recover* | *diagnose* | *dump* | *set* }

devlink port add { *DEV* | *DEV/PORT_INDEX* } [**flavour** *FLAVOUR*] [**pfnum** *PFNUMBER*] [**sfnum** *SFNUMBER*] [**controller** *CNUM*]

devlink port del *DEV/PORT_INDEX*

devlink port function set *DEV/PORT_INDEX* [**hw_addr** *ADDR*] [**state** { **active** | **inactive** }] [**roce** { **enable** | **disable** }] [**migratable** { **enable** | **disable** }] [**ipsec_crypto** { **enable** | **disable** }] [**ipsec_packet** { **enable** | **disable** }] [**max_io_eqs** *EQS*]

devlink port function rate { *show* | *set* | *add* | *del* | *help* }

devlink dev param set *DEV/PORT_INDEX* **name** *PARAMETER* **value** *VALUE* **cmode** { **runtime** | **driverinit** | **permanent** }

devlink dev param show [*DEV/PORT_INDEX* **name** *PARAMETER*]

devlink port help

DESCRIPTION

devlink port set - change devlink port attributes

DEV/PORT_INDEX - specifies the devlink port to operate on.

Format is:

BUS_NAME/BUS_ADDRESS/PORT_INDEX

type { **eth** | **ib** | **auto** }

Set port type.

eth - Ethernet

ib - Infiniband

auto - autoselect

devlink port split - split devlink port into more

DEV/PORT_INDEX - specifies the devlink port to operate on.

count *COUNT*

Number of ports to split into.

devlink port unsplit - unsplit previously split devlink port

Could be performed on any split port of the same split group.

DEV/PORT_INDEX - specifies the devlink port to operate on.

devlink port show - display devlink port attributes

DEV/PORT_INDEX - specifies the devlink port to show. If this argument is omitted all ports are listed.

devlink port health - devlink health reporting and recovery

Is an alias for **devlink-health**(8).

devlink port add - add a devlink port

DEV - specifies the devlink device to operate on, or

DEV/PORT_INDEX - specifies the devlink port index to use for the requested new port. This is optional. When omitted, driver allocates unique port index.

flavour { **pcipf** | **pcisf** }

set port flavour

pcipf - PCI PF port

pcisf - PCI SF port

pfnum *PFNUMBER*

Specifies the PCI PF number on which to create an SF device.

sfnum *SFNUMBER*

Specifies sfnumber to assign to the device of the SF. This field is optional for those devices which support auto assignment of the SF number.

controller *CNUM*

Specifies controller number for which the SF port is created. This field is optional. It is used only when SF port is created for the external controller.

devlink port function set - Set the port function attribute(s).

DEV/PORT_INDEX - specifies the devlink port to operate on.

hw_addr *ADDR*

Hardware address of the function to set. This is an Ethernet MAC address when port type is Ethernet.

state { active | inactive }

New state of the function to change to.

active - Once configuration of the function is done, activate the function.

inactive - To inactivate the function and its device(s), set to inactive.

roce { enable | disable }

Set the RoCE capability of the function.

migratable { enable | disable }

Set the migratable capability of the function.

ipsec_crypto { enable | disable }

Set the IPsec crypto offload capability of the function. Controls XFRM state crypto operation (Encrypt/Decrypt) offload.

ipsec_packet { enable | disable }

Set the IPsec packet offload capability of the function. Controls XFRM state and policy offload (Encrypt/Decrypt operation and IPsec encapsulation).

max_io_eqs EQS

Set the maximum number of IO event queues of the function.

devlink port del - delete a devlink port

DEV/PORT_INDEX - specifies the devlink port to delete.

devlink port param set - set new value to devlink port configuration parameter

DEV/PORT_INDEX - specifies the devlink port to operate on.

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 configuration 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 restarting the driver by devlink reload command to apply the new value.

permanent - New value is written to device's non-volatile memory. This configuration mode requires hard reset to apply the new value.

devlink port param show - display devlink port supported configuration parameters attributes

DEV/PORT_INDEX - specifies the devlink port to operate on.

name *PARAMETER* Specify parameter name to show. If this argument, as well as port index, are omitted - all parameters supported by devlink device ports are listed.

devlink port function rate - manage devlink rate objects

Is an alias for **devlink-rate(8)**.

EXAMPLES

devlink port show

Shows the state of all devlink ports on the system.

devlink port show pci/0000:01:00.0/1

Shows the state of specified devlink port.

devlink port set pci/0000:01:00.0/1 type eth

Set type of specified devlink port to Ethernet.

devlink port split pci/0000:01:00.0/1 count 4

Split the specified devlink port into four ports.

devlink port unsplit pci/0000:01:00.0/1

Unsplit the specified previously split devlink port.

devlink port health show

Shows status and configuration of all supported reporters registered on all devlink ports.

devlink port health show pci/0000:01:00.0/1 reporter tx

Shows status and configuration of tx reporter registered on pci/0000:01:00.0/1 devlink port.

devlink port add pci/0000:06:00.0 flavour pcisf pfnum 0 sfnum 88

Add a devlink port of flavour PCI SF on PCI PF having number 0 with SF number 88. To make use of the function an example sequence is to add a port, configure the function attribute and activate the function. Once function usage is completed, inactivate the function and finally delete the port. When there is desire to reuse the port without deletion, it can be reconfigured and activated again when function is in inactive state and function's operational state is detached.

devlink port del pci/0000:06:00.0/1

Delete previously created devlink port. It is recommended to first deactivate the function if the function supports state management.

devlink port function set pci/0000:01:00.0/1 hw_addr 00:00:00:11:22:33

Configure hardware address of the PCI function represented by devlink port. If the port supports change in function state, hardware address must be configured before activating the function.

devlink port function set pci/0000:01:00.0/1 state active

Activate the function. This will initiate the function enumeration and driver loading.

devlink port function set pci/0000:01:00.0/1 state inactive

Deactivate the function. This will initiate the function teardown which results in driver unload and device removal.

devlink port function set pci/0000:01:00.0/1 roce enable

This will enable the RoCE functionality of the function.

devlink port function set pci/0000:01:00.0/1 migratable enable

This will enable the migratable functionality of the function.

devlink port function set pci/0000:01:00.0/1 ipsec_crypto enable

This will enable the IPsec crypto offload functionality of the function.

devlink port function set pci/0000:01:00.0/1 ipsec_packet enable

This will enable the IPsec packet offload functionality of the function.

```
devlink port function set pci/0000:01:00.0/1 max_io_eqs 4
```

This will set the maximum number of IO event queues of the function to 4.

```
devlink port function set pci/0000:01:00.0/1 hw_addr 00:00:00:11:22:33 state active
```

Configure hardware address and also activate the function. When a function is activated together with other configuration in a single command, all the configuration is applied first before changing the state to active.

```
devlink dev param show
```

Shows (dumps) all the port parameters across all the devices registered in the devlink.

```
devlink dev param set pci/0000:01:00.0/1 name internal_error_reset value true cmode runtime
```

Sets the parameter `internal_error_reset` of specified devlink port (#1) to true.

```
devlink port add pci/0000:06:00.0 flavour pcisf pfnum 0 sfnum 88 controller 1
```

Add a devlink port of flavour PCI SF on controller 1 which has PCI PF of number 0 with SF number 88. To make use of the function an example sequence is to add a port, configure the function attribute and activate the function. Once the function usage is completed, deactivate the function and finally delete the port. When there is desire to reuse the port without deletion, it can be reconfigured and activated again when function is in inactive state and function's operational state is detached.

SEE ALSO

devlink(8), devlink-dev(8), devlink-sb(8), devlink-monitor(8), devlink-health(8),

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