



10GbE PCI NIC

Installation Guide

For use with V10K Appliances

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Installing the 10GbE PCI NIC

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Installation Guide | 10GbE PCI NIC | v8.4.x

Expansion cards and expansion-card risers (optional)



Note

A missing or an unsupported expansion-card riser logs an SEL event. It does not prevent your system from powering on and no BIOS POST message or F1/F2 pause is displayed.

Expansion card installation guidelines

Your system supports Generation 1, Generation 2, and Generation 3 cards. The following table provides riser configurations for R430 systems:

| Expansion-card riser | PCIe slot on the expansion-card riser | Processor connection | Height | Length | Link width | Slot width |
|----------------------|---------------------------------------|----------------------|-------------|-------------|------------|------------|
| PCIE_G3_X16 | 1 | Processor 1 | Half Height | Half Length | x16 | x16 |
| | 2 | Processor 1 | Half Height | Half Length | x16 | x16 |
| PCIE_G3_X8 | 1 | Processor 1 | Full Height | Half Length | x8 | x16 |
| | 2 | Processor 1 | Half Height | Half Height | x8 | x16 |

**Note**

The PCIE_G3_X8 and PCIE_G3_X16 are the two different types of risers supported on R430 systems. You can install an expansion card on the system board only using expansion-card riser.

**Note**

The expansion cards are not hot-swappable.

The following table provides a guide for installing expansion cards to ensure proper cooling and mechanical fit. The expansion cards with the highest priority must be installed first using the slot priority indicated. All other expansion cards must be installed in card priority and slot priority order.

| Card priority | Card type | Slot priority | Maximum allowed |
|---------------|--|-----------------|-----------------|
| 1 | RAID Integrated Storage | Integrated Slot | 1 |
| | RAID External Storage | 2, 1 | 1 |
| 2 | Infiniband single Port/Dual (Mellanox) | 2, 1 | 2 |
| 3 | 40 Gb NICs | 2, 1 | 2 |
| 4 | 10 Gb NICs | 2, 1 | 2 |
| 5 | FC8 HBA | 2, 1 | 2 |
| 6 | 1 Gb NICs | 2, 1 | 2 |
| 7 | 12 GB SAS HBA | 2, 1 | 2 |
| | HBA330 | Integrated Slot | 1 |

| Card priority | Card type | Slot priority | Maximum allowed |
|---------------|---|-----------------|-----------------|
| 1 | RAID Integrated Storage | Integrated Slot | 1 |
| | RAID External Storage Low Profile | 2 | 1 |
| | RAID External Storage Full Height | 1 | 1 |
| 2 | Infiniband Single Port/Dual Port (Mellanox) | 2 | 1 |

| Card priority | Card type | Slot priority | Maximum allowed |
|---------------|-----------------------------|-----------------|-----------------|
| 3 | 40 Gb NICs (Low profile) | 2 | 1 |
| | 40 Gb NICs (Full height) | 1 | 1 |
| 4 | 10 Gb NICs (Low profile) | 2 | 1 |
| | 10 Gb NICs (Full height) | 1 | 1 |
| 5 | FC8 HBA (Low profile) | 2 | 1 |
| | FC8 HBA (Full height) | 1 | 1 |
| 6 | 1 Gb NICs (Low profile) | 2 | 1 |
| | 1 Gb NICs (Full height) | 1 | 1 |
| 7 | 12 GB SAS HBA (Low profile) | 2 | 1 |
| | 12 GB SAS HBA (Full height) | 1 | 1 |
| 8 | Non-RAID HBA330 | Integrated Slot | 1 |

Removing the expansion-card riser

Prerequisites



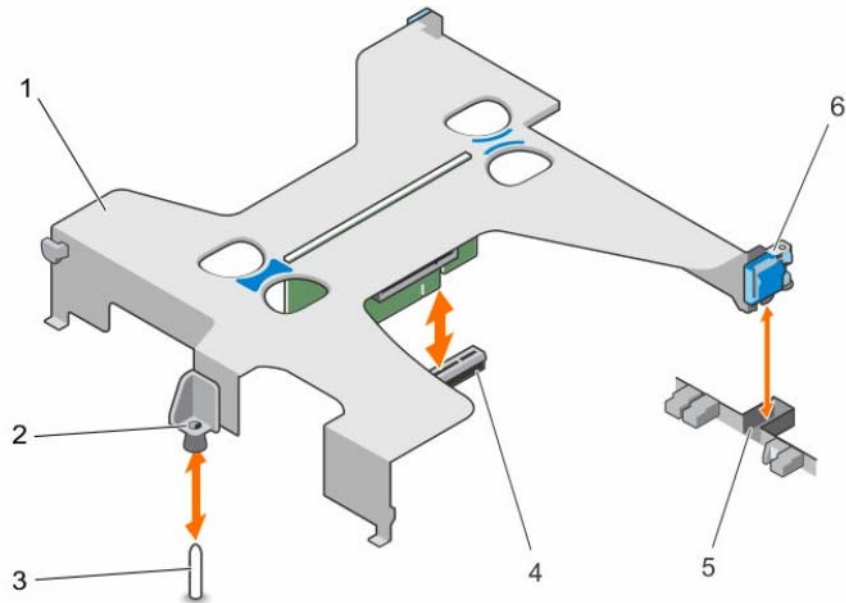
Warning

Many repairs may only be done by a certified service technician. You should only perform troubleshooting and simple repairs as authorized in your product documentation, or as directed by the online or telephone service and support team. Damage due to servicing that is not authorized by Dell is not covered by your warranty. Read and follow the safety instructions that came with the product.

Ensure that you read the [Safety instructions](#).

Steps

Holding the touch points, lift the expansion-card riser from the riser connector on the system board.



1. expansion-card riser
2. guide on the expansion-card riser
3. guide pin on the system board
4. expansion-riser connector on the system board
5. slot on the chassis
6. expansion-card latch

Next steps

1. Install the expansion card, if applicable.
2. Install the expansion-card riser.

Related Tasks

[Removing an expansion-card](#)

[Installing an expansion-card](#)

[Installing the expansion-card riser](#)

Installing the expansion-card riser

Prerequisites



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Steps

1. If applicable, reinstall the expansion card into the expansion-card riser.
2. Align the following:
 - a. guide on the expansion-card riser with the guide pin on the system board.
 - b. expansion-card riser latch with the slot on the chassis.
3. Lower the expansion-card riser until the expansion-card riser is fully seated in the connector.

Related Tasks

[Removing an expansion-card](#)

[Installing an expansion-card](#)

Removing an expansion-card

Prerequisites



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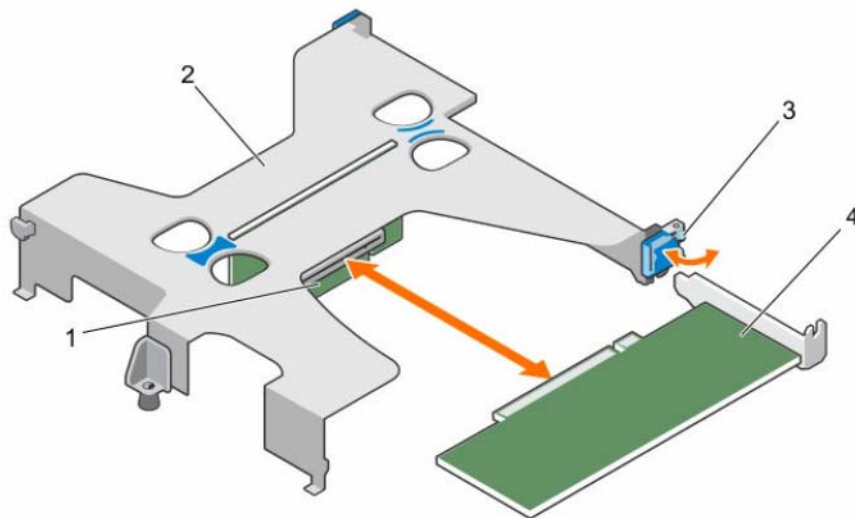
Steps

1. Disconnect any cables connected to the expansion card or expansion-card riser.
2. If installed, remove the expansion-card riser.
3. Hold the expansion card by its edges and remove it from the expansion-card connector on the riser.
4. If you are removing the card permanently, install a metal filler bracket over the empty expansion slot and close the expansion-card latch.



Note

You must install a filler bracket over an empty expansion slot to maintain Federal Communications Commission (FCC) certification of the system. The brackets also keep dust and dirt out of the system and aid in proper cooling and airflow inside the system.



1. expansion-card connector on the riser
2. expansion-card riser
3. expansion-card latch
4. expansion card

Related Tasks

[Removing the expansion-card riser](#)

[Installing the expansion-card riser](#)

Installing an expansion-card

Prerequisites



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Steps

1. Locate the expansion-card connector on the riser.
2. Holding the card by its edges, position the card so that the card-edge connector aligns with the expansion-card connector.
3. Align the expansion-card bracket with the hooks on the chassis.
4. Insert the card-edge connector into the expansion-card connector until the card is fully seated.



Note

Ensure that the expansion card is properly seated along the chassis, so that expansion-card latch can be closed.

5. If applicable, connect cables to the expansion card.
6. Install the expansion card-riser on the system board.

Related Tasks

[Removing the expansion-card riser](#)

[Installing the expansion-card riser](#)

Safety instructions



Warning

Whenever you need to lift the system, get others to assist you. To avoid injury, do not attempt to lift the system by yourself.



Warning

Opening or removing the system cover while the system is powered on may expose you to a risk of electric shock.



Warning

Do not operate the system without the cover for a duration exceeding five minutes.



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Note

It is recommended that you always use a static mat and static strap while working on components inside the system.



Note

To ensure proper operation and cooling, all bays in the system must be populated at all times with either a module or with a blank.
