



# Installing the Cisco UCS X440p PCIe Node

This chapter includes the following topics:

- [Installation Guides and Limitations, on page 1](#)
- [PCIe Node Companion Module, on page 3](#)
- [Replacing the Cisco UCS X440p PCIe Node, on page 4](#)
- [PCIe Node Configuration, on page 8](#)

## Installation Guides and Limitations

Be aware of the following guidelines and limitations when installing the Cisco UCS X440p PCIe node.

- The Cisco UCS X440p PCIe node is supported in the Cisco UCS X9508 chassis only. Do not attempt to install the PCIe node in any other UCS server chassis.
- The companion compute node host power should be off before attempting any removal or insertion procedures. Hot removal or insertion of the PCIe node while the host is on is not supported.
- Each PCIe node must be paired with an X-Series compute node, and therefore, has specific configurations based on the type of compute node.

For single-slot compute nodes (for example, the Cisco UCS X210c M7), either of the following configurations are supported. Be aware of these configurations, especially when removing and installing single-slot compute nodes and PCIe nodes in your deployment.

Figure 1: Supported Configuration, Single-Slot Compute Node in Initial Slot with PCIe Nodes

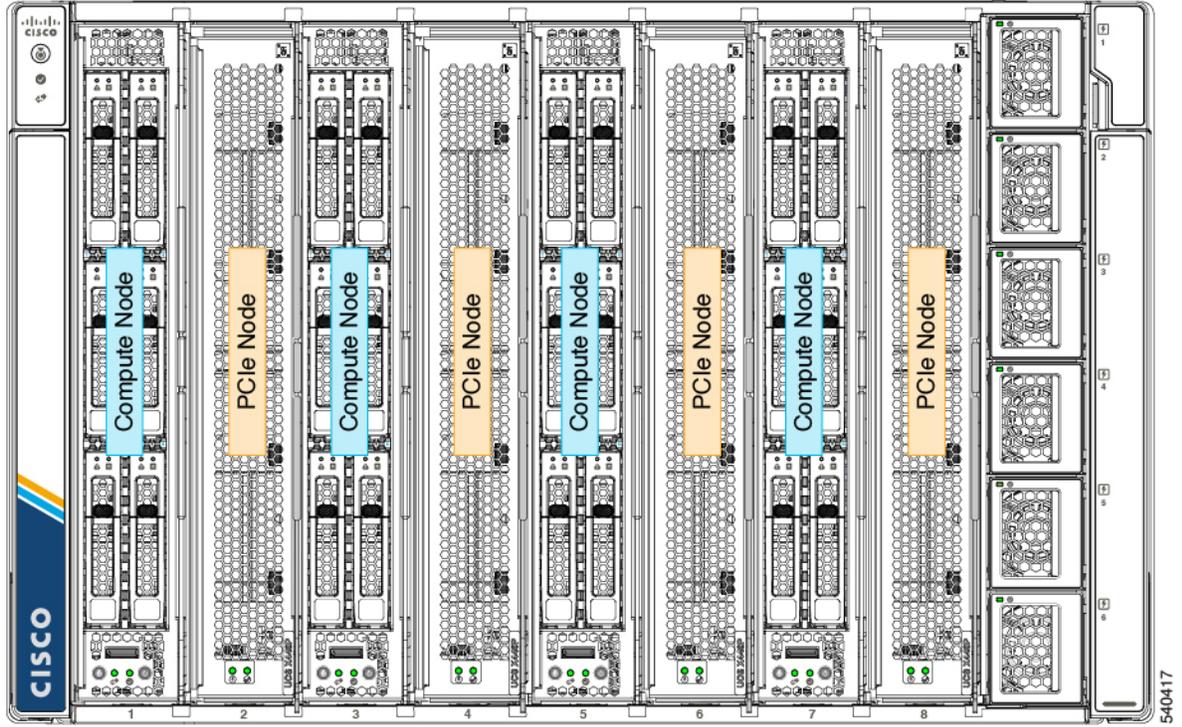
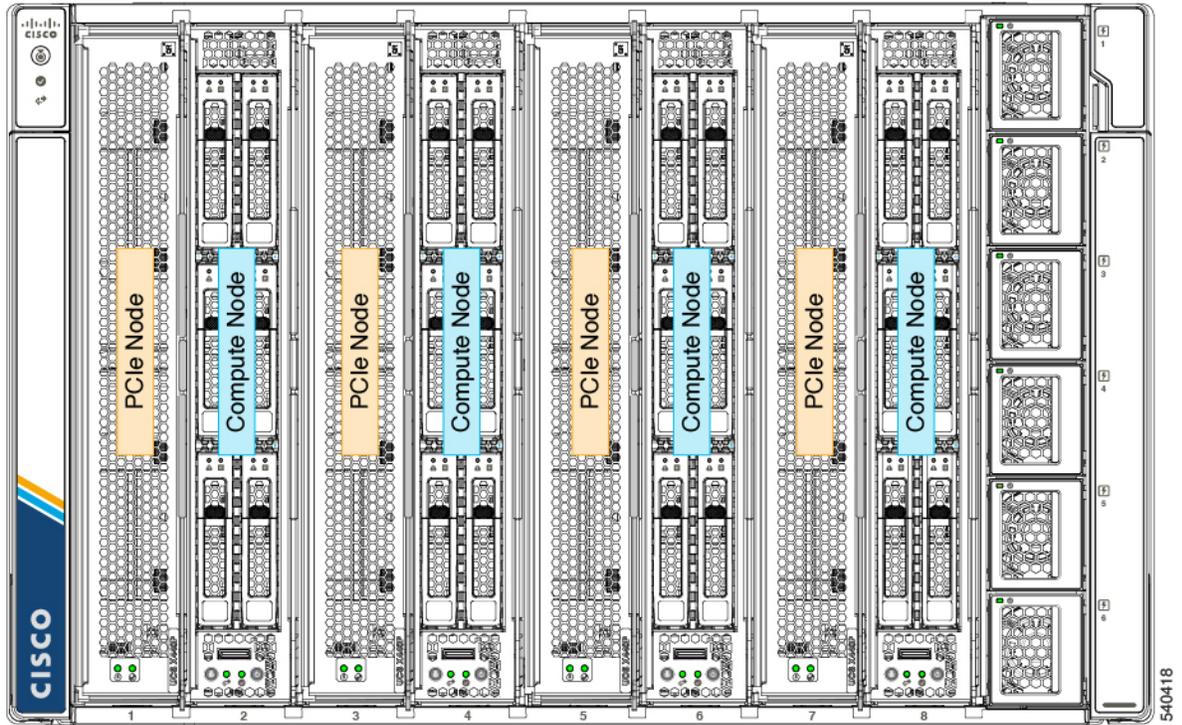
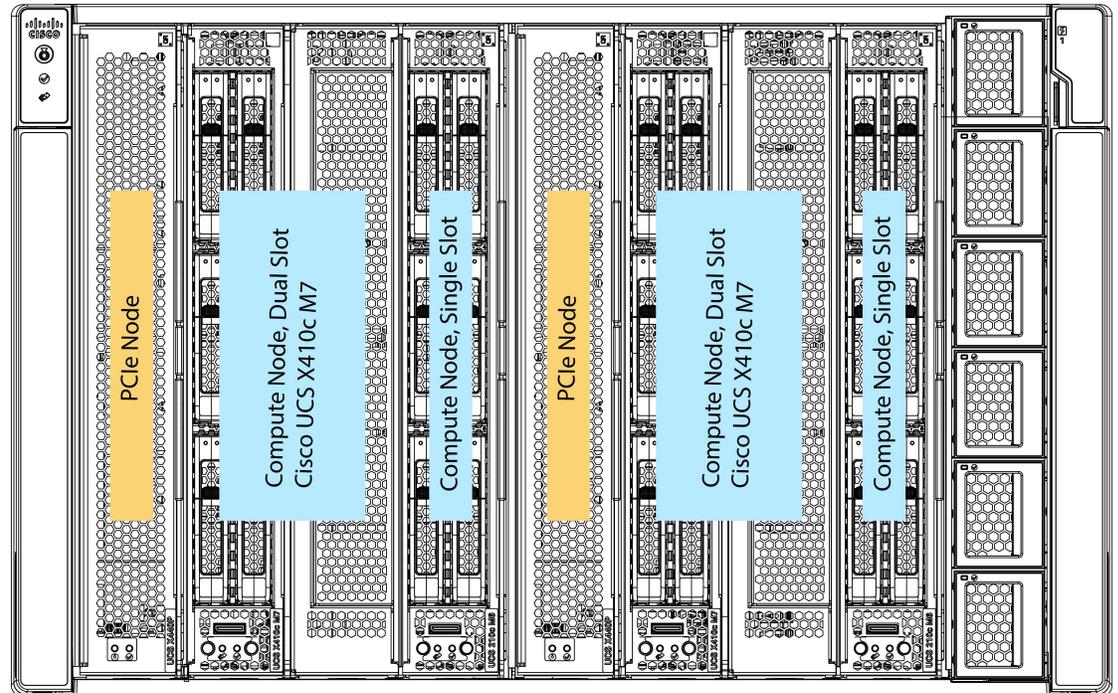


Figure 2: Supported Configuration, PCIe Node in Initial Slot with Single-Slot Compute Nodes



For a dual-slot compute node (for example, the Cisco UCS X410c M7), only one configuration is supported as shown. Be aware of this configuration, especially when removing and installing dual-slot compute nodes and PCIe nodes in your deployment.

**Figure 3: Supported Configuration, PCIe Nodes with Dual-Slot Compute Nodes**



481370

In the supported configuration for dual-slot compute nodes:

- PCIe nodes can be installed in slots 1 and 5 only
- Dual-slot compute nodes can be installed in slots 2/3 and 6/7.
- Slots 4 and 8 can contain single-slot compute nodes (as shown) or compute node blank filler panels. When slots 4 and 8 contain single-slot compute nodes, those compute nodes are not paired with the PCIe node (the dual-slot compute nodes are), so the single-slot compute nodes do not receive GPU acceleration or offload whereas the dual-slot compute nodes do.

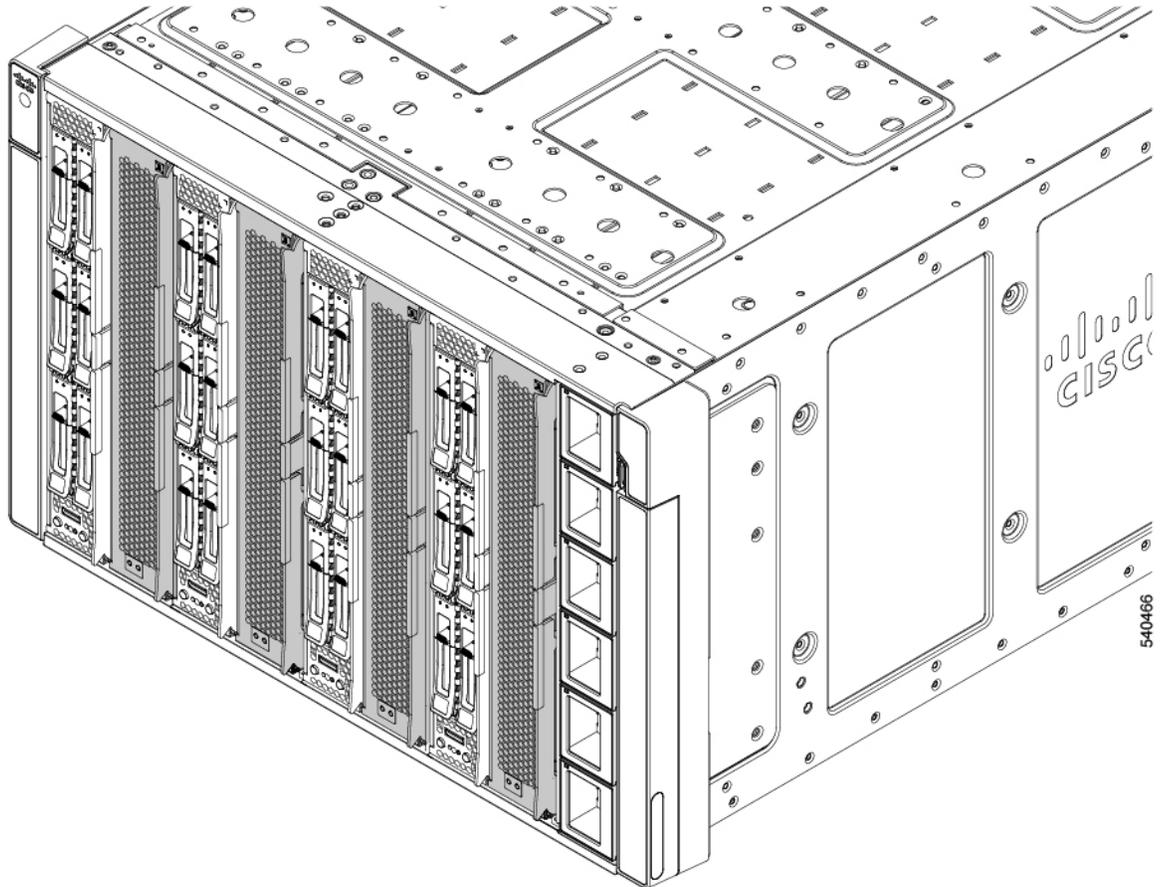
## PCIe Node Companion Module

The PCIe node must be installed in pairs with a compute node. The module and the node work together to provide compute and GPU processing acceleration.

When you install, replace, or upgrade the PCIe node, make sure that you install it next to a supported companion module, such as a Cisco UCS X210c compute node.



**Note** The Cisco X-Fabric solution does not limit or restrict slot usage when PCIe nodes are not required. Compute nodes can be installed in any slot without restriction where PCIe nodes are not used.



## Replacing the Cisco UCS X440p PCIe Node

The Cisco UCS X440p PCIe Node is tool-less, field replaceable hardware. You can install or remove the node through node's integrated ejectors.



**Caution** Hot swap of the PCIe node is not supported while the host is on. The paired compute node must be powered down first before removing or inserting the PCIe node.

To replace the PCIe node, use the following tasks:

- [Installation Guides and Limitations, on page 1.](#)
- [Removing the PCIe Node, on page 5](#)
- [Installing the PCIe Node, on page 6](#)

## Removing the PCIe Node

Use this task to remove the PCIe node from the chassis.

### Before you begin

You can remove each PCIe node directly from the front of the chassis by using the node's ejectors. You do not need any tools to remove the node.



---

**Note** The PCIe node can be heavy. Use your other hand to support the module while you are removing it.

---



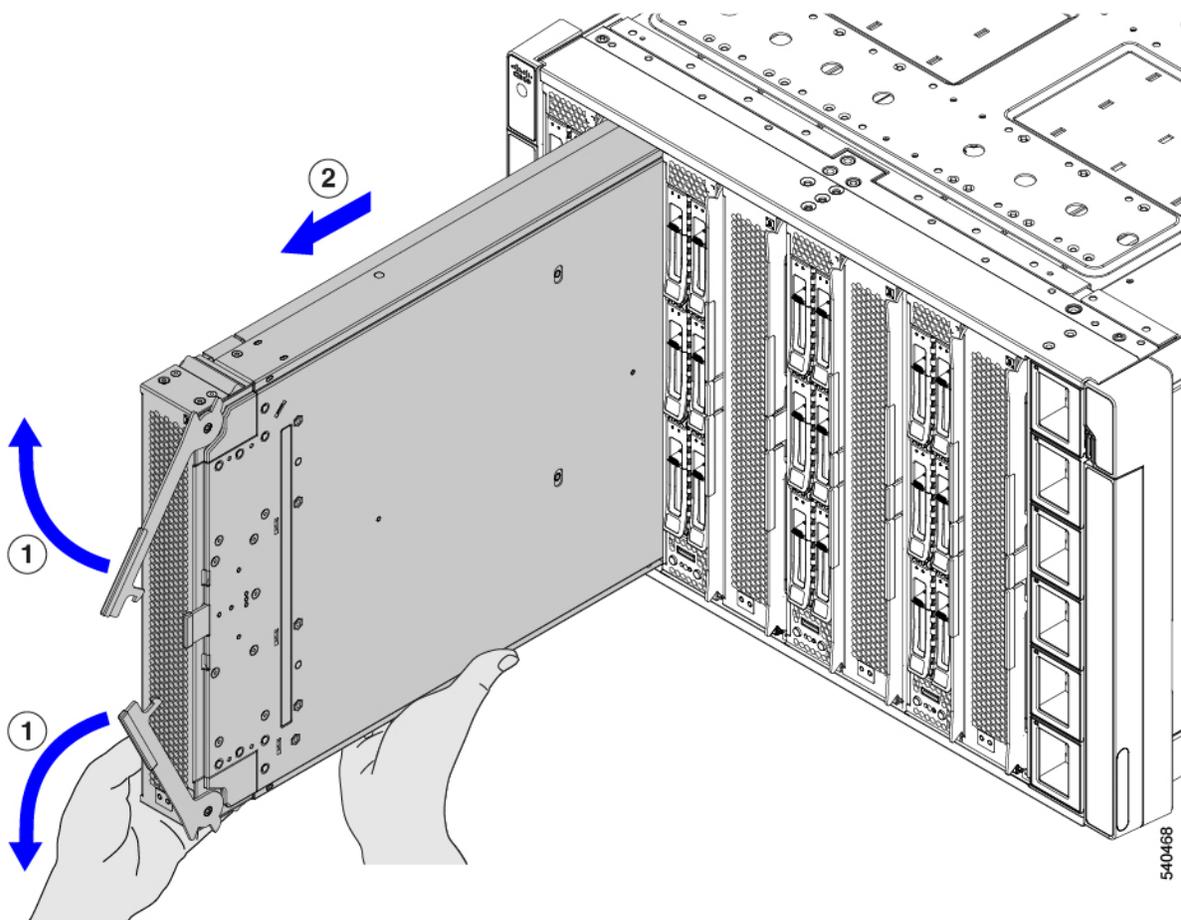
---

**Caution** The Cisco UCS X440p PCIe node itself is hot swappable, but the paired compute node must be powered down first before hot swapping the PCIe node.

---

### Procedure

- 
- Step 1** If you have not already done so, use Cisco management software (for example, Cisco IMM) to power down the compute node paired with the PCIe node.
- Step 2** After the paired compute node is completely powered off, push the PCIe node's ejector button between the two ejectors to disconnect the ejectors from the sheet metal.
- When you press the ejector button, the ejector handles will pop up slightly from the face of the node.
- Step 3** Gently swing each ejector vertically to disconnect the PCIe node from the server.
- Step 4** Using one hand to support the PCIe node, pull the node towards you to slide it out of the server chassis.



### What to do next

Reinsert the PCIe node. See [Installing the PCIe Node, on page 6](#).

## Installing the PCIe Node

Use this task to install the PCIe node.



**Caution** Before inserting a PCIe node, make sure that its paired compute node is powered off.

### Before you begin

The PCIe node is a tools-free module that you install and secure to the chassis through ejectors.

## Procedure

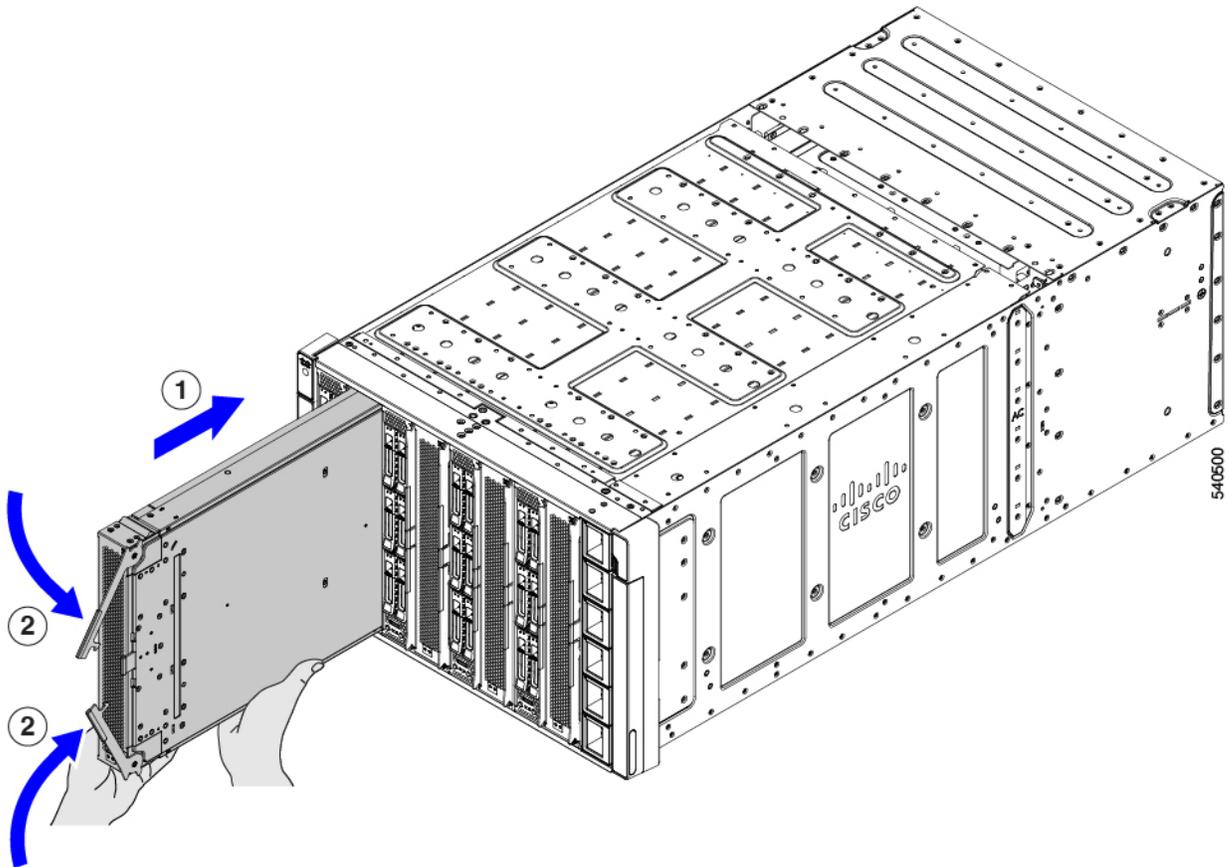
**Step 1** Orient and align the PCIe node so that the ejectors are on the right vertical side of the slot.

**Step 2** Using one hand to support the PCIe node, hold the node level and slide it into the chassis slot.

When the node is almost all the way in the slot, you might feel some resistance. This resistance is normal. It comes from the connector on the rear of the module meeting its socket on the inside of the chassis.

**Step 3** Press on both ends of the faceplate to seat the module, then push the ejectors inward to secure the node in the slot.

The node is fully seated when the ejectors click into place and are flush with the node's faceplate.



**Step 4** Using Cisco management software, such as Cisco Intersight Managed Mode (IMM), power on the PCIe node's paired compute node.

**Step 5** After the paired compute node is completely powered on, use Cisco's management software, such as Cisco Intersight Managed Mode (IMM), to rediscover the PCIe node.

# PCIe Node Configuration

The Cisco UCS X440p PCIe Node can be configured and managed using the Cisco Intersight management platform in Intersight Managed Mode (Cisco Intersight Managed Mode). For details, see the *Cisco Intersight Managed Mode Configuration Guide*, which is available at: [Cisco Intersight Managed Mode Configuration Guide](#).