Ports and Port Channel Commands

hostaction pnic-breakout

To change the PNIC mode from 2x40G to 4x10G or from 4x10G to 2x40G, use the **hostaction pnic-breakout device** command in privileged EXEC mode.

hostaction pnic-breakout device *number* **mode** *pnic mode*

Syntax Description	**pnic-breakout**	Changes the PNIC mode from 2x40G to 4x10G or vice-versa.
	device *number*	Specifies the number of devices on which the mode must be changed.
	mode *pnic mode*	Specifies the desired PNIC mode (4x10 or 2x40).

Command Default None

Command Modes Privileged EXEC (#)

Command History

Release	Modification
4.7.1	This command was introduced.

Example

```
nfvis# hostaction pnic-breakout device 1 mode 4x10
Warning: Will reboot the system after the mode is changed on the 40G PNIC. All PNIC
configuration like adminstatus, duplex, lldp, promiscuous, speed, sriov, track-state
will be lost and set to default.
Are you sure you want to perform the PNIC breakout? [no,yes] yes

System message at 2021-06-02 21:15:36...
Commit performed ny via tcp using system.

Broadcast message from root@nfvis (Wed 2021-06-02 21:15:36 UTC):

The system is going down for reboot at Wed 2021-06-02 21:16:36 UTC!
```

hostaction pnic-breakout force

To forcefully breakout from 2x40G mode to 4x10G mode or vice-versa, use the **hostaction pnic-breakout force** command in privileged EXEC mode. This command is used exclusively for return merchandise authorization (RMA) cases.

hostaction   pnic-breakout   force   device *number*   **mode**   *pnic mode*

Syntax Description

pnic-breakout	Changes the PNIC mode from 2x40G to 4x10G or vice-versa.
force	Forces the PNIC mode change.
device *number*	Specifies the number of devices on which the mode must be changed.
mode *pnic mode*	Specifies the desired PNIC mode (2x40 or 4x10).

Command Default   None

Command Modes   Privileged EXEC (#)

Command History

Release	Modification
4.7.1	This command was introduced.

Example

```
nfvis# hostaction pnic-breakout force device 1 mode 4x10
Warning: Will reboot the system after the mode is changed on the 40G PNIC. All PNIC
configuration like adminstatus, duplex, lldp, promiscuous, speed, sriov, track-state
will be lost and set to default.
Are you sure you want to perform the PNIC breakout? [no,yes] yes

Broadcast message from root@nfvis (Wed 2021-06-02 21:38:53 UTC):

The system is going down for reboot at Wed 2021-06-02 21:39:53 UTC!
```

pnic

To modify the configuration of an Ethernet port or to create a port channel, use the **pnic** command. To set an Ethernet port to its default settings or to delete a port channel, use the **no** form of the command.

pnic *name* [**adminstatus** {**up** | **down**}] [**type** {**ethernet** | **port_channel**}] [**bond_mode** {**active-backup** | **balance-slb** | **balance-tcp**}] [**lacp_type** {**active** | **passive** | **off**}] [**member_of** *portchannel_name*] [**trunks** *vlan_num*] [**lldp** {**enabled** | **disabled**}]

no pnic *name* [**adminstatus**] [**type**] [**bond_mode**] [**lacp_type**] [**lldp**] [**member_of** *portchannel_name*]

Syntax Description		
	name	Specifies the name of the port.
	adminstatus	Brings a port up or down administratively. Valid values are **up** and **down**. **Note** **adminstatus** is not supported on port channel.
	type	Specifies the type of the port. Valid values are **ethernet** and **port_channel**. To create a port channel, you must specify the value as **port_channel**.
	bond_mode	Specifies the bond mode for a port channel. Valid values are **active-backup**, **balance-slb**, and **balance-tcp**. Default is **balance-tcp**.
	lacp_type	Specifies the LACP type for a port channel. Valid values are **off**, **active**, and **passive**. Default is **off**.
	member_of *portchannel_name*	Adds the port to the specified port channel.
	trunks *vlan_num*	Specifies the VLANs. Valid range is from 1 to 4096. Default is VLAN 1. Enter VLANs separated by commas, VLAN ranges separated by dashes, or a combination of both.
	lldp	Enables or disables LLDP on a port. Valid values are **enable** and **disable**. Default is **disable**. **Note** **lldp** is not supported on port channel.

Command Default	None

Command Modes	Global configuration (config)

Command History

Release	Modification
3.7.1	This command was introduced.

Example

```
nfvis# config
nfvis(config)# pnic pc type port_channel
nfvis(config-pnic-pc)# commit
nfvis(config-pnic-pc)# end
```

Example

```
nfvis# config
nfvis(config)# no pnic eth2 member_of pc
nfvis(config-pnic-eth2)# commit
nfvis(config-pnic-eth2)# end
```

show nic

To display the various NIC cards inserted in the CSP device, use the **show nic** command in privileged EXEC mode.

show   nic

Syntax Description   This command has no keywords or arguments.

Command Default   None

Command Modes   Privileged EXEC (#)

Command History

Release	Modification
4.7.1	This command was introduced.

Example

```
nfvis# show nic
SLOTID  ADAPTER                           VENDOR  DEVID  MODE  DEVNO  PNICS

---------------------------------------------------------------------------------------------------
1       Intel X520 dual port adapter      8086    10fb   NA    NA     ['eth1-1', 'eth1-2']

3       Intel X710-DA4 Quad Port 10Gb SFP+ 8086   1572   NA    NA     ['eth3-1', 'eth3-2',
 'eth3-3', 'eth3-4']
        converged NIC

2       Intel XL710-QDA2 Dual Port 40Gb   8086    1583   2x40  1      ['eth2-1', 'eth2-2']

        QSFP converged NIC

5       Intel i350 Quad Port 1Gb Adapter  8086    1521   NA    NA     ['eth5-1', 'eth5-2',
 'eth5-3', 'eth5-4']
4       Intel X520 dual port adapter      8086    10fb   NA    NA     ['eth4-1', 'eth4-2']

6       Intel X520 dual port adapter      8086    10fb   NA    NA     ['eth6-1', 'eth6-2']
```

show pnic

To display all statistics or only specific information about a port or all ports, use the **show pnic** command in privileged EXEC mode.

show pnic [*name*] [**adminstatus** | **link_state** | **mac_address** | **mtu** | **operational-speed** | **passthrough** | **pch_state** | **refcnt** | **speed** | **sriov_intf** | **stats**]

Syntax Description

name	Specifies the name of the port for which the information is displayed.
adminstatus	Displays the up or down status.
link_state	Displays the link state.
mac_address	Displays the MAC address.
mtu	Displays the maximum transmission unit (MTU) size.
operational-speed	Displays the operational speed.
passthrough	Displays the passthrough mode.
pch_state	Displays the port channel state.
refcnt	Displays the reference count.
speed	Displays the interface speed.
sriov_intf	Displays the SRIOV interface.
stats	Displays the statistics.

Command Default None

Command Modes Privileged EXEC (#)

Command History

Release	Modification
3.7.1	This command was introduced.

Example

```
nfvis# show pnic
Name          Link   Admin  MTU     Mac                  Passthrough    Speed   Op-speed  Rx
Bytes        Packets    Errors   Dropped  Mbps   Broadcast Multicast TX Bytes     Packets
   Errors   Dropped  Collisions Mbps  Broadcast Multicast
=========================================================================================================
eth0          up     up     9000    d8:b1:90:ff:f5:88 none              1G       1000
1469476983    17749881   0         0                              14156964  2888574   198310581
272571     0         0                                                            40
68440
eth1          up     up     9000    d8:b1:90:ff:f5:89 none              1G       1000
```

```
19826137       329353      0         0                 0        325498    4180179          27586
       0          0
       0          27586
eth2          down   up    9000    d8:b1:90:ff:d8:3c none              1G        0              0
              0             0       0                 0         0         0                0
                                    0         0
eth3          down   up    9000    d8:b1:90:ff:d8:3d none              1G        0              0
              0             0       0                 0         0         0                0
                                    0         0
eth4          down   up    9000    d8:b1:90:ff:d8:3e none              1G        0              0
              0             0       0                 0         0         0                0
                                    0         0
eth5          down   up    9000    d8:b1:90:ff:d8:3f none              1G        0              0
              0             0       0                 0         0         0                0
       0          0
                                    0         0
```

Example

```
nfvis# show pnic stats
Name            Rx Bytes      Packets    Errors   Dropped  Mbps    Broadcast Multicast TX Bytes
        Packets       Errors    Dropped  Collisions Mbps  Broadcast Multicast
================================================================================================
eth0          1469743586    17753343   0        0                 14159834  2889066   198318715
     272603       0         0                          40        68450
eth1          19830637      329428     0        0                 0         325573    4181034
     27591        0         0                          0         27591
eth2          0             0          0        0                 0         0         0
       0            0         0                          0         0
eth3          0             0          0        0                 0         0         0
       0            0         0                          0         0
eth4          0             0          0        0                 0         0         0
       0            0         0                          0         0
eth5          0             0          0        0                 0         0         0
       0            0         0                          0         0
       0
```

Example

```
nfvis# show pnic eth1 stats
stats receive bytes 19862257
stats receive packets 329955
stats receive errors 0
stats receive dropped 0
stats receive broadcast 0
stats receive multicast 326100
stats transmit bytes 4187361
stats transmit packets 27628
stats transmit errors 0
stats transmit dropped 0
stats transmit broadcast 0
stats transmit multicast 27628
```

show pnic-breakout

To display the 40G NIC mode and adapter information, use the **show pnic-breakout** command in privileged EXEC mode.

show   pnic-breakout

Syntax Description   This command has no keywords or arguments.

Command Default   None

Command Modes   Privileged EXEC (#)

Command History

Release	Modification
4.7.1	This command was introduced.

Example

```
nfvis# show pnic-breakout
DEVNO  PCI  VENDOR  DEVID  ADAPTER                                        MODE  PNICS

-------------------------------------------------------------------------------------------
1     5e   8086    1583   Cisco(R) Ethernet Converged NIC XL710-QDA2    2x40  ['eth2-1',
'eth2-2']
```

show port-channel

To show configured port channels, use the **show port-channel** command in privileged EXEC mode.

show   port-channel

Syntax Description   This command has no keywords or parameters.

Command Default   None

Command Modes   Privileged EXEC (#)

Command History

Release	Modification
3.7.1	This command was introduced.

Example

```
nfvis# show port-channel
---- bondtrue ----
bond_mode: active-backup
bond may use recirculation: no, Recirc-ID : -1
bond-hash-basis: 0
updelay: 0 ms
downdelay: 0 ms
lacp_status: off
active slave mac: 00:00:00:00:00:00(none)

slave eth1: disabled
  may_enable: false

slave eth2: disabled
  may_enable: false
```

show lldp stats

To display LLDP statistics, use the **show lldp stats** command in privileged EXEC mode.

show lldp stats

Syntax Description   This command has no arguments or keywords.

Command Default   None

Command Modes   Privileged EXEC (#)

Command History

Release	Modification
3.7.1	This command was introduced.

Example

```
nfvis# show lldp stats
TX       DISCARD  ERROR  RX       DISCARDED  UNREC
NAME  FRAMES  RX       RX       FRAMES  TLVS      TLVS    AGEOUTS
--------------------------------------------------------------
eth0  23       0        0        19667   0         0       0
eth1  0        0        0        0       0         0       0
eth2  0        0        0        0       0         0       0
eth3  0        0        0        0       0         0       0
eth4  0        0        0        0       0         0       0
eth5  0        0        0        0       0         0       0
```

show lldp neighbors

To display information about LLDP neighbors, use the **show lldp neighbors** command in privileged EXEC mode.

show lldp neighbors

Syntax Description   This command has no arguments or keywords.

Command Default   None

Command Modes   Privileged EXEC (#)

Command History

Release	Modification
3.7.1	This command was introduced.

Example

```
nfvis# show lldp neighbors
NAME   DEVICE ID   HOLDTIME   CAPS          PLATFORM       PORTID         DESCRIPTION

-------------------------------------------------------------------------------------------------------
eth0   Switch1623  120        Bridge, Router  Cisco IOS Software, Catalyst L3 Switch Software
 (CAT3K_CAA-UNIVERSALK9-M),
Version 15.0(1)EX3, RELEASE SOFTWARE (fc2)                 Ifname: Gi1/0/4
GigabitEthernet1/0/4
eth1   None        0          None          None           None           None

eth2   None        0          None          None           None           None

eth3   None        0          None          None           None           None

eth4   None        0          None          None           None           None

eth5   None        0          None          None           None           None
```