Servicing the Lenovo ThinkSystem SR850P server

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Prerequisites

- ES41758 - ThinkSystem servers architecture introduction
  https://lenovoedu.lenovo.com/course/view.php?idnumber=ES41758
- ES51757 - Introducing ThinkSystem tools
  https://lenovoedu.lenovo.com/course/view.php?idnumber=ES51757
- ES41759 - ThinkSystem problem determination
  https://lenovoedu.lenovo.com/course/view.php?idnumber=ES41759
- ES41950 - ThinkSystem servers with Intel second-generation Xeon Scalable processors
  https://lenovoedu.lenovo.com/course/view.php?idnumber=ES41950
- ES51965 - Introducing the Intel Optane DC persistent memory module
  https://lenovoedu.lenovo.com/course/view.php?idnumber=ES51965

Objectives

After completing the course, you will be able to:
- Describe the features of the Lenovo ThinkSystem SR850P
- Describe the specifications of the Lenovo ThinkSystem SR850P
- Describe the components of the Lenovo ThinkSystem SR850P
- Describe the configurations of the Lenovo ThinkSystem SR850P
- Describe the problem determination steps and explain how to troubleshoot issues with the Lenovo ThinkSystem SR850P

Product overview

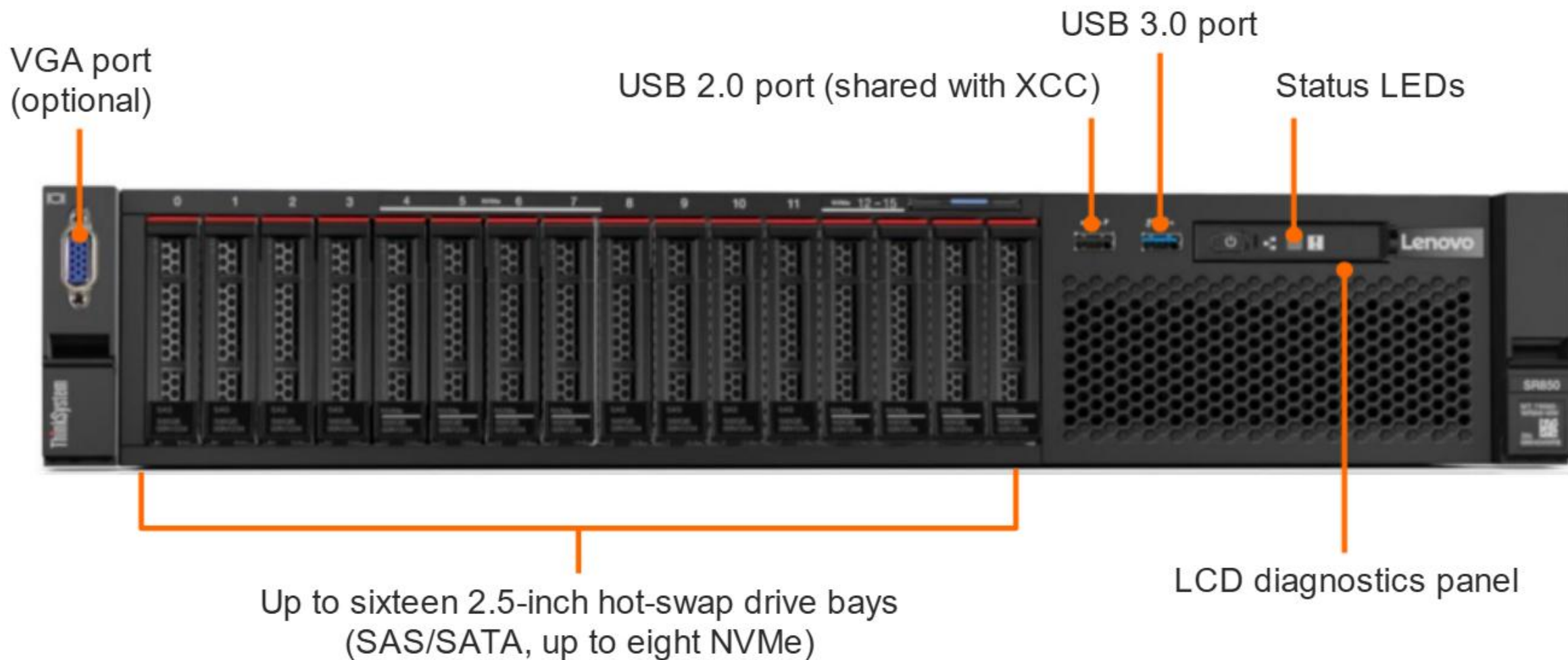Product description and front, rear, and inside views

ThinkSystem SR850P product overview

The SR850P is a 2U rack server with four Intel® Xeon® SP Gen-1 or Gen-2 processors. The SR850P enables flexibility in terms of processors, memory modules, and storage. The server also features:
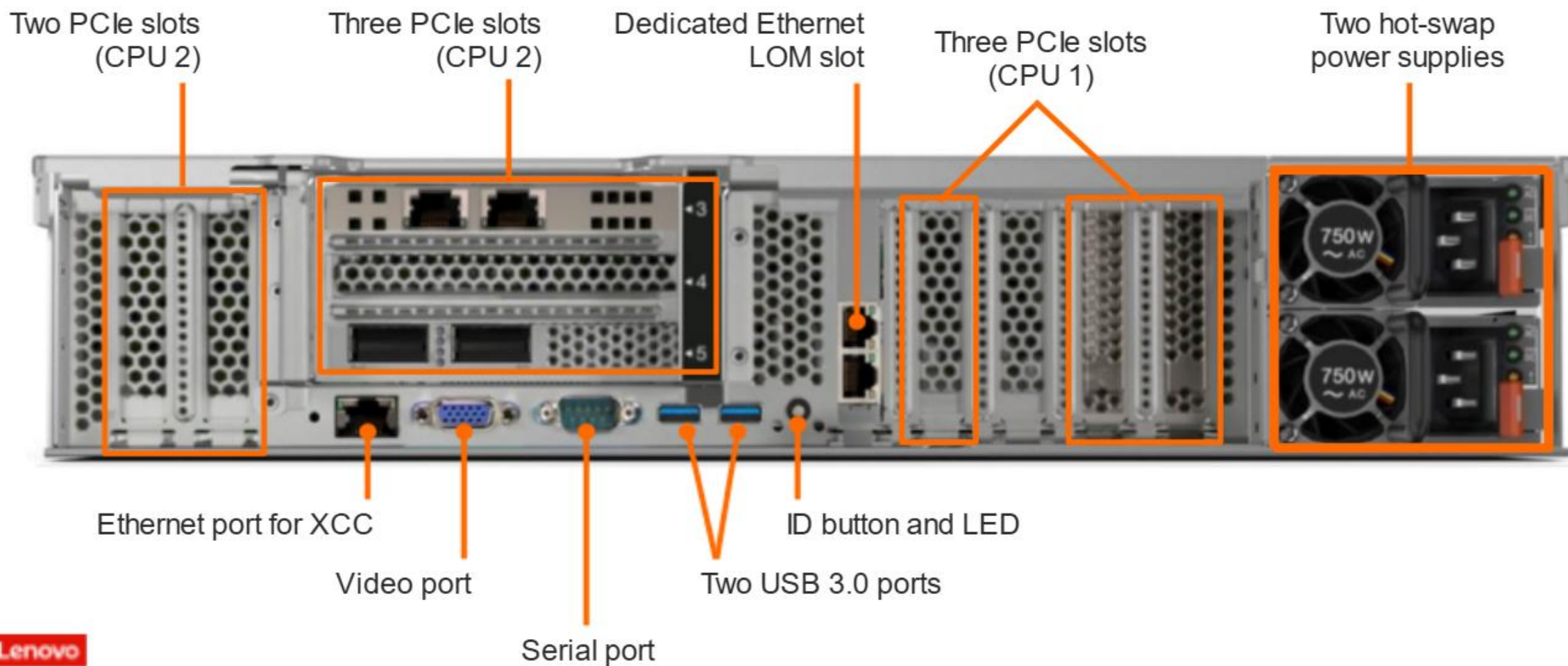
- Support for full mesh UPI topology; 3 UPI links running at 10.4 GT/s
- The SR850P can only be installed with four CPUs, which support four to 48 DIMMs
- Support for up to 2933 MHz memory modules and AEP persistent memory
- Lenovo AnyBay drive bays, which accommodate SAS, SATA, and NVMe storage devices in the same bays
- Direct-connect NVMe ports – four direct motherboard connections for NVMe storage providing read/writes and reducing costs by eliminating PCIe switch adapters
- Expansion with ten PCIe slots (including four x16), including one for a LOM slot
- M.2 storage for fast OS boot times, which also frees up drive bays for data storage
- The SR850P released with the MT 7D2F has a one-year warranty; with the 7D2G, a three-year warranty; with the SAP-specific 7D2H, a three-year warranty
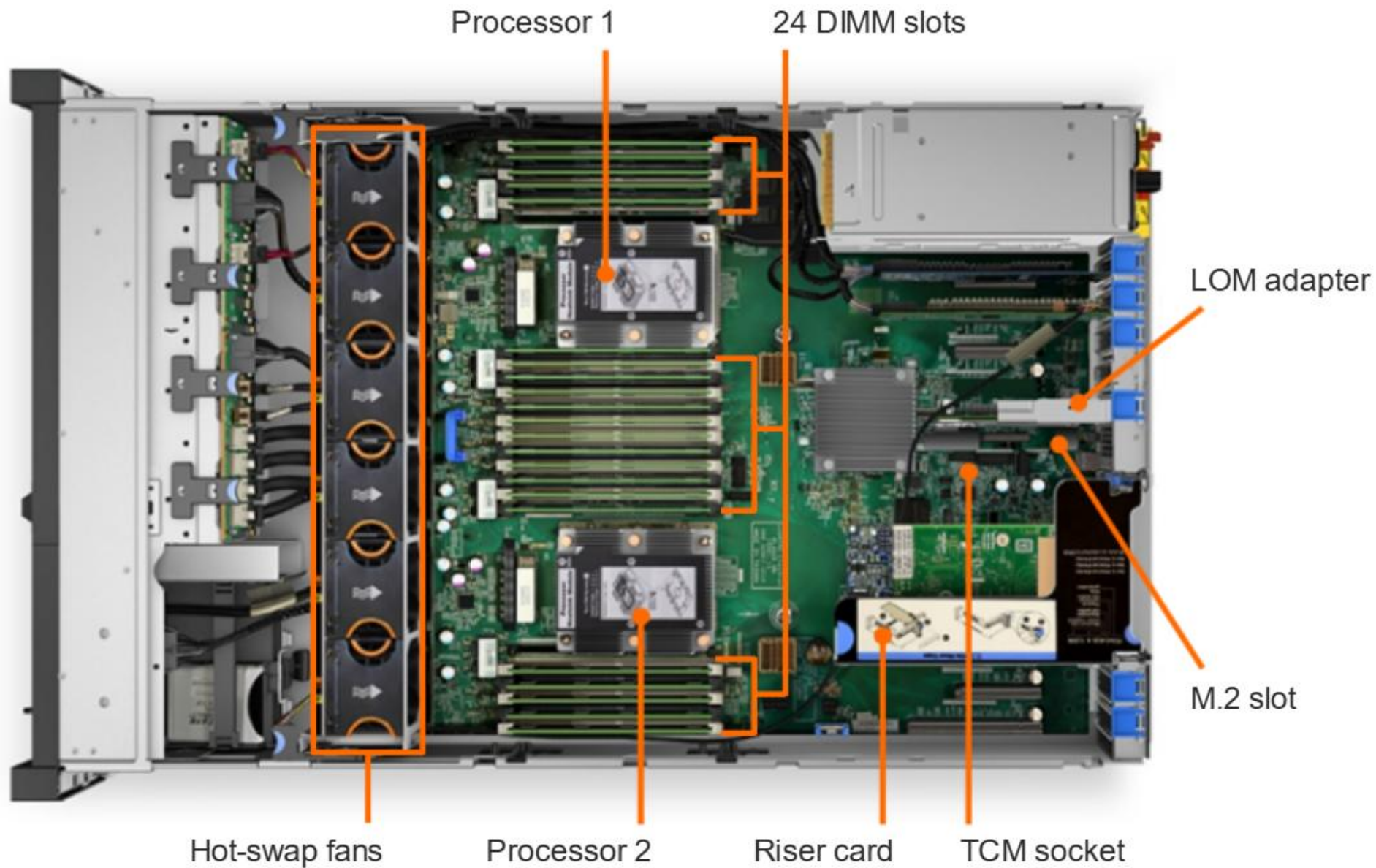
Front view

VGA port
(optional)

USB 2.0 port (shared with XCC)

USB 3.0 port

Status LEDs

LCD diagnostics panel

Up to sixteen 2.5-inch hot-swap drive bays
(SAS/SATA, up to eight NVMe)

Rear view

The server supports up to nine PCIe slots including a slot reserved for the M.2 adapter. All slots are available with two processors.

Two PCIe slots (CPU 2)

Three PCIe slots (CPU 2)

Dedicated Ethernet LOM slot

Three PCIe slots (CPU 1)

Two hot-swap power supplies

Ethernet port for XCC

Video port

Serial port

Two USB 3.0 ports

ID button and LED

Internal view

Processor 1

24 DIMM slots

LOM adapter

M.2 slot

Hot-swap fans

Processor 2

Riser card

TCM socket

Processor and memory expansion tray – internal view

24 DIMM slots

Processor 3

Two NVMe connectors

Processor 4