

Hardware replacement tips

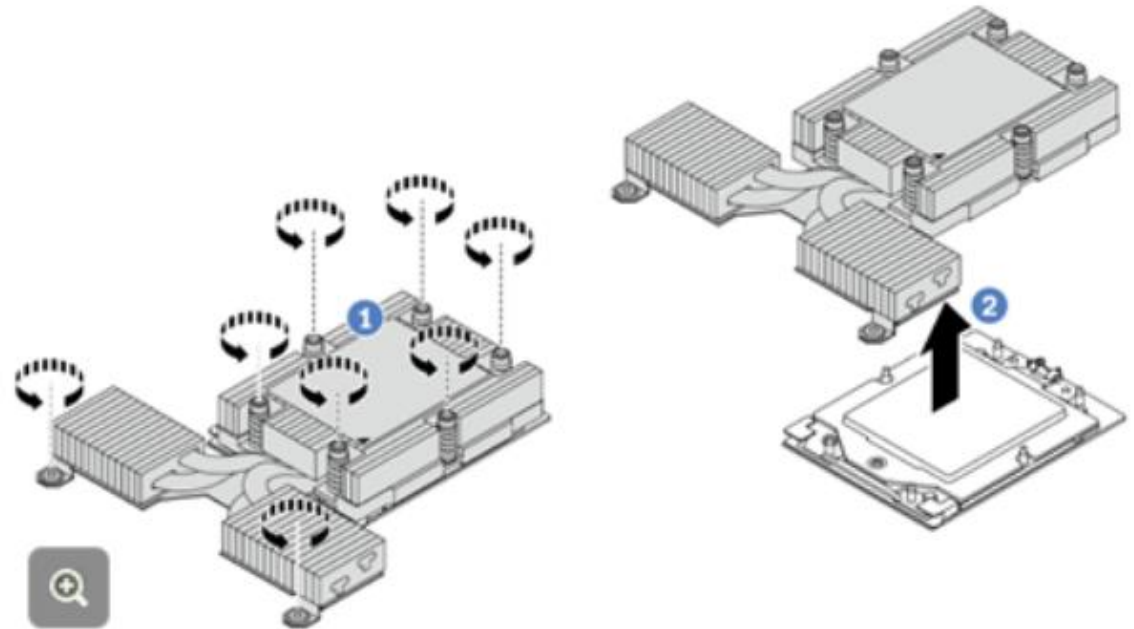
Part replacement highlights

The Lenovo logo is positioned in the top right corner of the slide. It consists of the word "Lenovo" in a white, sans-serif font, oriented vertically. The text is set against a rectangular background with a vertical color gradient that transitions from green at the top to blue at the bottom.

Lenovo

Replacing a heat sink

The SR645 V3 heat sink replacement procedure requires a Torx T20 torque screwdriver. The SR645 V3 heat sink, processor, and system board FRU are shipped with a Torx T20 bit. Follow the removal sequence instructions and torque settings shown on the heat sink label to remove or install the heat sink.



Replacing a firmware and RoT module

After replacing a firmware and RoT security module (RoT module), servicers must update the UEFI and LXPM firmware to the latest supported version before starting the system. If this does not happen, the system will not be able to recognize the correct firmware and will not start normally. As a result, the user will not be able to access the system OS.

Use one of the following methods to update the UEFI and LXPM firmware on the system after replacing the RoT module:

- OneCLI commands
- A USB boot kit with UEFI firmware and LXPM firmware packages
 - For more information on how to create a USB boot kit, refer to the following GLOSSE article: [How to create USB boot kit with OneCLI for RoT replacement in the field](#)

For the complete procedures, refer to the following GLOSSE tip page:

[How to do RoT Module FW update on ThinkSystem V3 machines](#)

Checking the processor PSB fuse policy

Servicers must use OneCLI commands to check the platform secure boot (PSB) fuse policy status of the system when working through the following procedures:

- Replacing one or more processors
- Replacing a processor board and RoT module at the same time

To understand how to use OneCLI commands to check the PSB fuse policy or to enable the PSB fuse policy, refer to the following GLOSSE article:

[How to update PSB fuse state on ThinkSystem AMD v3 machines or the later series](#)

Updating VPD

After replacing a processor board, service personnel must update the VPD (machine type and serial number) on the processor board. The SR645 V3 VPD update procedure is the same as that used with Intel-based ThinkSystem models (using the `onecli config set OneCLI` command).

Replacing an RoT module or system I/O board does not require an update of VPD.

Servicers can also use the XCC tool (for servicers only – not available for customers) to update VPD on a SR645 V3 server.

For more information, refer to the LXCE OneCLI common task section of course [ES51757B](#) [Introducing ThinkSystem tools](#), or the Update the Vital Product Data (VPD) section of the ThinkSystem SR645 V3 User Guide on [Lenovo Support](#).

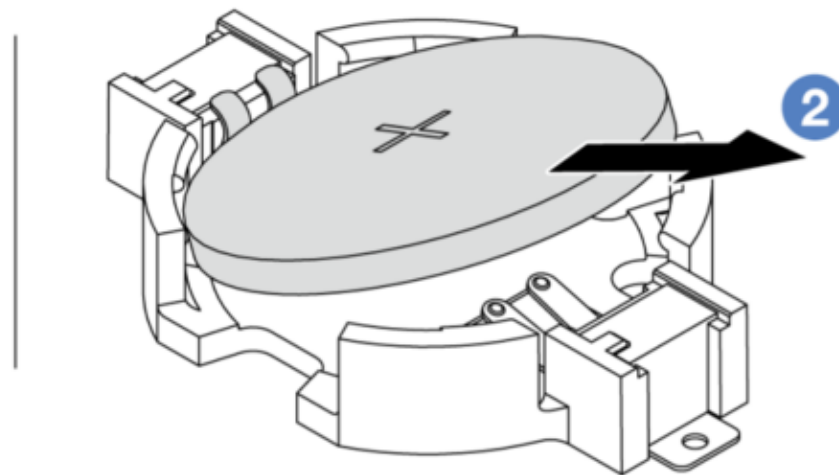
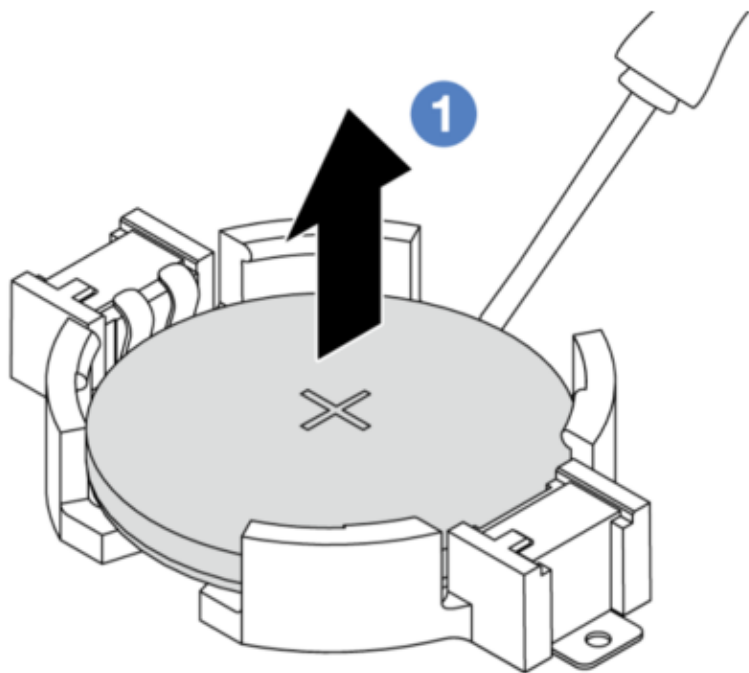
M.2 drive replacement

To replace M.2 drives and the M.2 adapter, you might need to adjust the retainer on the adapter.



Removing a CMOS battery

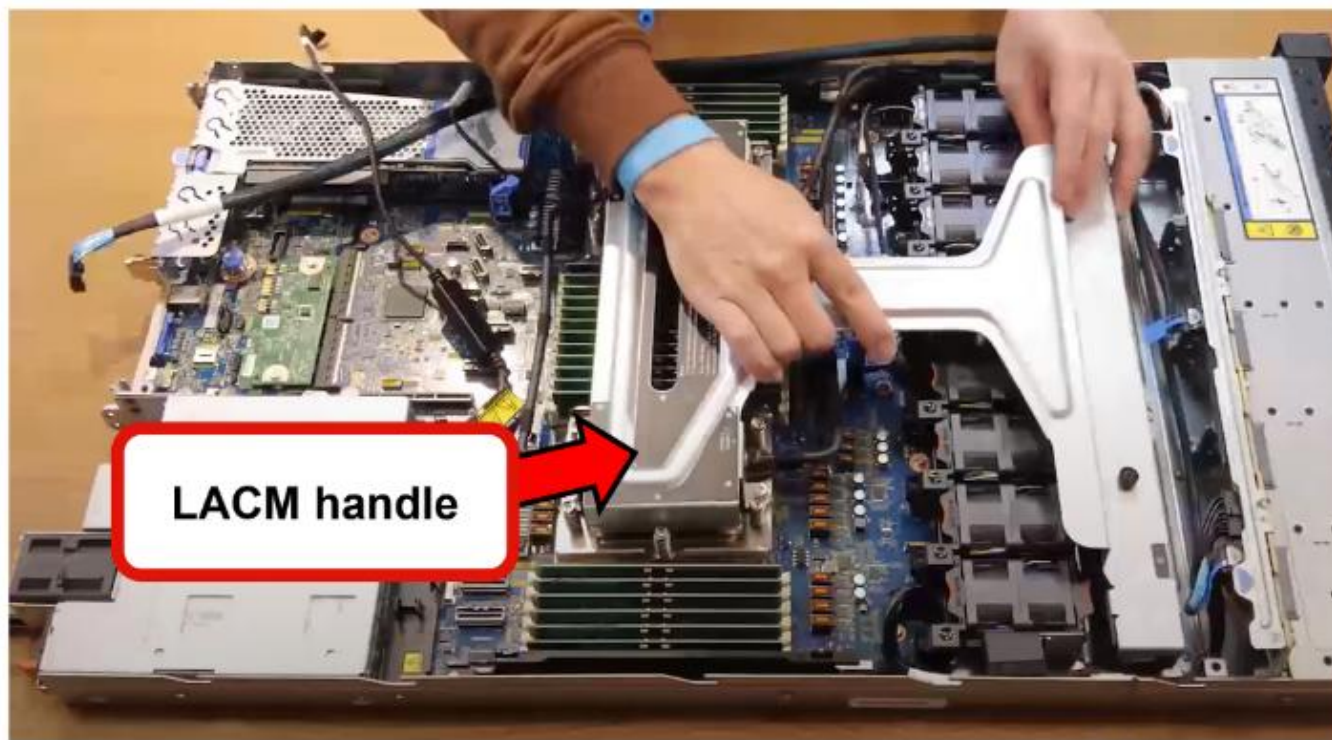
To remove a CMOS battery from the SR645 V3 system board, use a flat blade screwdriver to lever the battery from the socket. Do not use a finger to tilt or push the battery, as it might damage the battery socket. Any damage to the battery socket might result in the entire processor board needing to be replaced.



Replacing parts in a SR645 V3 with LACM

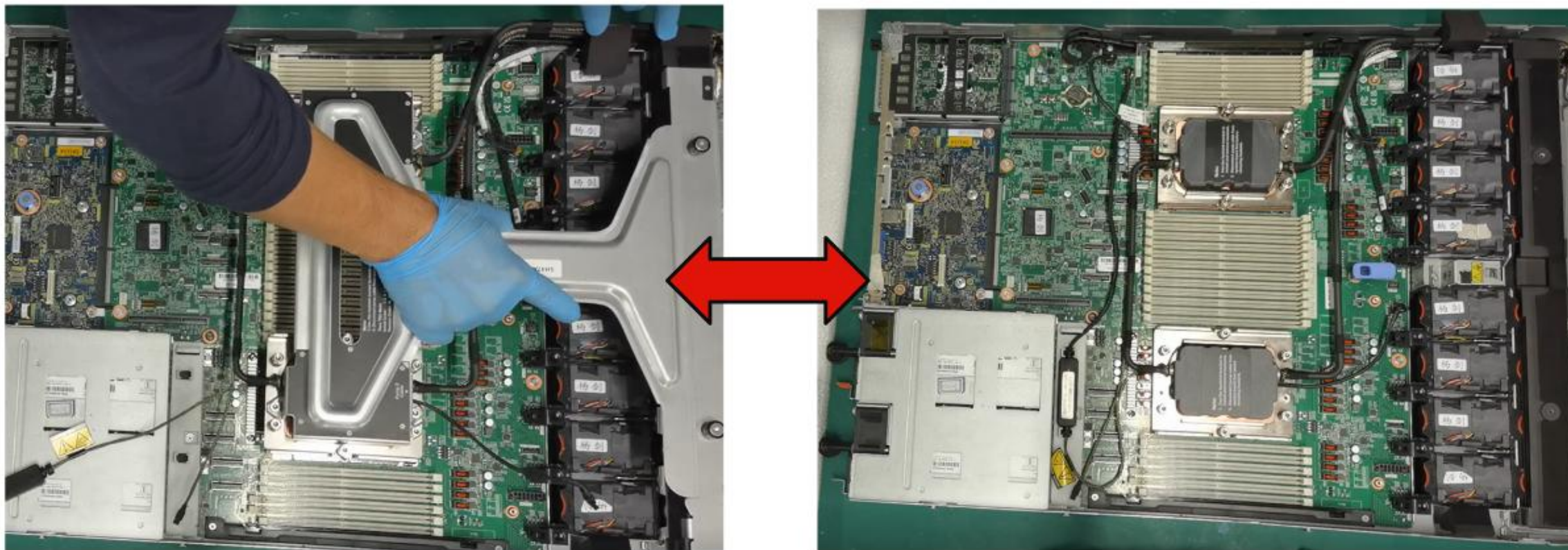
Attention: Before replacing the components listed below, check the heat sink type of the system to be serviced. If it is a Liquid Assisted Cooling Module (LACM), you will need a module handle (FRU PN: 03KM944, FRU name: LACM HTSK Bracket).

- Processor
- Processor board
- System I/O board



LACM replacement

To replace an LACM, you will need the LACM handle that comes with the LACM shipping package. Do not use your hands to move the LACM, as this could damage the part. For complete LACM replacement procedures, refer to the [SR645 V3 User Guide](#).



Summary

This course enabled you to:

- Describe the ThinkSystem SR645 V3 server and components
- List the SR645 V3 server specifications
- Describe the SR645 V3 server configurations and block diagrams
- Describe the SR645 V3 server management tools
- Describe the problem determination steps and explain how to troubleshoot issues with the SR645 V3