Recycling Server Components

This chapter contains the following topics:

Server Recycling and E-Waste

This chapter documents the procedures to disassemble key server components for recycling and e-waste. When recycling your Cisco UCS hardware, always make sure to follow local e-waste and recycling regulations.

Note **For Recyclers Only!** The procedures in this chapter are not standard field-service options. These procedures are for recyclers who will be reclaiming the electronics for proper disposal to comply with local eco design and e-waste regulations. For standard field-service procedures.

Caution The server is heavy! Do not attempt to unrack or lift the server by yourself. Use a server lift, scissors jack, or some other mechanical tool to lift and support the server while inserting, moving, or removing it.

The server has various components that can be recycled. When recycling the server and its components, always comply with your local laws governing recycling and e-waste.

Warning The procedures in this chapter are destructive and can render the server unusable, so this content is not for standard use or FRU procedures! **These procedures are for recyclers only!**

Removing the Top Cover

The server chassis has a top sheetmetal cover that is secured by two M3xL10.2 mm thumb screws.

Gather a #2 Phillips screwdriver before starting this procedure.
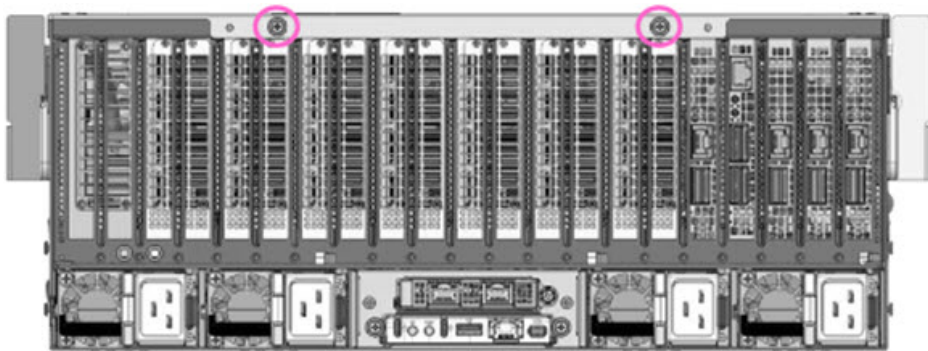
Before you begin

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Warning **For Recyclers Only!** This procedure is not a standard field-service option. This procedure is for recyclers who will be reclaiming the electronics for proper disposal to comply with local eco design and e-waste regulations.

Procedure

Step 1 Using the screwdriver, remove the two thumbscrews.
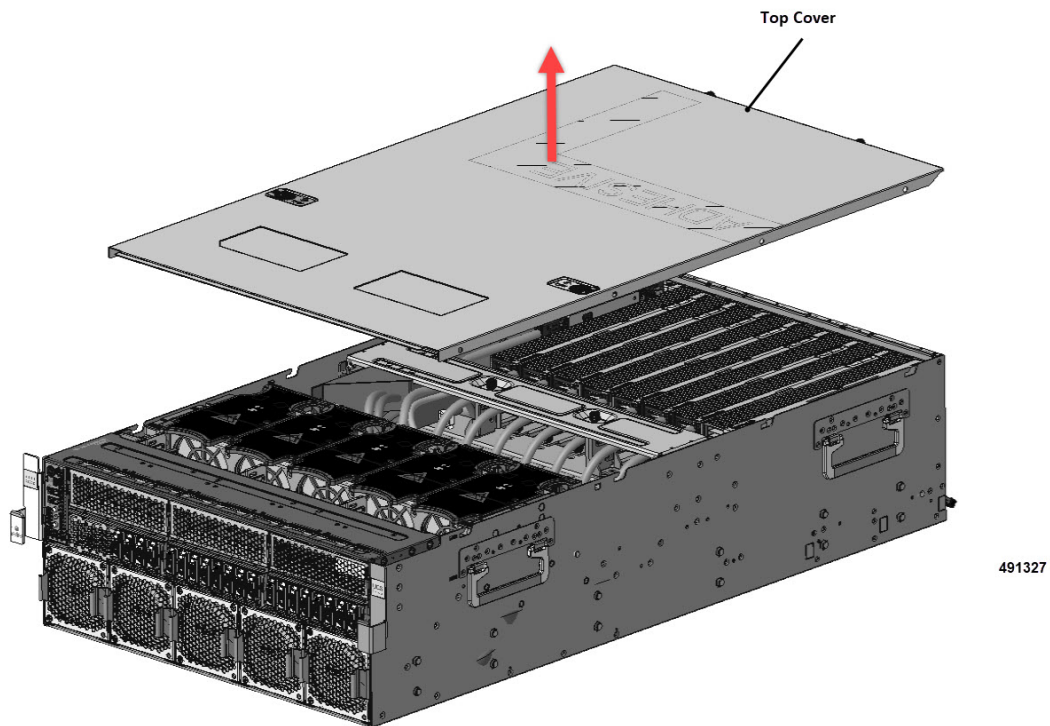
Figure 1: Location of Thumbscrews

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Step 2 Grasp the top cover and slide it forward, then lift up to remove it from the server chassis.

Figure 2: Removing the Top Cover

Top Cover

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What to do next

Continue with your recycling process. See the relevant section.

Recycling the PCIe Card PCBs

The CPU Tray contains multiple PCIe PCBs. Use the following procedure to remove the PCIe cards and recycle their PCBs.

Recycling the PCIe Card PCBs

The server has multiple PCIe cards in the CPU tray. You can use this procedure to remove them for recycling, or as part of the overall procedure to recycle the CPU Tray PCBs.

Regardless of how you will use this procedure, make sure to comply with all recycling and ewaste laws for your locale.
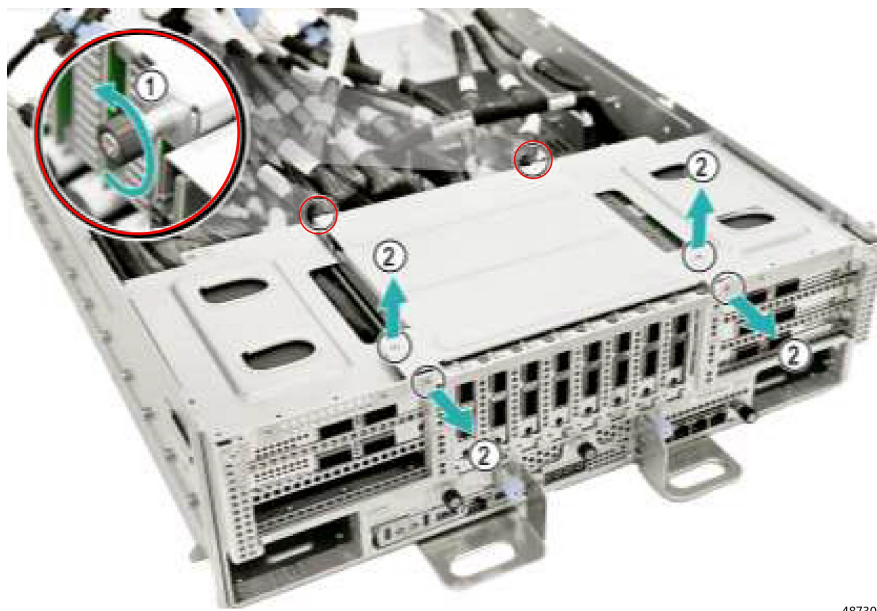
Before you begin

If you have not already done so, remove the CPU Tray's top cover.

You will find it helpful to gather a #2 Phillips screwdriver before attempting this procedure.

Procedure

Step 1 Using a Phillips screwdriver, loosen the two thumbscrews (1) and four screws (2) for the eight CEM baseboards.
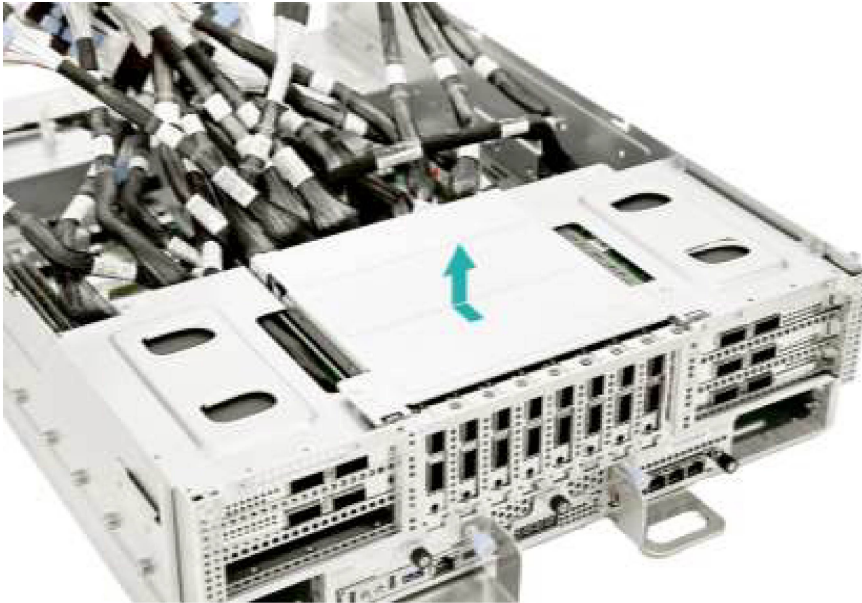
Figure 3: Loosening the Thumbscrew and Screws

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Step 2 Slide the CEM BB access panel back and up to detach it from the server.

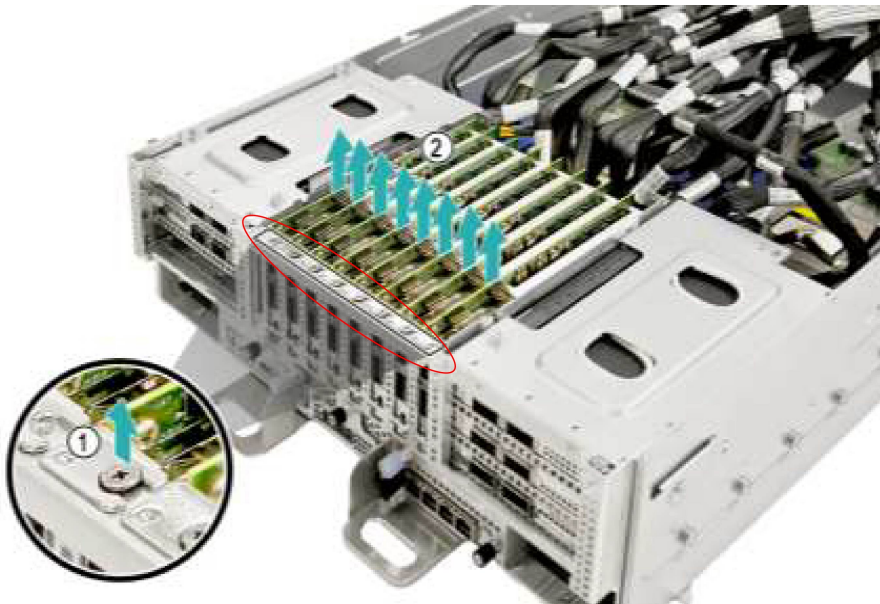*Figure 4: Removing the CEM Base Board Access Panel*

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Step 3   Using a Phillips screwdriver, remove the eight screws (1) and lift each PCIe card out of the server.

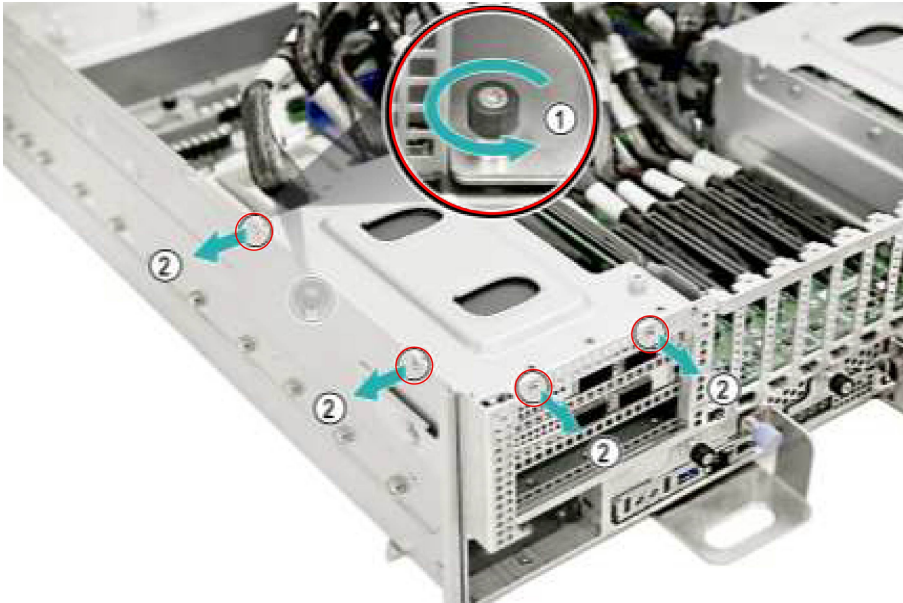*Figure 5: Location of the PCIe Card Screws and Removing the PCIe Cards*

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Step 4   Remove the CEM Riser Assembly.

a)   Using a Phillips screwdriver, loosen the thumbscrew (1) and the four screws.

Figure 6: Loosening the Thumbscrew and Location of the Screws

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b) Grasp the CEM Riser Assembly and lift it out of the server.

Figure 7: Removing the CEM Riser Assembly (Right CEM)

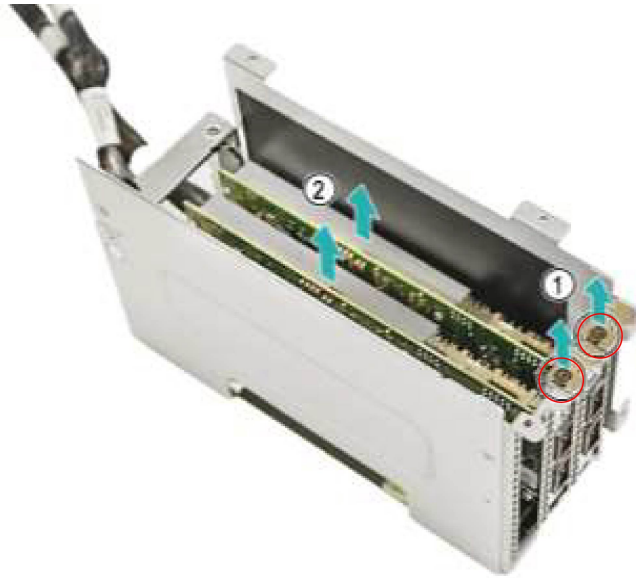

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c) Repeat this step for each CEM Riser Assembly.

Step 5   Remove the PCIe Cards from the CEM Riser.

a) Remove the two or three screws (depending on how many PCIe cards are installed).

b) Detach the PCIe cards from the riser assembly.

Figure 8: Removing PCIe Cards

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c) Repeat this step for each PCIe card.

Step 6 Remove the CEM Riser board.

a) Using a Phillips screwdriver, remove the six screws.

Figure 9: Location of the Screws

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b) Detach the CEM Riser board from the bracket.
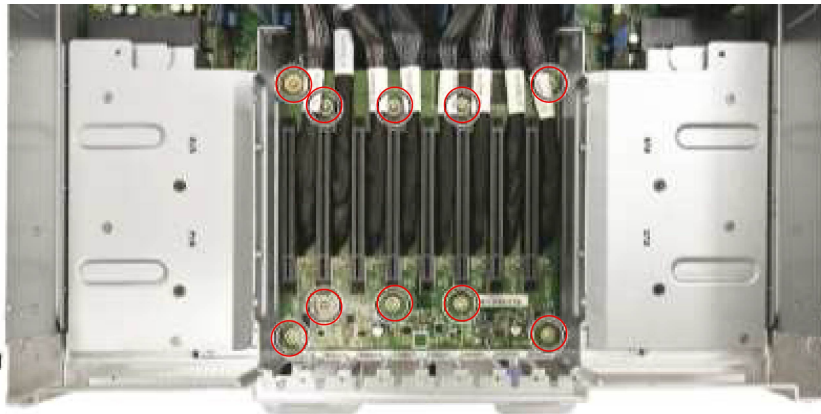
Figure 10: Removing the CEM Riser

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c) Repeat this step for the other CEM Riser board.

Step 7   Remove the CEM 8X base board.

a) Using a screwdriver, remove the ten screws.

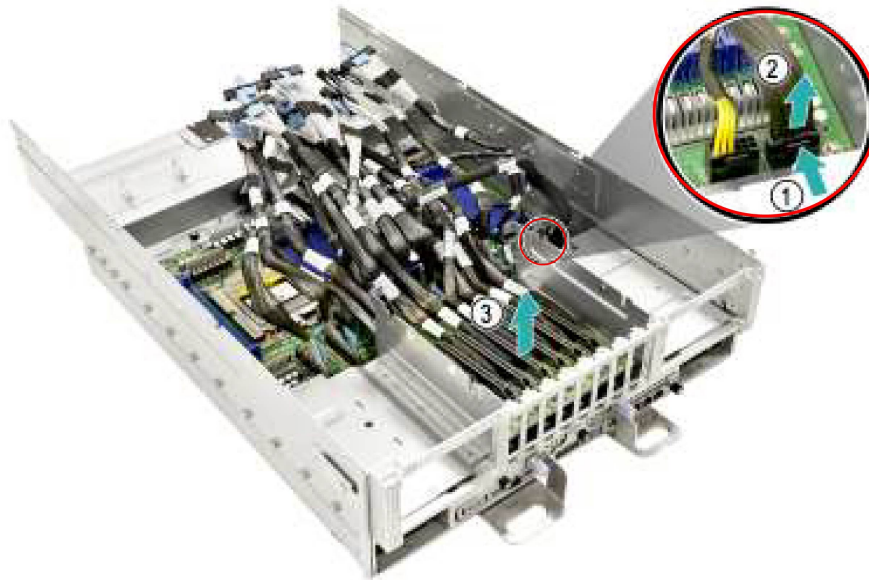*Figure 11: Location of the Screws*

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b) Disconnect the power cord for the CEM 8X base board.
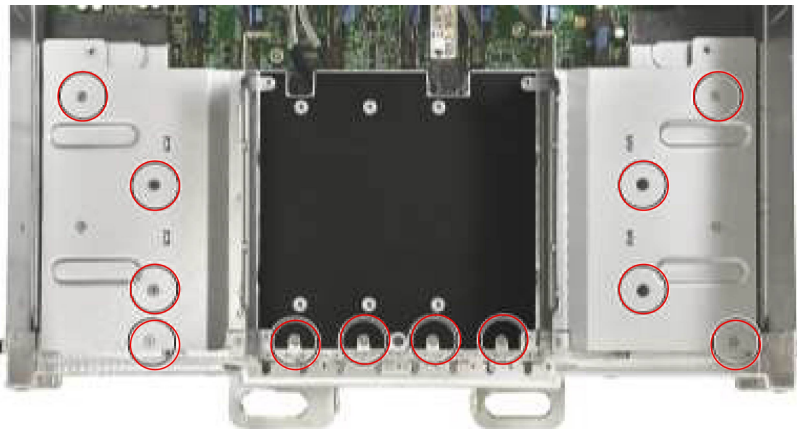
Figure 12: Disconnecting the Power Cord

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Step 8 Remove the CEM Crossbar.
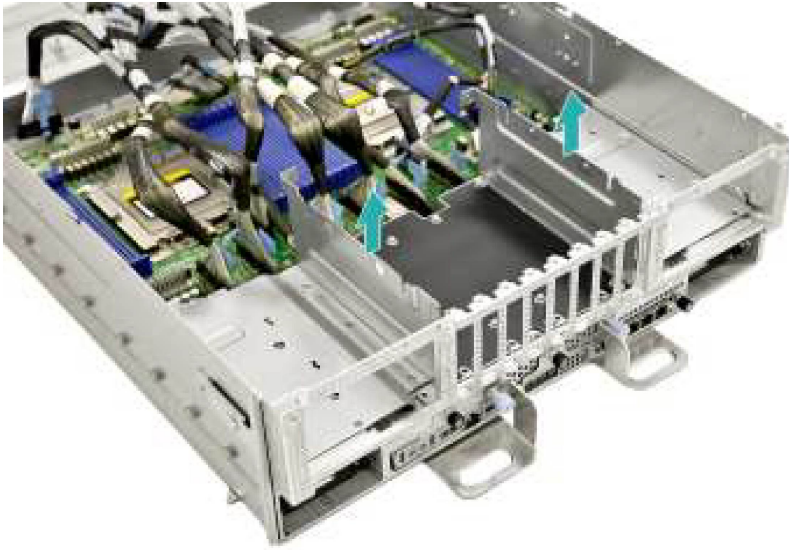
a) Remove the twelve screws.

Figure 13: Location of the Screws

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b) Grasp the CEM Crossbar and lift it up to remove it from the server.
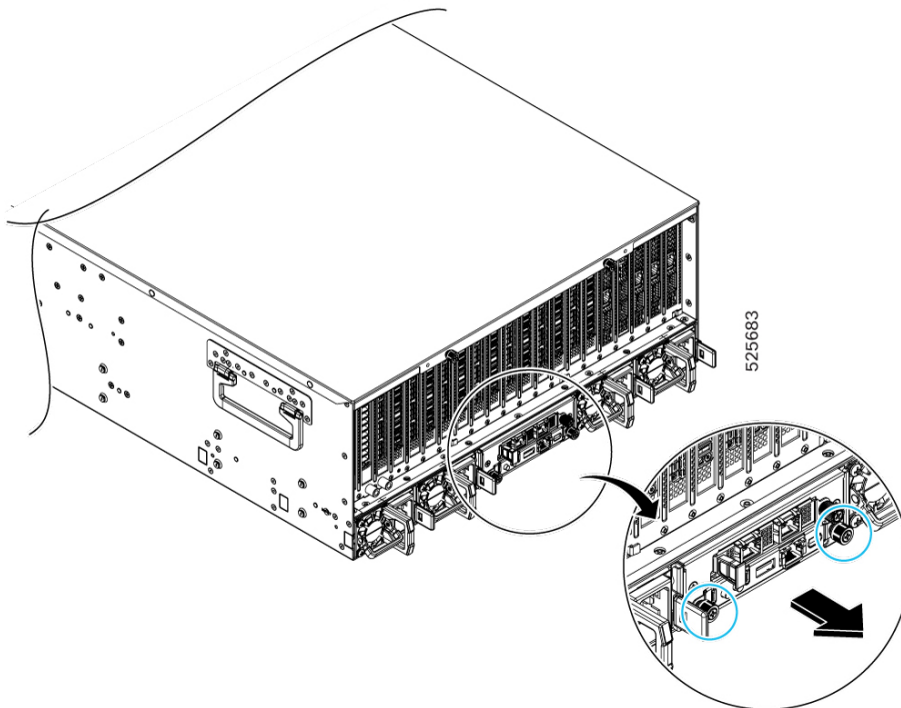
Figure 14: Removing the CEM Crossbar

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Step 9 Remove the DC-SCM Module.

a) Using a Philips screwdriver or your fingers, loosen the thumbscrew.

b) Remove the DC-SCM Module from the server.
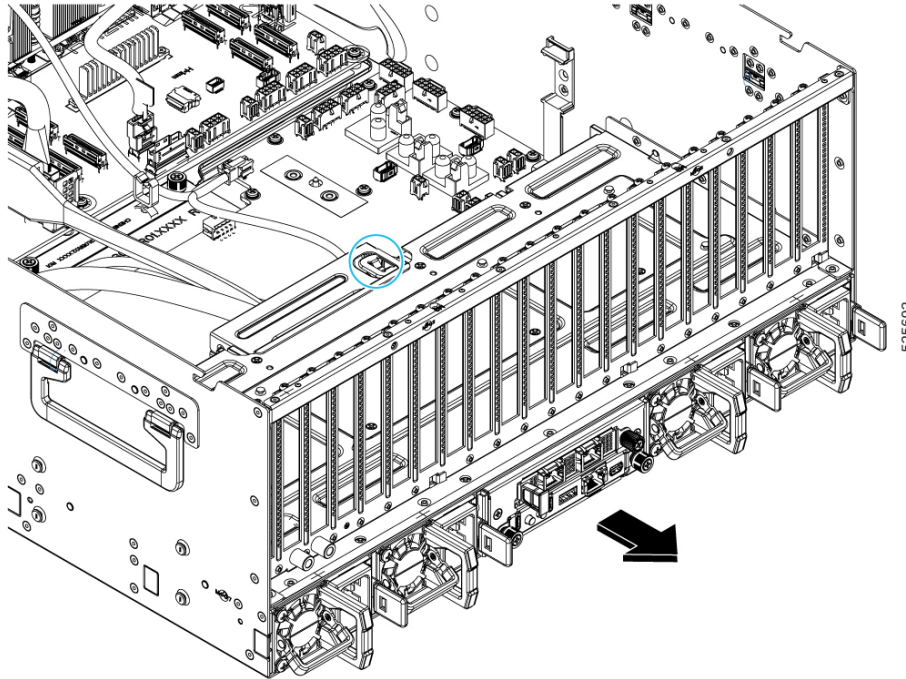
Figure 15: Removing the DSC-SCM Module
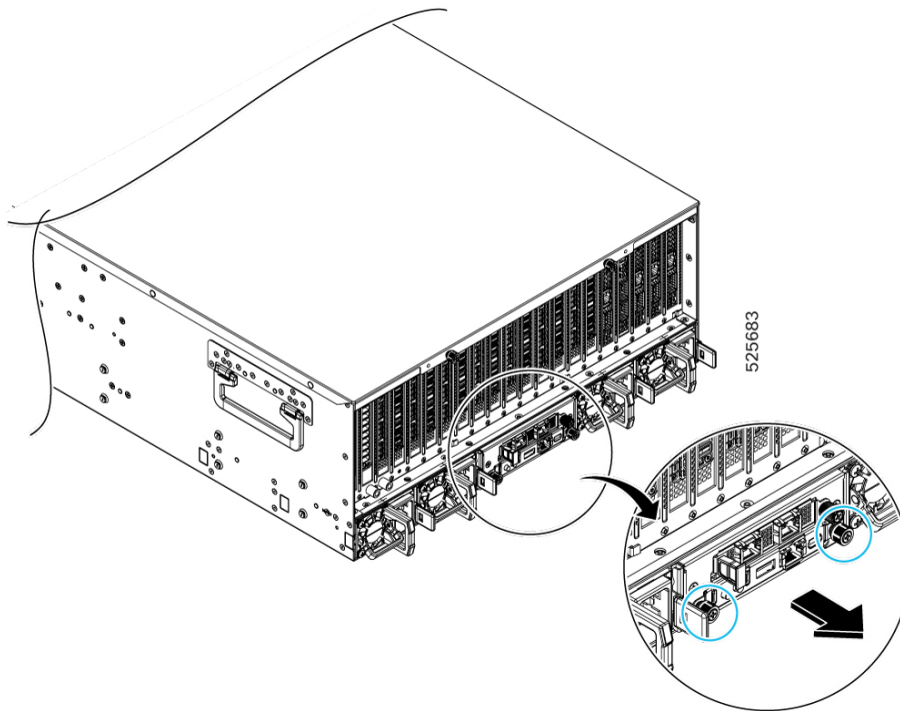

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Step 10   Remove the Dual M.2 Module.

a) Using a Philips screwdriver or your fingers, loosen the thumbscrew.

b) Remove the Dual M.2 Module from the server.

Figure 16: Removing the Dual M.2 Module
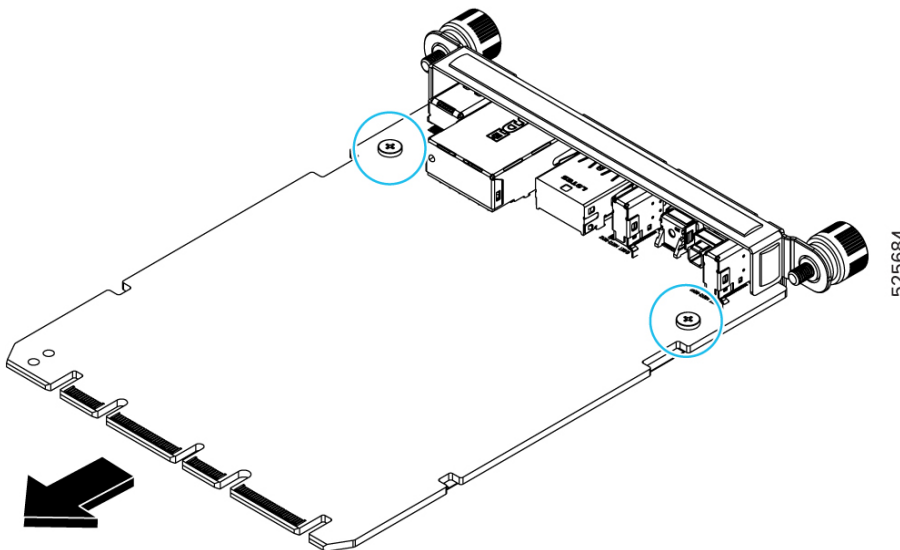

c) (Optional) Using a Phillips screwdriver, loosen the screw.
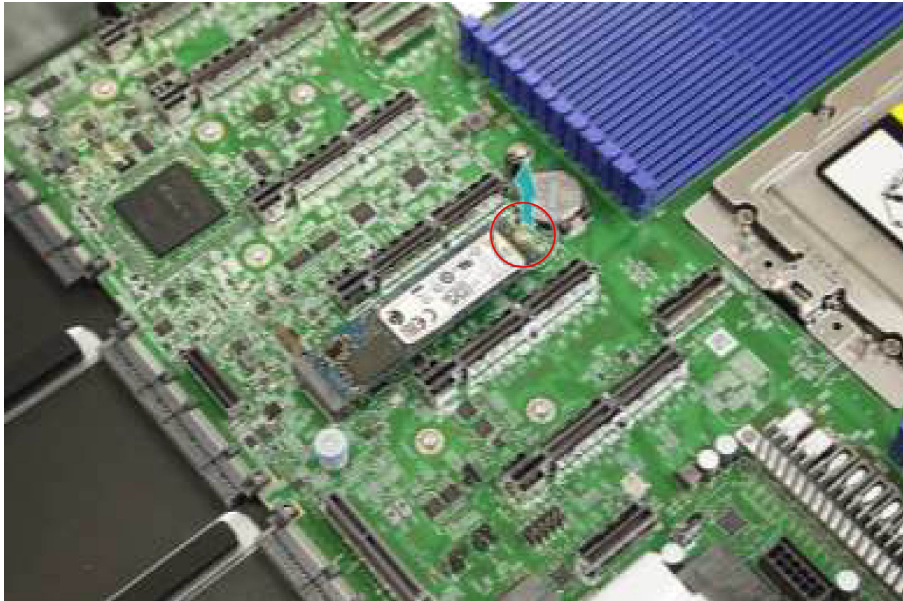
Figure 17: Location of the Retaining Screw

d) Lift the SSD off of the Dual M.2 Module.

Figure 18: Removing the SSD from the M.2 Module

Step 11 (Optional) Remove the SSD on the Mainboard.

a) Using a Phillips screwdriver, loosen the screw.

Figure 19: Location of the Retaining Screw

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b) Lift the SSD module off of the mainboard.
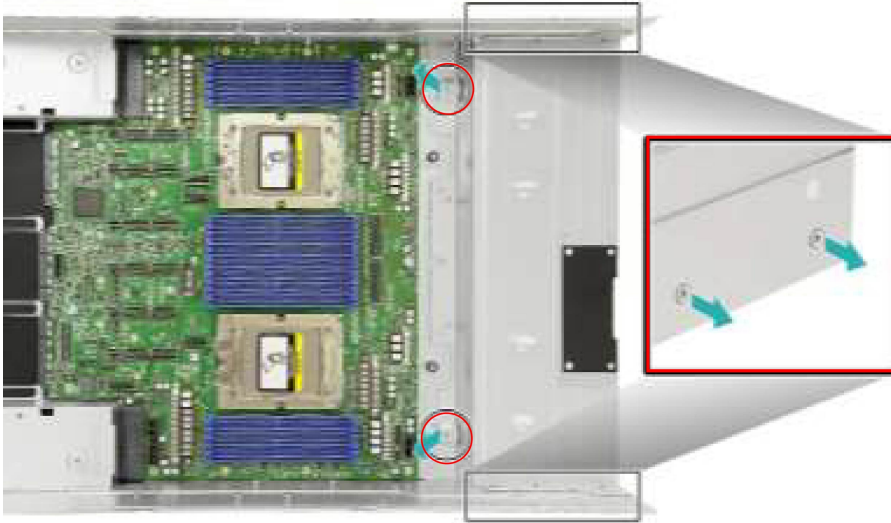
Figure 20: Removing the SSD from the Mainboard

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Step 12   Remove the CPU Support Bracket.

a) Using a screwdriver, remove the six screws.

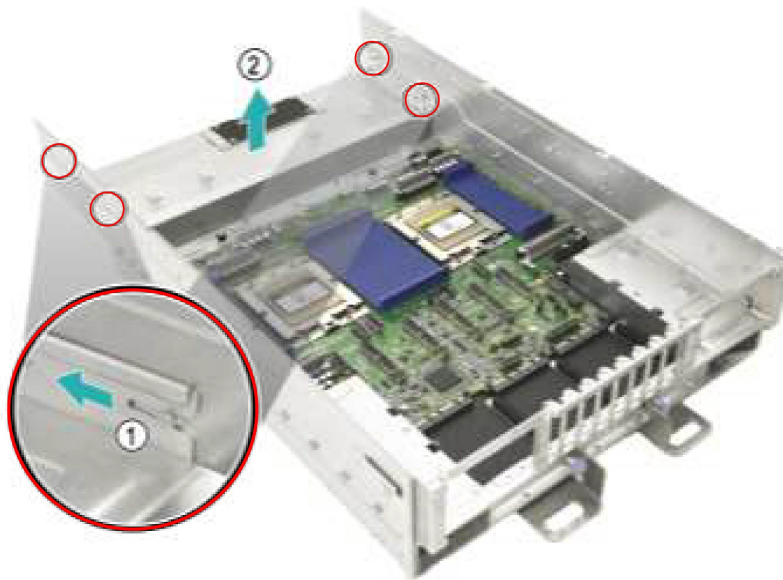Four of the six screws are in pairs on each sidewall.

Figure 21: Location of the Screws

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b) Using a screwdriver, remove the screws and release the catch pins to detach the CPU Support Bracket.

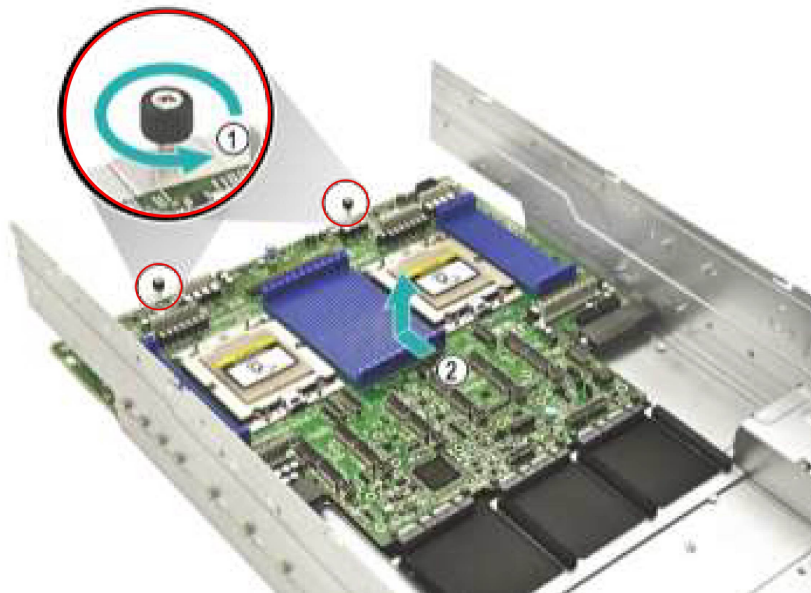*Figure 22: Location of the Screws and Catch Pins*

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Step 13   Remove the mainboard.

a) Using a screwdriver or your fingers, loosen the two thumbscrews and detach the mainboard from the CPU Tray.
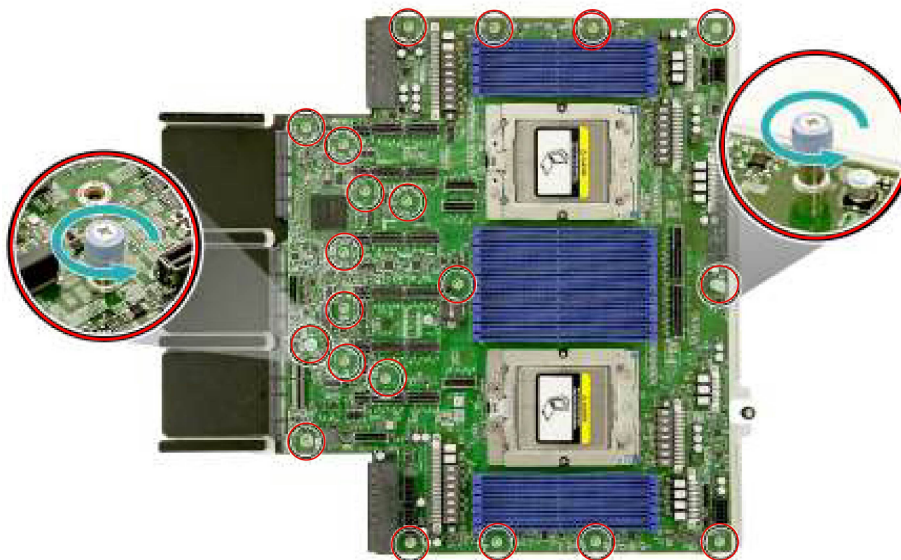
Figure 23: Location of the Screws and Removal of the Mainboard

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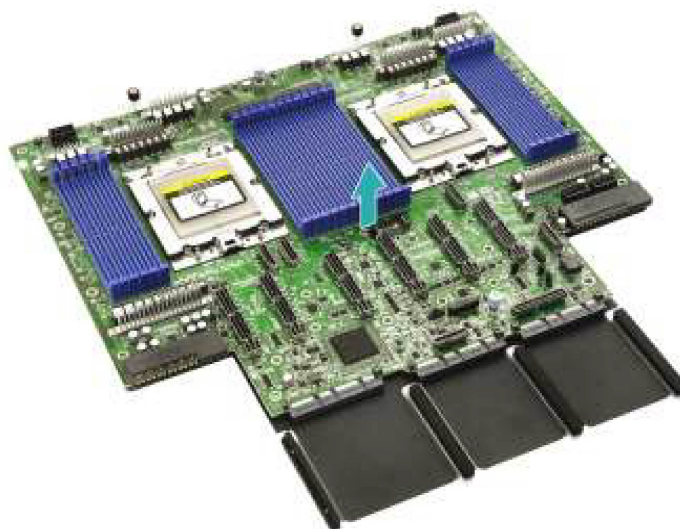b) Using a Phillips screwdriver, loosen the two thumbscrews and remove the twenty screws.

Figure 24: Location of the Thumbscrews and Screws

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c) Grasp the Mainboard and Bracket and separate them.

Figure 25: Detaching the Mainboard from the Bracket

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Step 14 Recycle the Mainboard and all other recyclable parts and components in accordance with your local recycling and ewaste regulations.

Recycling PSUs

The server supports the following power supply (PSUs):

- Four 12V 3000W PSUs (All SKUs)

PSUs are FRUs, which can be removed from the server for proper ewaste and recycling.

SUMMARY STEPS

1. Remove the PSUs from the server chassis.
2. When the PSUs are removed from the chassis, dispose of them in compliance with your local ewaste and recycling regulations.

DETAILED STEPS

Procedure

Step 1 Remove the PSUs from the server chassis.

- To remove the 12V PSUs, go to Removing and Replacing 12V Redundant PSU

Step 2   When the PSUs are removed from the chassis, dispose of them in compliance with your local ewaste and recycling regulations.

Recycling SAS or NVMe SSDs

The server contains data storage in SAS or NVMe SSDs in the front-mounted drives.

Use this procedure to remove the SSDs for recycling.
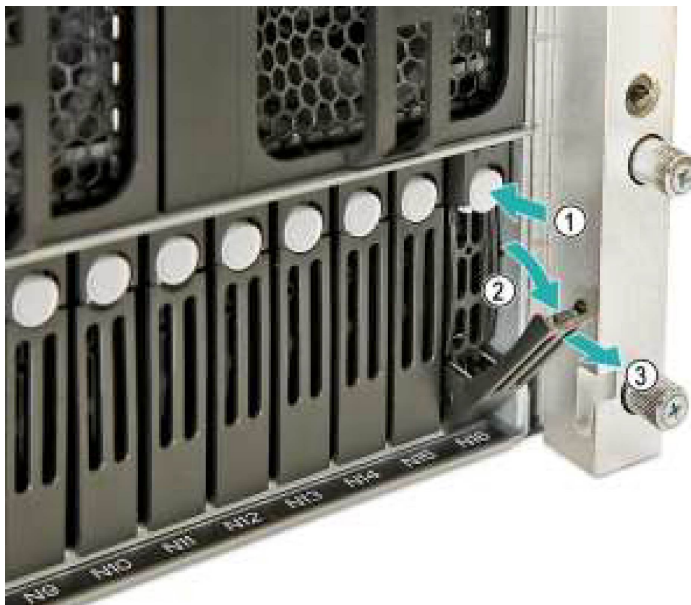
Before you begin

This procedure requires access to the front of the server. If you haven't already removed the front bezel, do so now.

For this procedure, gather a #2 Phillips screwdriver.

Procedure

Step 1   With the front bezel removed, remove the SAS/NVMe SSD carrier from the server.
a)   Push the drive carrier button to disengage the carrier assembly from the server chassis.
b)   Grasp the drive carrier bezel and pull it outward.
c)   Gently pull the drive carrier assembly out of the server.

Figure 26: Removing an SSD
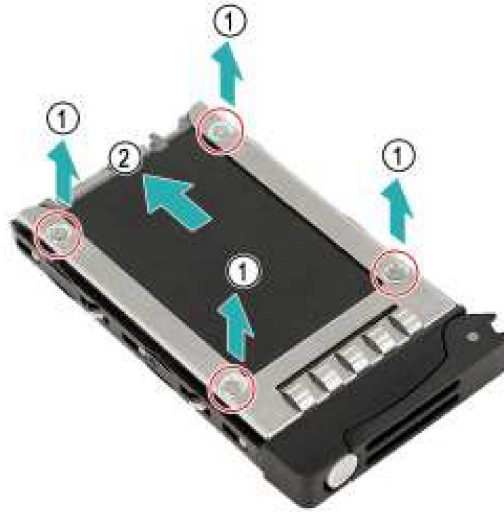

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Step 2   Remove the SAS/NVMe drive from the drive carrier assembly.

    a) Using a Phillips screwdriver, remove the four screws.

    b) Remove the SAS/NVMe drive from the carrier.

Figure 27: Location of the Screws and Removing the SSD from the Carrier

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Step 3   Recycle the SSD and carrier assembly in compliance with your local ewaste and recycling regulations.