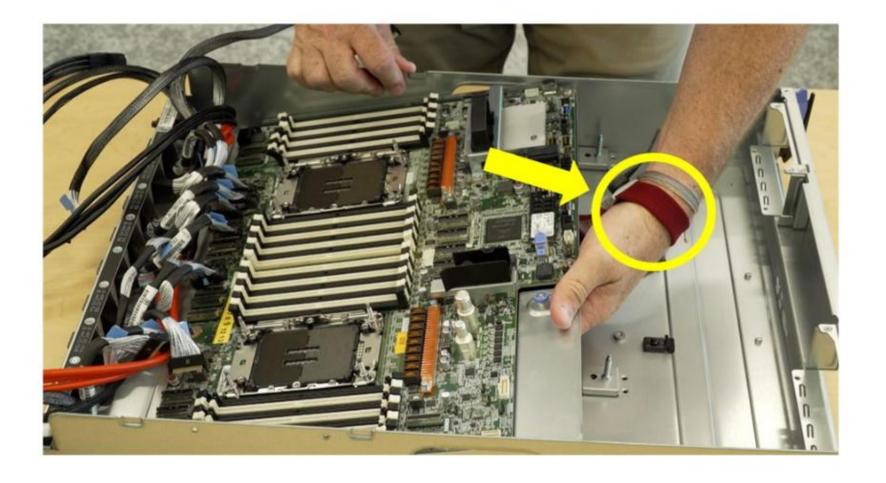
# Hardware replacement tips

Part replacement highlights

# **ESD** wrist strap

The GPUs, processor, and system board are extremely sensitive to ESD. Make sure you wear an ESD wrist strap when replacing any components in the system.





## Gap pad and putty pad replacement guidelines

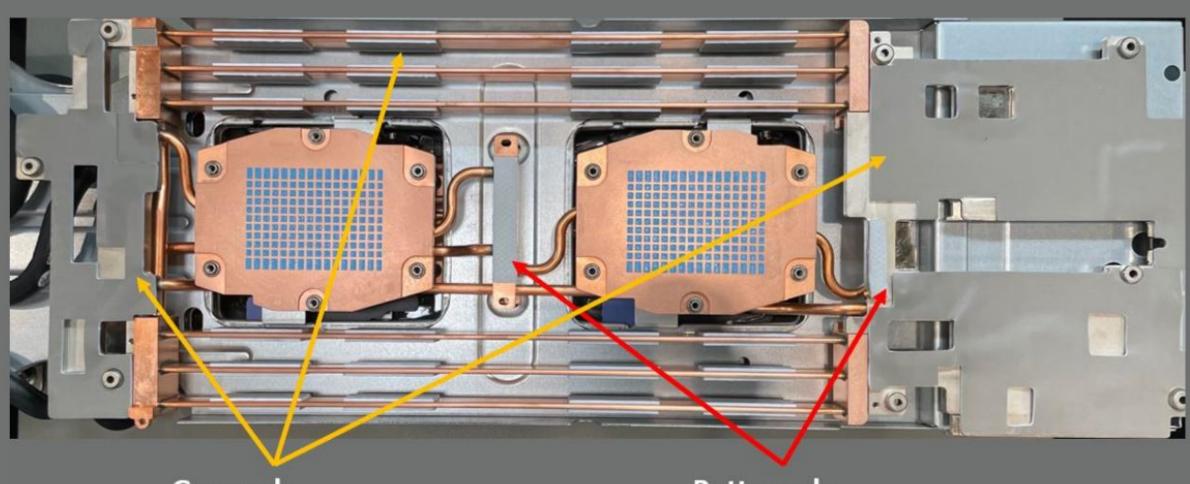
Many ThinkSystem server parts are covered with gap pads or putty pads for thermal enhancement purposes. When replacing these parts, check the gap pads and replace any that are damaged or missing. Putty pads are fragile and can be easily damaged. Servicers should replace all putty pads when replacing server components.

When servicing the SD series and replacing parts that require the removal of the water loop – for example, a processor or power distribution board – servicers should order the water loop service kit. This kit includes two water loop shipping brackets and a consumption pad kit. When replacing other components – for example, an M.2 drive assembly, SSD drive, or PCIe adapter – servicers should order the putty pad kit.

For complete gap pad location information, refer to the Gap pad/Putty pad identification and location section in the <u>Hardware Maintenance Guide</u>. (Click <u>HERE</u> to see examples of putty pads in the node.)





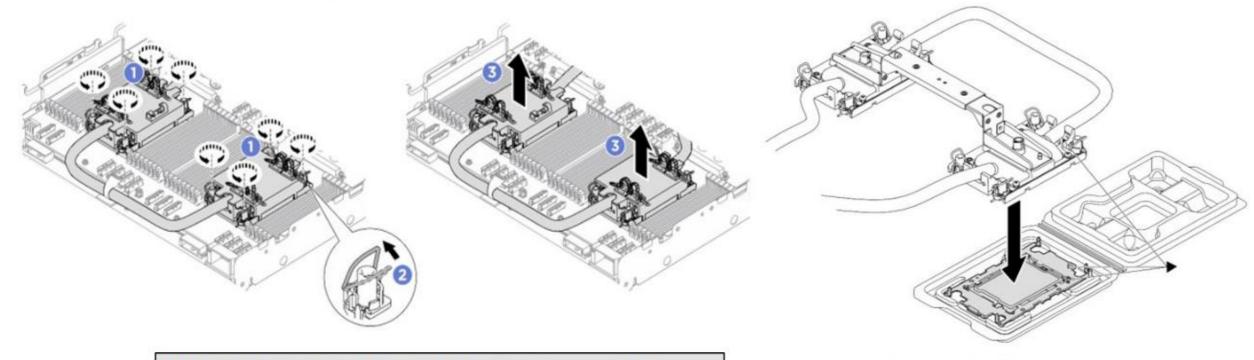


Gap pads

**Putty pads** 

# Replacing a DWCM

Replacement procedures for a DWCM vary between different processor types. The Intel-based server requires a Torx T30 torque screwdriver, and the AMD-based server requires a Torx T20 torque screwdriver. Follow the removal and installation sequences shown on the cold plate assembly to loosen or tighten the nuts.



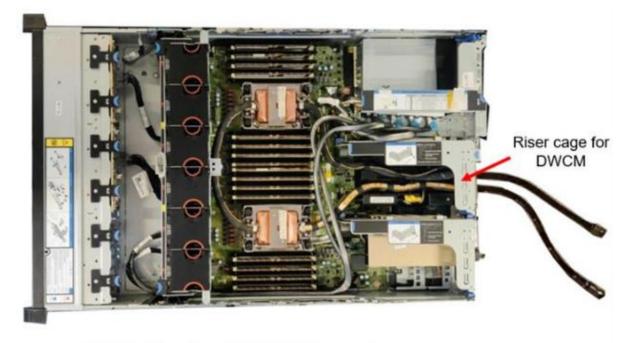
**Note:** Replacing a part using the wrong torque setting might damage the part.

Assembling the processor with a DWCM

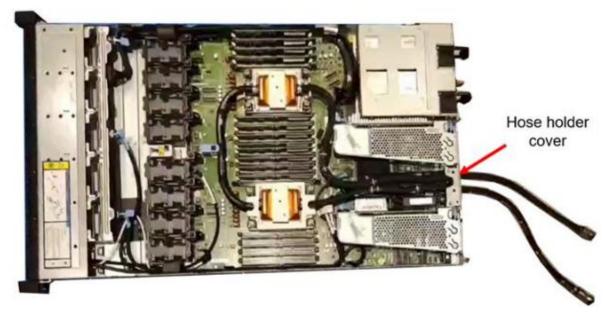


# Replacing a DWCM on ThinkSystem SR servers

DWCM replacement procedures are almost identical for ThinkSystem 2U and 1U systems. The only difference is that on 2U servers, the DWCM riser cage has to be removed before the module is installed or replaced. On 1U servers, the hose holder cover has to be removed.





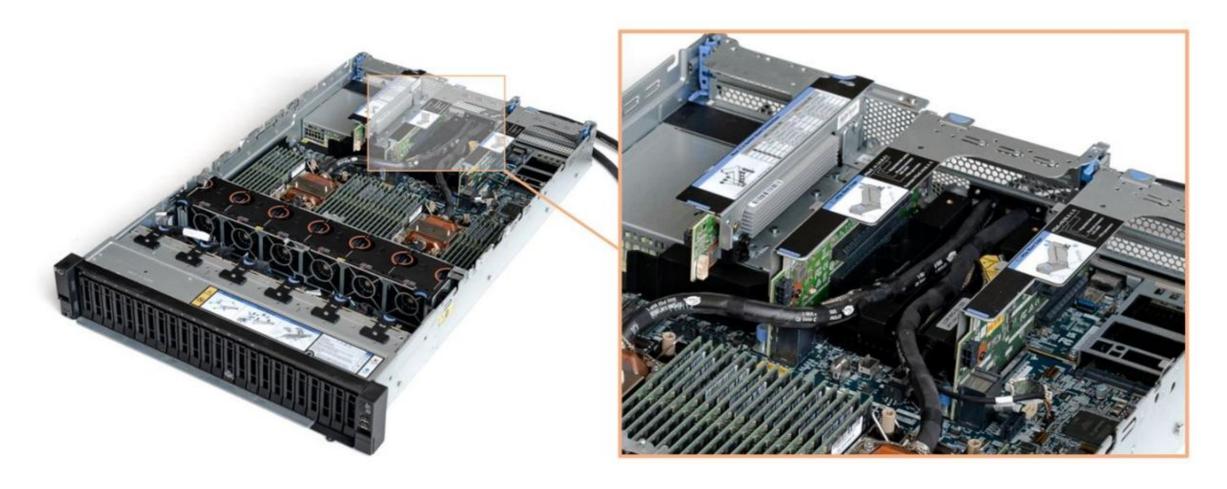


SR630 V3 with a DWCM (1U server)



## Removing a DWCM riser cage from the SR650 V3

The DWCM riser cage has to be removed from the SR650 V3 before a module is installed or replaced.

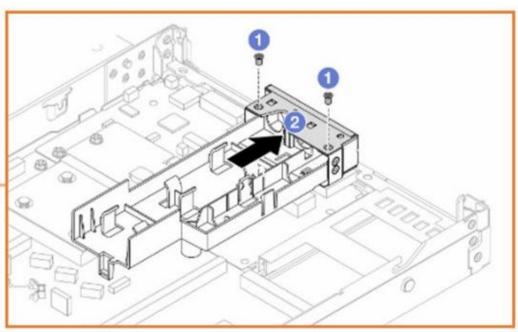




#### Removing a hose holder cover from the SR630 V3

The hose holder cover has to be removed from the SR630 V3 before a module is installed or replaced.

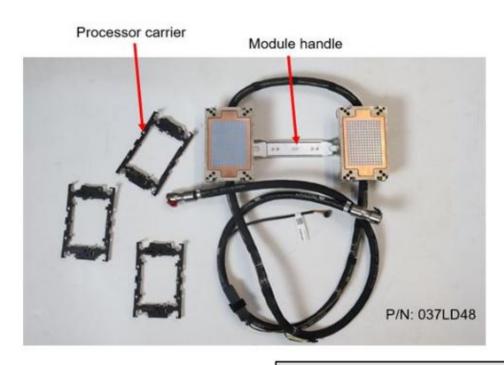


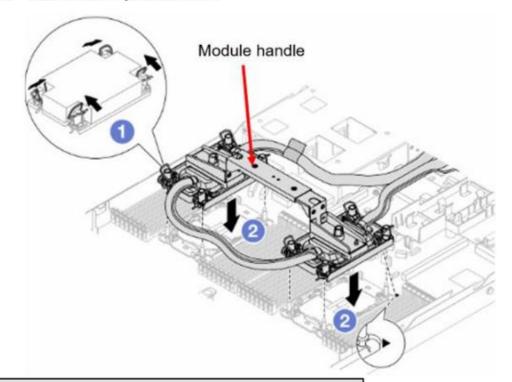




# Replacing a DWCM with installed processors

When replacing a DWCM, install the existing processors on the new DWCM, and then use the module handle shipped with the new component to move the new DWCM to the processor sockets. Fully fasten the Torx T30 nuts on the heat sinks. The torque required to fully tighten the fasteners is 0.9 to 1.3 Newton-meters or 8 to 12 inch-pounds.



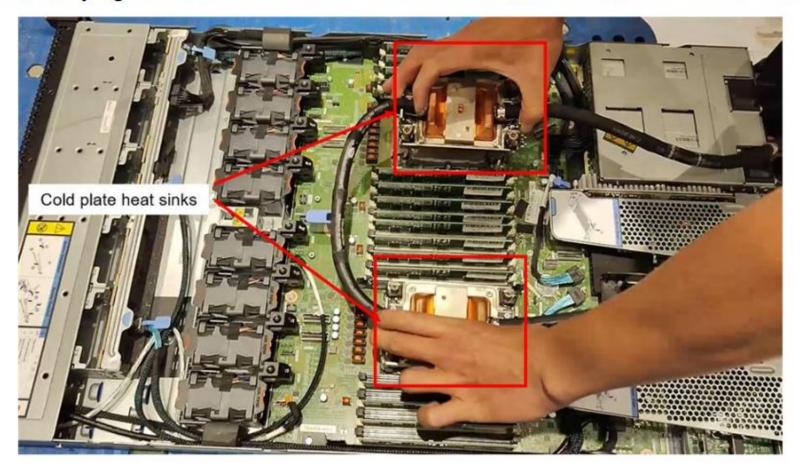


**Note:** The handle must be used throughout the replacement process. A new handle cannot be issued separately.



## Replacing a processor connected to a DWCM

Install the new processor on the existing DWCM, and then use both hands to hold the cold plate heat sinks and install the DWCM onto the processor socket. Fully fasten the Torx T30 nuts on the heat sinks. The torque required to fully tighten the fasteners is 0.9 to 1.3 Newton-meters or 8 to 12 inch-pounds.

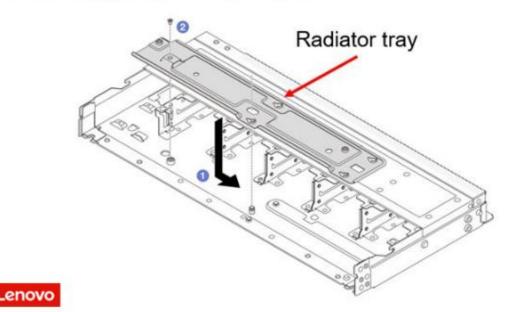


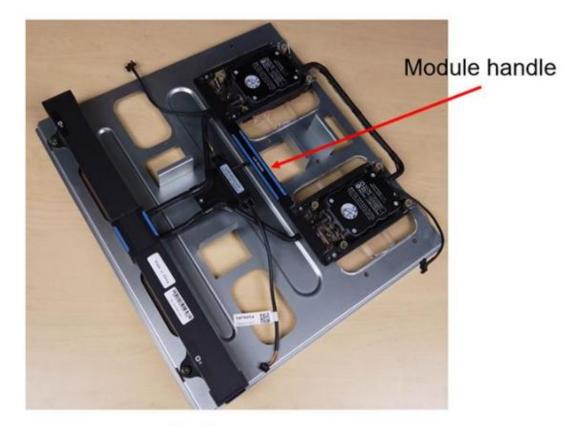


# Replacing a processor L2AM

When replacing or upgrading to a processor L2AM, note the following:

- Ensure the radiator tray is installed on the chassis.
- Use a T30 screwdriver to separate the air module from the shipping tray.
- Use the module handle when installing or removing the air module.





Radiator tray