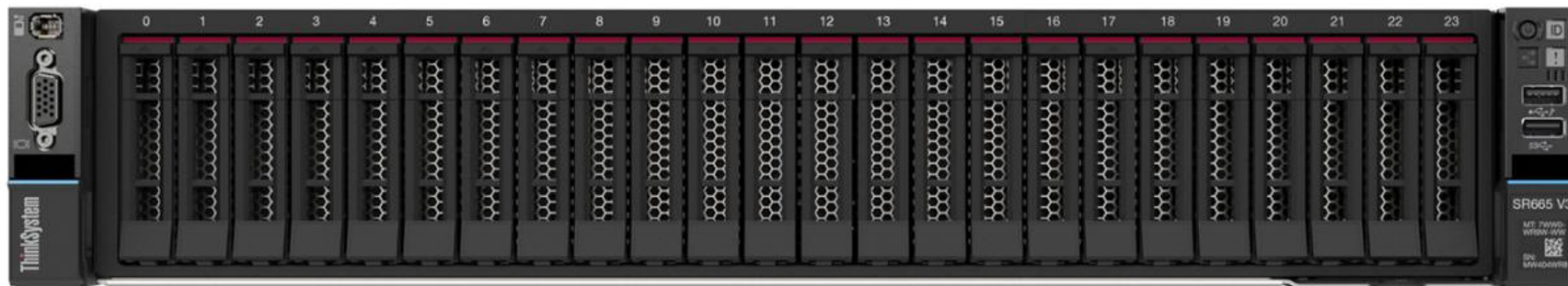# Product overview

Product features, technical specifications

Lenovo

ThinkSystem SR665 V3 product overview

The SR665 V3 is a 2U two-socket rack server that features the 4th and 5th Gen AMD EPYC (9004 and 9005 Series) processors. The SR665 V3 supports various drive and PCIe slot configurations, and it is ideal for high I/O workloads including databases, analytics, and virtualized environments.

The SR665 V3 has two machine types: the 7D9A (three-year warranty) and the 7D9B (one-year warranty).

SR665 V3 specifications

Features	Descriptions
Form factor	2U rack mount
Processor	One or two AMD EPYC 9004 series processors (AMD code name: Genoa) • Up to 96 Zen4 cores (192 threads) per socket • Up to four GMI3 links at up to 32 GT/s • TDP of up to 360 W or One or two AMD EPYC 9005 series processors (AMD code name: Turin) • Up to 160 Zen 5 cores and 320 threads • Core speed of up to 4.0 GHz • TDP of up to 400 W
Memory	24 DIMM slots with two processors (12 DIMM slots per processor). Each processor has 12 memory channels, with 1 DIMM per channel (DPC). Lenovo TruDDR5 RDIMMs, 3DS RDIMMs, and 9x4 RDIMMs are supported. Memory speeds of up to 6000 MHz are supported with 5th Gen AMD EPYC processors.
M.2 drives	One side-by-side M.2 adapter, supports up to 480 GB SATA M.2 drives
Storage	• Up to 20 3.5-inch or 40 2.5-inch hot-swap drive bays

Note: For the latest specifications, refer to the Lenovo Press product guide.

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SR665 V3 specifications

Features	Descriptions

Storage	• Up to 20 3.5-inch or 40 2.5-inch hot-swap drive bays
	• Combinations of SAS/SATA, NVMe, or AnyBay are supported
	• Boot Drives:
	    • Two 7 mm drives at the rear
	    • Internal M.2 module supporting up to two M.2 drives

Network interface	• OCP 3.0 • 1 GbE Dedicated Management, optional 2nd port using an OCP slot
PCI expansion slots	• Up to 12 PCIe slots (10 at rear and two at front), plus a slot dedicated to an OCP 3.0 adapter. 2.5-inch drive configurations also support an additional internal bay for a cabled RAID adapter or HBA. • Rear: Up to 10 PCIe slots plus a slot dedicated to the OCP adapter. Slots are either PCIe 5.0 or 4.0 depending on riser selection and rear drive bay selection. The use of some slots requires two processors. • Slots are configured using three riser cards. Riser 1 (slots 1 to 3) and Riser 2 (slots 4 to 6) are installed in slots in the system board. Riser 3 (slots 7 and 8) and Riser 4 (slots 9 and 10) are cabled to ports on the system board. A variety of riser cards are available. • Front: The server also supports slots at the front of the server (configurations with up to 16 drive bays): Two PCIe x16 full-height half-length slots plus one OCP 3.0 slot

Note: For the latest specifications, refer to the [Lenovo Press product guide](#).

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SR665 V3 specifications

Features	Descriptions
Network interface	• OCP 3.0 • 1 GbE Dedicated Management, optional 2nd port using an OCP slot
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Cooling	Up to six hot-swap system fans (N+1 redundancy)
Power supplies	Up to two hot-swap power supplies

Note: For the latest specifications, refer to the Lenovo Press product guide.

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SR665 V3 management tools

The SR665 V3 supports the following Lenovo management tools:

Options		Functions							
		Multi-system mgmt	OS deploy-ment	System configu-ration	Firm-ware up-dates[1]	Event-s/alert moni-toring	Inven-tory/ logs	Pow-er mgmt	Power planning
Lenovo XClarity Controller				√	√[2]	√	√[4]		
Lenovo XClarity Essen-tials toolset	OneCLI	√		√	√[2]	√	√[4]		
	Bootable Media Creator			√	√[2]		√[4]		
	UpdateXpress			√	√[2]				
Lenovo XClarity Provisioning Manager			√	√	√[3]		√[5]		

Note:

1. Most options can be updated with Lenovo tools, but others, such as GPU firmware or Omni-Path firmware, require the use of supplier tools.
2. To update the firmware for the ROM option using Lenovo XClarity Essentials (LXCE) or Lenovo XClarity Controller 2 (XCC2), the UEFI settings must be set to Auto or UEFI.
3. To allow detailed adapter card information, such as model name and firmware levels to be displayed in XCC or LXCE, the UEFI settings for the ROM option must be set to Auto or UEFI.
4. Firmware updates for optional devices, such as adapters, are not supported.
5. LXPM provides a limited list of information about parts.

SR665 V3 front views

Click the pictures to see more information.
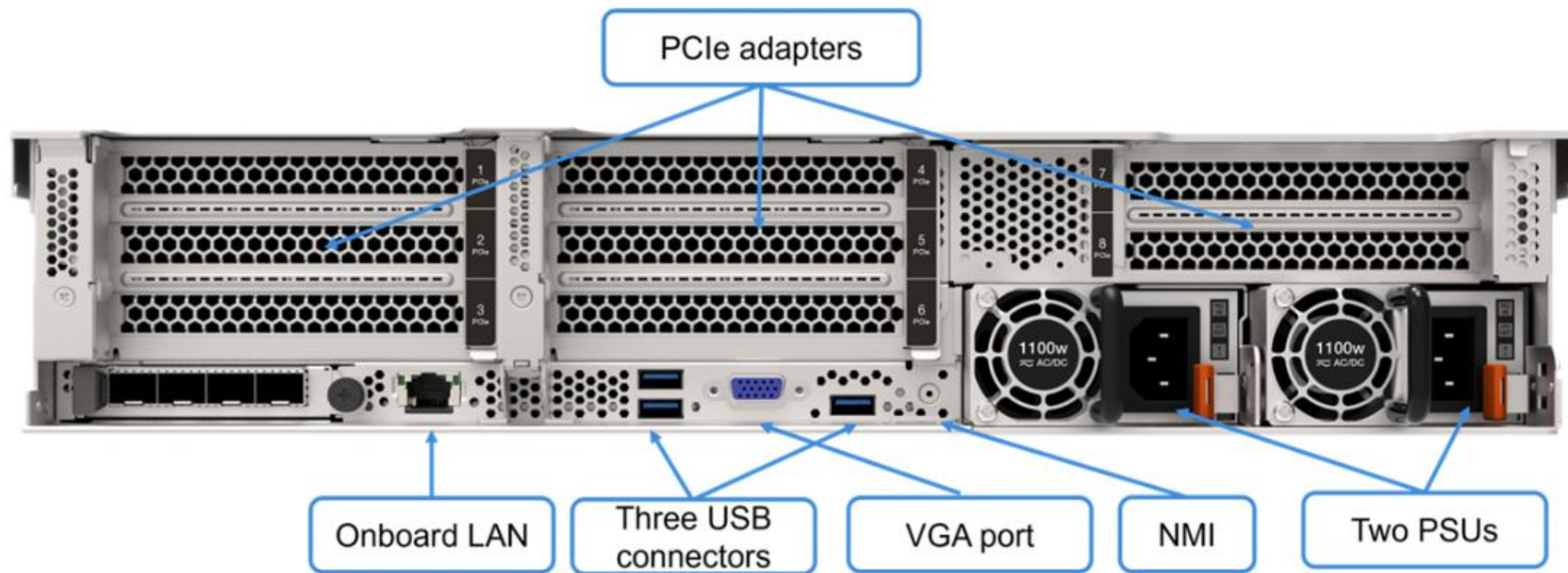
- **3.5-inch drives configuration**

- **2.5-inch drives configuration**

Note: For more information about front drive configurations, refer to the System configurations and diagrams section.
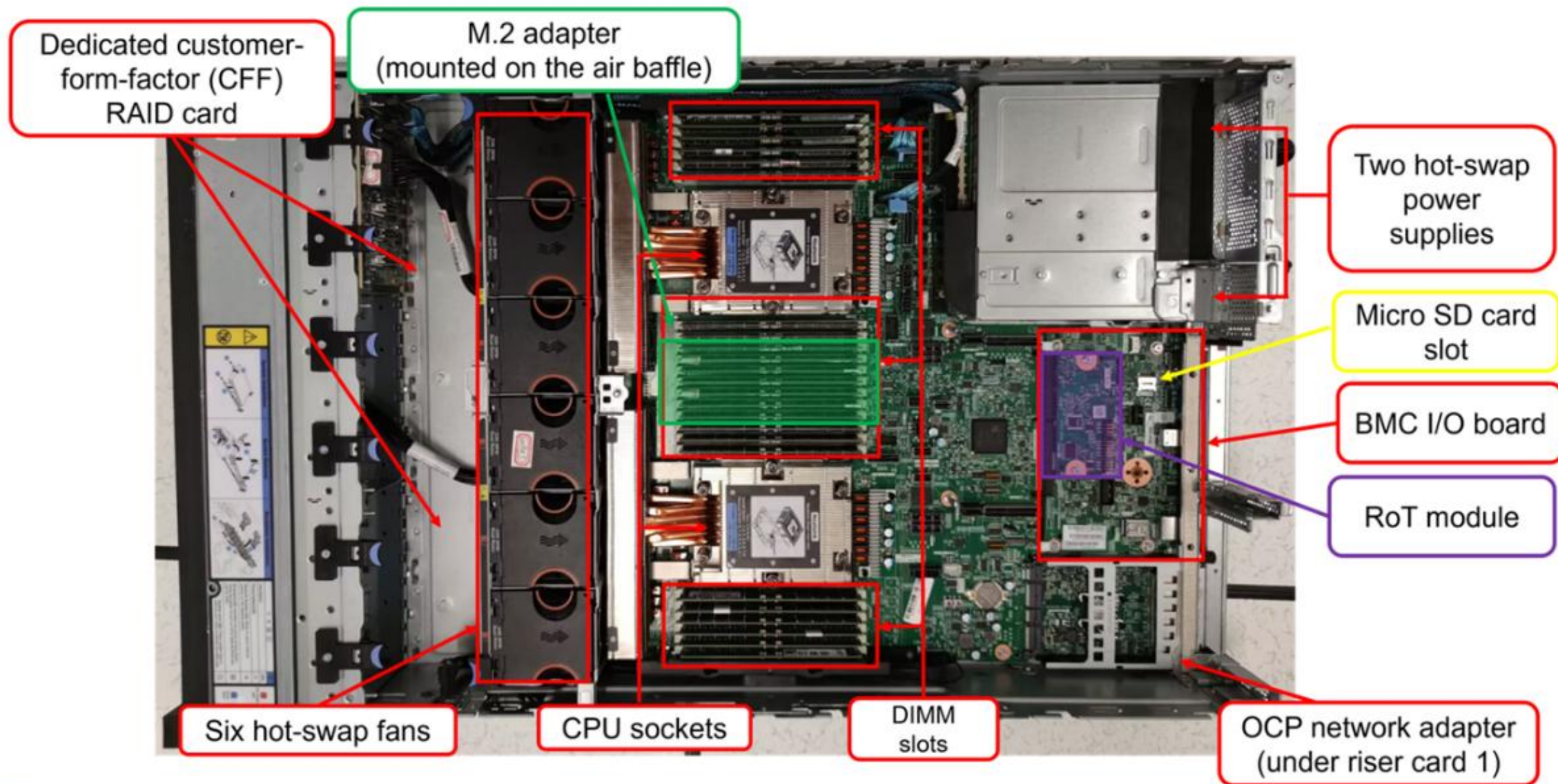
SR665 V3 rear view

The SR665 V3 supports eight PCIe adapters or six PCIe adapters with four 2.5-inch drives.

Note: For more information about rear PCIe or drive configurations, refer to the System configurations and diagrams section.

SR665 V3 internal view

Dedicated customer-form-factor (CFF) RAID card

M.2 adapter (mounted on the air baffle)

Two hot-swap power supplies

Micro SD card slot

BMC I/O board

RoT module

Six hot-swap fans

CPU sockets

DIMM slots

OCP network adapter (under riser card 1)

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BMC I/O board and RoT module

The SR665 V3 system board has three components
- Processor board
  - A board containing CPU sockets, PCIe slots, memory slots, and other server component connectors
- System I/O board
  - A board containing the system BMC (XCC2) management port, USB ports, and a VGA connector
  - A Micro SD card slot to extend XCC2 storage space for the backup of firmware and for remote console virtual media
- Firmware and Root of Trust security module (RoT module)
  - A mezzanine card containing the Trusted Platform Module (TPM), UEFI firmware, XCC2 firmware, and a silicon Root of Trust
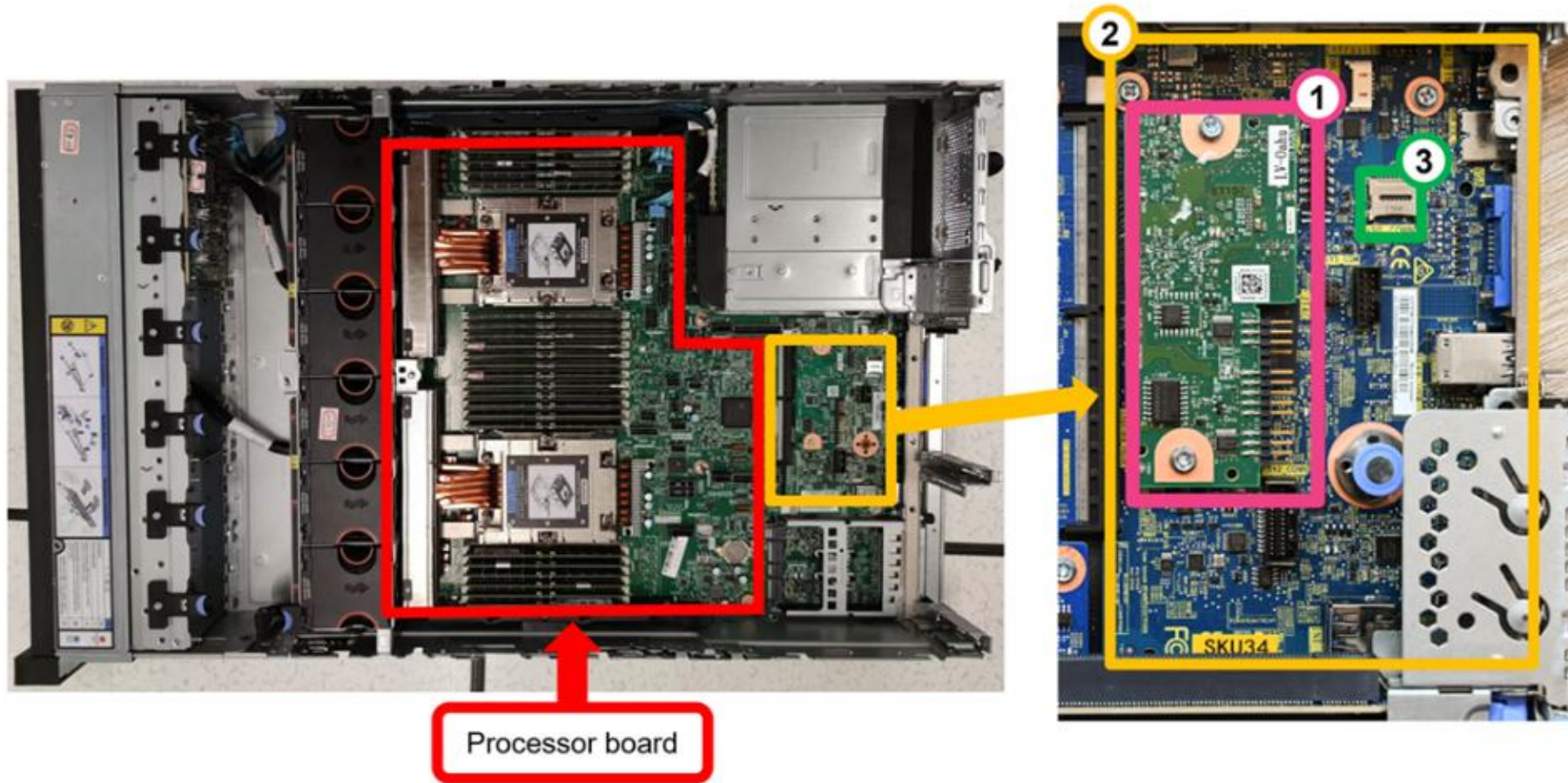
Click HERE to see the processor board, BMC I/O board, and RoT module locations

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Processor board, system I/O board, and RoT module

Processor board

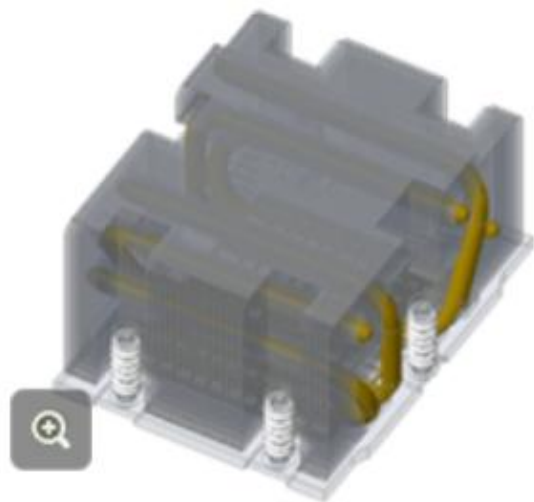1. RoT module
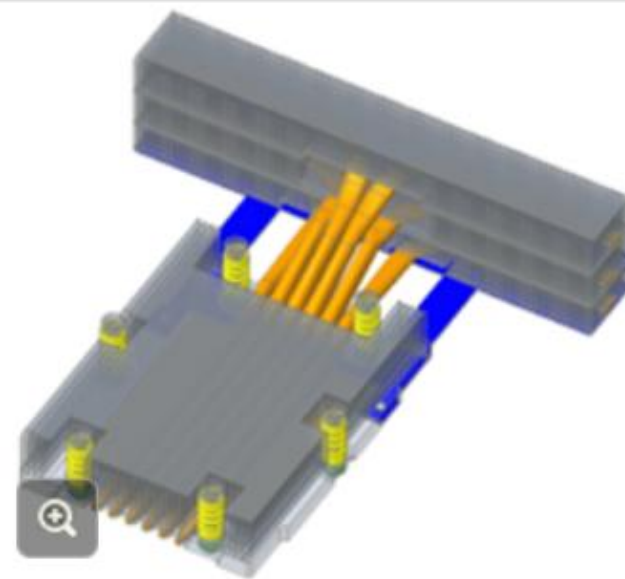2. System I/O board
3. Micro SD card slot

SR665 V3 processor heat sink

The SR665 V3 supports two types of heat sink: standard and performance.

Standard 2U heat sink
For processors with a TDP of less
than 300 W

Performance heat sink (1U CPU heat sink
and 2U front fin)
For processors with a TDP of 300 W or
more, or with middle bay drives or a GPU.

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