Five Highlights of the Lenovo ThinkSystem SR630 V3 Server

Article

The ThinkSystem SR630 V3 is a powerful, dual processor, 1U rack server maximized for performance. Designed for agility and speed, the SR630 V3 operates versatile workloads while providing easy management. Lets take a look at five highlights of the SR630 V3 server.

Figure 1. Lenovo ThinkSystem SR630 V3

1. Industry Leading Density

The smallest rack server available, this SR630 V3 1U server provides rack density and flexibility to grow with minimal data center space. With a dual processor, maximized for performance and 4th Gen Intel® Xeon® Scalable processors. When you factor in 32 DIMMs of DDR5 memories, PCIe Gen5 technology, and EDSFF E1.S drives thru direct NVMe, it's a highly capable 1U server which can manage complex workloads at top speed.

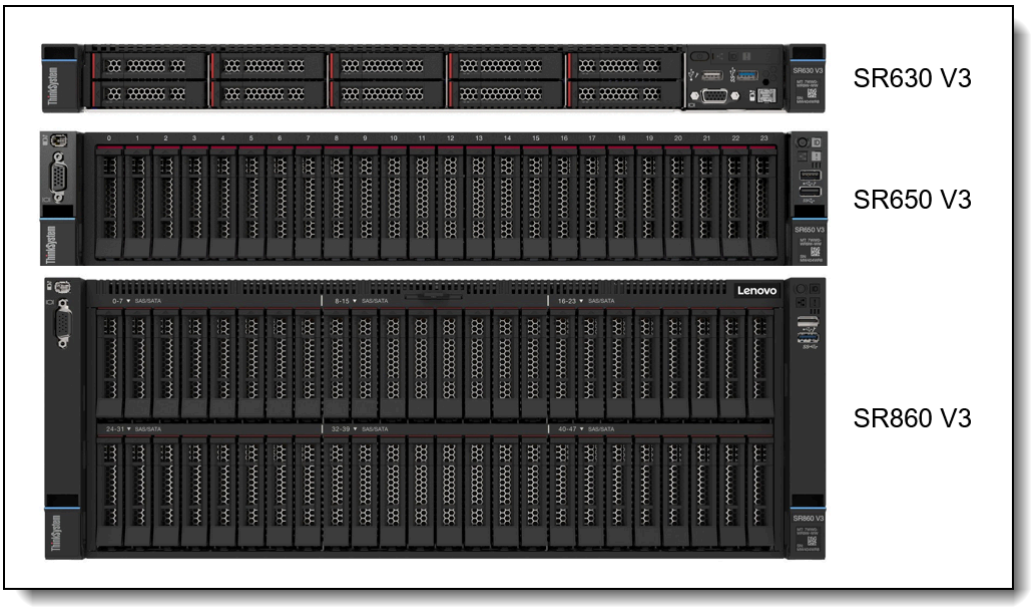

Figure 2. ThinkSystem SR630 V3, SR650 V3 and SR860 V3 size comparisons

2. Flexible Storage

The SR630 V3 support a surprisingly wide variety of storage options for a 1U server. The SR630 V3 supports 4x 3.5-inch or 12x 2.5-inch or 16x EDSFF drive bays, depending on the selected chassis and backplane configuration. The server also supports configurations without any drive bays if desired.

The server supports front and rear drive storage:

SR630 V3 Front Storage:

- 4x 3.5-inch hot-swap bays, or
- Up to 10x 2.5-inch hot-swap bays, or
- 16x EDSFF hot-swap bays

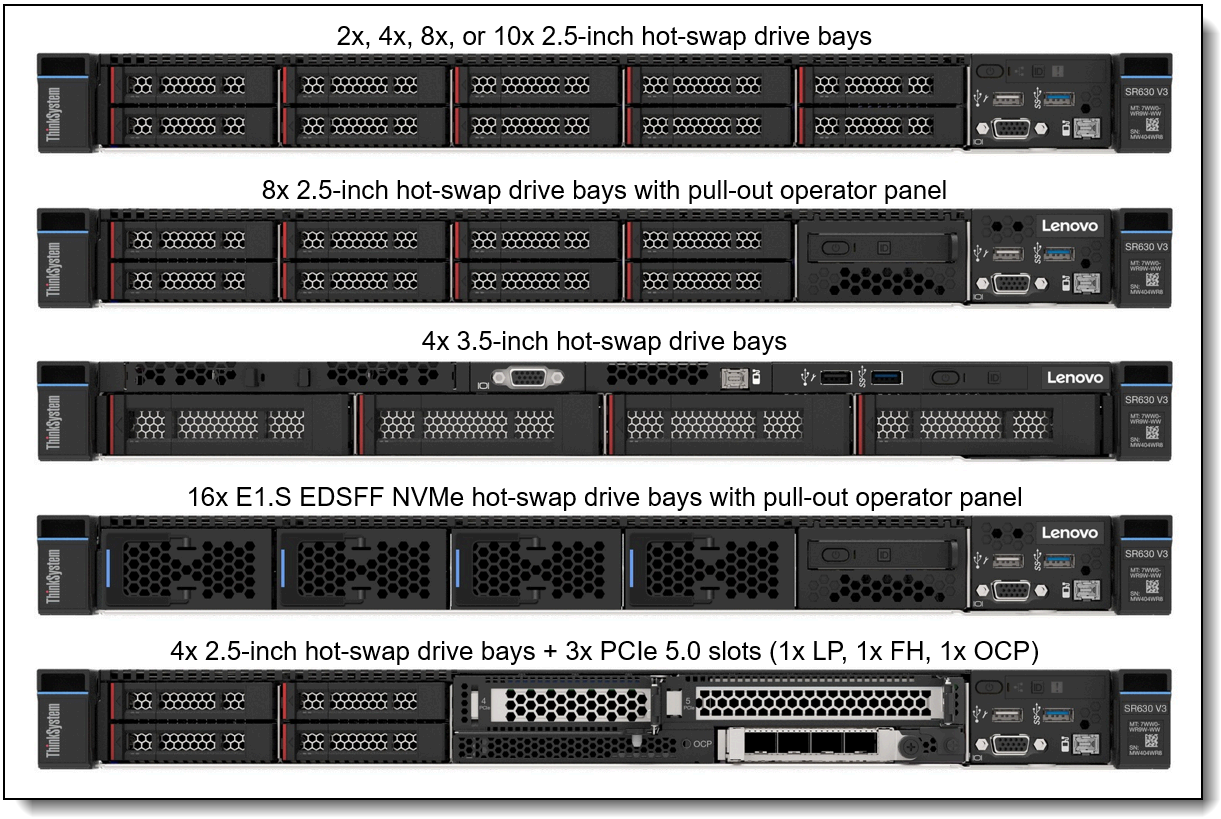

Figure 3. Front configurations of the ThinkSystem SR630 V3

SR630 V3 Rear Storage:

- 2x 2.5-inch hot-swap bays, or
- 2x 7mm hot-swap drives bays

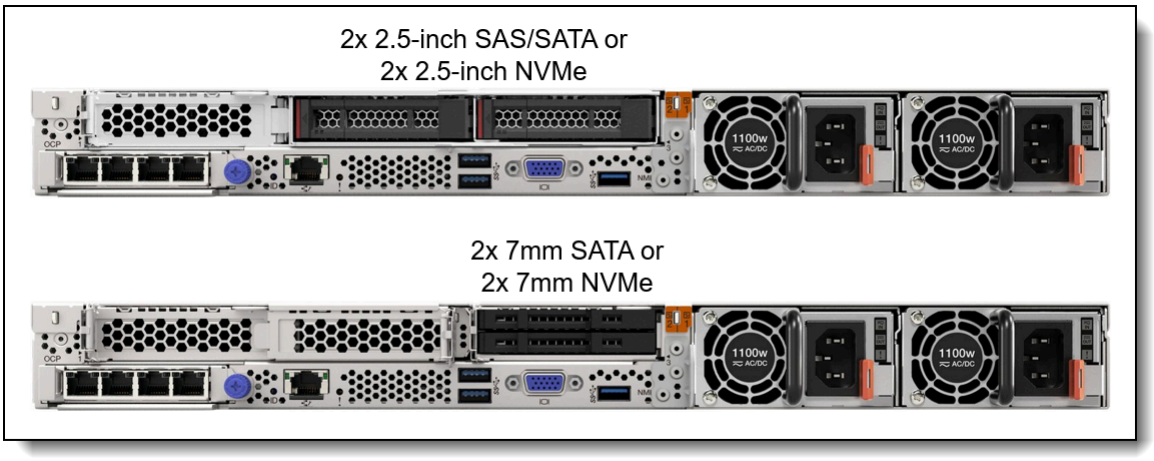

Figure 4.. Rear drive bay configurations of the SR630 V3

All drives are hot-swap and are accessible from the front or from the rear. The server also supports one or two M.2 drives, installed in an M.2 adapter internal to the server.

3. Flexible PCIe

The SR630 V3 supports a total of up to 3 PCIe slots, all with rear access, plus a dedicated OCP 3.0 SFF slot for networking. The SR630 V3 also supports front-accessible PCIe slots (planned support 2Q/2023). It is also possible to configure an SR630 V3 without any PCIe slots.

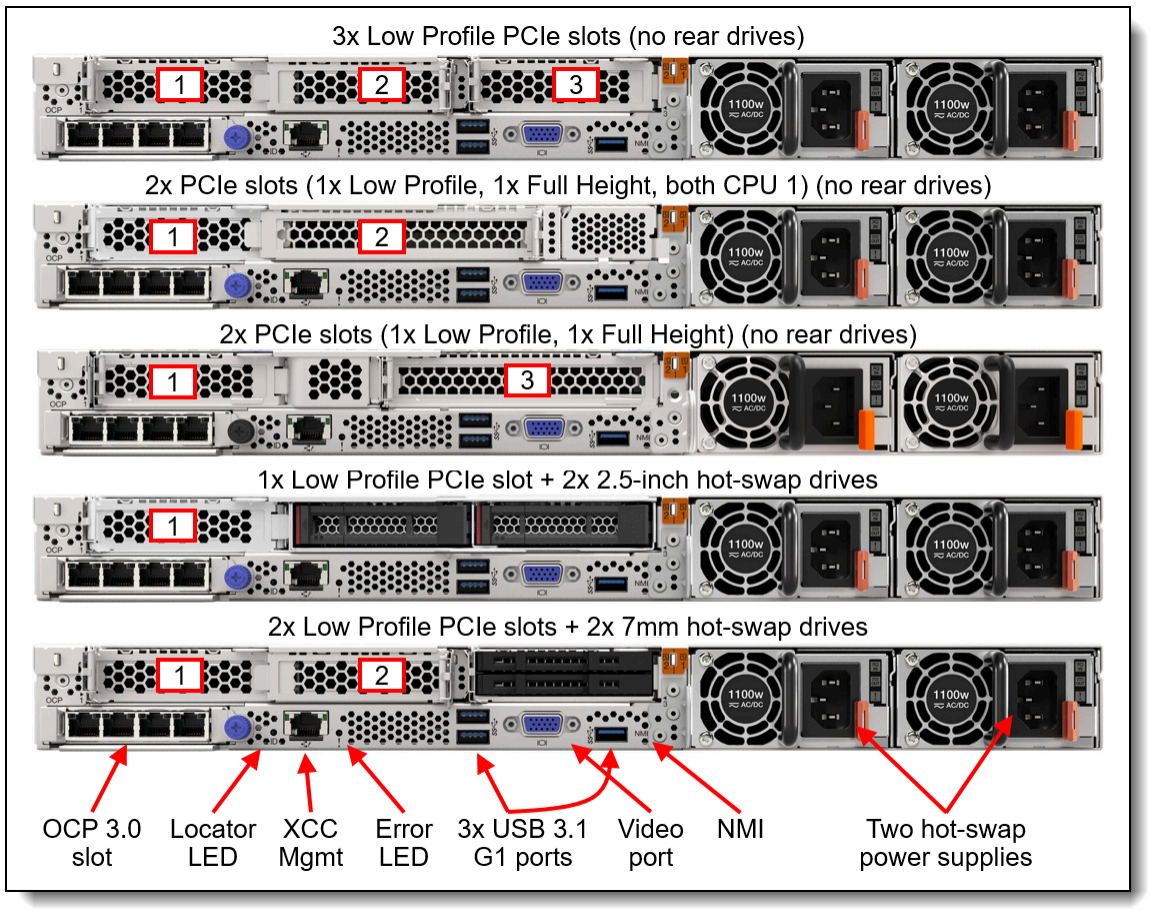

Figure 5. Rear view of the SR630 V3

4. Increased Performance, Capacity and Lower Power with DDR5 Memory

DDR5 is the newest RAM available for Lenovo ThinkSystem servers. The DDR means “double data rate”, and the “5” means that this is the fifth generation of this type of RAM.

DDR5 provides:

- Higher Performance - DDR5 offerings are faster and more efficient than the latest DDR4. DDR5 starts at 4800 MT/s, where DDR4 maxes out at 3200 MT/s.
- Higher Capacity - DDR5 memory supports larger RAM devices than DDR4.
- Lower Power Consumption - Not only do the DIMMs themselves consume less power, but less power is needed to cool them.

5. Enhanced Security

The SR630 V3 includes many security features including Lenovo ThinkShield security software. ThinkShield prevents, detects and remediates against attacks, providing security in the supply chain, below the OS in the server, and from the OS to the cloud. The XClarity system manager simplifies infrastructure processes, handling faults, and adding new servers to the network. It also adds security by monitoring log events.

The SR630 V3 server offers the following electronic security features:

- Secure Boot function of the Intel Xeon processor
- Support for Platform Firmware Resiliency (PFR) hardware Root of Trust (RoT)
- Firmware signature processes compliant with FIPS and NIST requirements
- Administrator and power-on password
- Integrated Trusted Platform Module (TPM) supporting TPM 2.0
- Self-encrypting drives (SEDs)

The SR630 V3 server also offers the following optional physical security features:

- Optional chassis intrusion switch
- Optional lockable front security bezel

Lenovo's ThinkShield Security is a transparent and comprehensive approach to security that extends to all dimensions of our data center products: from development, to supply chain, and through the entire product lifecycle. This includes Platform Firmware Resiliency (PFR) hardware Root of Trust (RoT) which enables the system to be NIST SP800-193 compliant.

Further reading

For further reading, see these SR630 V3 resources:

- SR630 V3 Datasheet
- SR630 V3 Product Guide
- SR630 V3 Product Web page

This article is one in a series on the ThinkSystem V3 servers:

- **Five Highlights of the Lenovo ThinkSystem SR630 V3 Server**
- Five Highlights of the Lenovo ThinkSystem SR650 V3 Server
- Five Highlights of the Lenovo ThinkSystem SR850 V3 Server
- Five Highlights of the Lenovo ThinkSystem SR860 V3 Server
- RAS Features of the Lenovo ThinkSystem Intel Servers

About the author

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