

**NAME**

devlink-sb – devlink shared buffer configuration

**SYNOPSIS**

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

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

**devlink sb show** [ *DEV* [ **sb** *SB\_INDEX* ] ]

**devlink sb pool show** [ *DEV* [ **sb** *SB\_INDEX* ]  
**pool** *POOL\_INDEX* ]

**devlink sb pool set** *DEV* [ **sb** *SB\_INDEX* ]  
**pool** *POOL\_INDEX*  
**size** *POOL\_SIZE*  
**thtype** { **static** | **dynamic** }

**devlink sb port pool show** [ *DEV/PORT\_INDEX* [ **sb** *SB\_INDEX* ]  
**pool** *POOL\_INDEX* ]

**devlink sb port pool set** *DEV/PORT\_INDEX* [ **sb** *SB\_INDEX* ]  
**pool** *POOL\_INDEX*  
**th** *THRESHOLD*

**devlink sb tc bind show** [ *DEV/PORT\_INDEX* [ **sb** *SB\_INDEX* ]  
**tc** *TC\_INDEX*  
**type** { **ingress** | **egress** } ]

**devlink sb tc bind set** *DEV/PORT\_INDEX* [ **sb** *SB\_INDEX* ]  
**tc** *TC\_INDEX*  
**type** { **ingress** | **egress** }  
**pool** *POOL\_INDEX*  
**th** *THRESHOLD*

**devlink sb occupancy show** { *DEV* | *DEV/PORT\_INDEX* } [ **sb** *SB\_INDEX* ]

**devlink sb occupancy snapshot** *DEV* [ **sb** *SB\_INDEX* ]

**devlink sb occupancy clearmax** *DEV* [ **sb** *SB\_INDEX* ]

**devlink sb help**

**DESCRIPTION****devlink sb show - display available shared buffers and their attributes**

*DEV* - specifies the devlink device to show shared buffers. If this argument is omitted all shared buffers of all devices are listed.

*SB\_INDEX* - specifies the shared buffer. If this argument is omitted shared buffer with index 0 is selected. Behaviour of this argument is the same for every command.

**devlink sb pool show - display available pools and their attributes**

*DEV* - specifies the devlink device to show pools. If this argument is omitted all pools of all devices are listed.

Display available pools listing their **type**, **size**, **thtype** and **cell\_size**. **cell\_size** is the allocation granularity of memory within the shared buffer. Drivers may round up, round down or reject **size** passed to the set command if it is not multiple of **cell\_size**.

**devlink sb pool set - set attributes of pool**

*DEV* - specifies the devlink device to set pool.

**size** *POOL\_SIZE*

size of the pool in Bytes.

**thtype** { **static** | **dynamic** }

pool threshold type.

*static* - Threshold values for the pool will be passed in Bytes.

*dynamic* - Threshold values ("to\_alpha") for the pool will be used to compute alpha parameter according to formula:

$$\alpha = 2^{(\text{to\_alpha} - 10)}$$

The range of the passed value is between 0 to 20. The computed alpha is used to determine the maximum usage of the flow:

$$\text{max\_usage} = \alpha / (1 + \alpha) * \text{Free\_Buffer}$$

**devlink sb port pool show - display port-pool combinations and threshold for each**

*DEV/PORT\_INDEX* - specifies the devlink port.

**pool** *POOL\_INDEX*

pool index.

**devlink sb port pool set - set port-pool threshold**

*DEV/PORT\_INDEX* - specifies the devlink port.

**pool** *POOL\_INDEX*

pool index.

**th** *THRESHOLD*

threshold value. Type of the value is either Bytes or "to\_alpha", depends on **thtype** set for the pool.

**devlink sb tc bind show - display port-TC to pool bindings and threshold for each**

*DEV/PORT\_INDEX* - specifies the devlink port.

**tc** *TC\_INDEX*

index of either ingress or egress TC, usually in range 0 to 8 (depends on device).

**type** { **ingress** | **egress** }  
 TC type.

**devlink sb tc bind set - set port-TC to pool binding with specified threshold**

*DEV/PORT\_INDEX* - specifies the devlink port.

**tc** *TC\_INDEX*  
 index of either ingress or egress TC, usually in range 0 to 8 (depends on device).

**type** { **ingress** | **egress** }  
 TC type.

**pool** *POOL\_INDEX*  
 index of pool to bind this to.

**th** *THRESHOLD*  
 threshold value. Type of the value is either Bytes or "to\_alpha", depends on **thtype** set for the pool.

**devlink sb occupancy show - display shared buffer occupancy values for device or port**

This command is used to browse shared buffer occupancy values. Values are showed for every port-pool combination as well as for all port-TC combinations (with pool this port-TC is bound to). Format of value is:

current\_value/max\_value

Note that before showing values, one has to issue **occupancy snapshot** command first.

*DEV* - specifies the devlink device to show occupancy values for.

*DEV/PORT\_INDEX* - specifies the devlink port to show occupancy values for.

**devlink sb occupancy snapshot - take occupancy snapshot of shared buffer for device**

This command is used to take a snapshot of shared buffer occupancy values. After that, the values can be showed using **occupancy show** command.

*DEV* - specifies the devlink device to take occupancy snapshot on.

**devlink sb occupancy clearmax - clear occupancy watermarks of shared buffer for device**

This command is used to reset maximal occupancy values reached for whole device. Note that before browsing reset values, one has to issue **occupancy snapshot** command.

*DEV* - specifies the devlink device to clear occupancy watermarks on.

## EXAMPLES

devlink sb show  
 List available share buffers.

devlink sb pool show  
 List available pools and their config.

devlink sb port pool show pci/0000:03:00.0/1 pool 0  
 Show port-pool setup for specified port and pool.

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sudo devlink sb port pool set pci/0000:03:00.0/1 pool 0 th 15
    Change threshold for port specified port and pool.

devlink sb tc bind show pci/0000:03:00.0/1 tc 0 type ingress
    Show pool binding and threshold for specified port and TC.

sudo devlink sb tc bind set pci/0000:03:00.0/1 tc 0 type ingress pool 0 th 9
    Set pool binding and threshold for specified port and TC.

sudo devlink sb occupancy snapshot pci/0000:03:00.0
    Make a snapshot of occupancy of shared buffer for specified devlink device.

devlink sb occupancy show pci/0000:03:00.0/1
    Show occupancy for specified port from the snapshot.

sudo devlink sb occupancy clearmax pci/0000:03:00.0
    Clear watermarks for shared buffer of specified devlink device.
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**SEE ALSO**

**devlink(8), devlink-dev(8), devlink-port(8), devlink-monitor(8),**

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