ThinkSystem SR850P features and specifications

Product features, technical specifications

Features and specifications

Features	SR850P
Form factor	2U rack
Processor	Four Intel Xeon SP Gen-2 Gold or Platinum processors. Support for processors with up to 28 cores, core speeds of up to 3.6 GHz, and TDP ratings of up to 205 W. Mesh topology is supported.
Chipset	Intel C624 "Lewisburg" chipset
Memory	• Up to 48 DIMM slots; DDR4 DIMM capable • 16 GB, 32 GB, 64 GB and 128 GB DDR4 DIMMs • Support for up to 24 Intel AEP; 128 GB, 256 GB, and 512 GB supported
Expansion slots	• Up to ten total slots in the rear (9 PCIe, 1 LOM) • Up to four x16 slots with the new riser • One optional ML2 slot and NW LOM
Drive bay	• Up to sixteen 2.5-inch hot-swap SAS/SATA bays • Optional internal M.2 module
RAID support	• No integrated RAID - RAID provided by an adapter • RAID 0, 1, 10, 5, 50 for basic RAID adapters • Advanced adapters also support RAID 6, 60

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Features and specifications

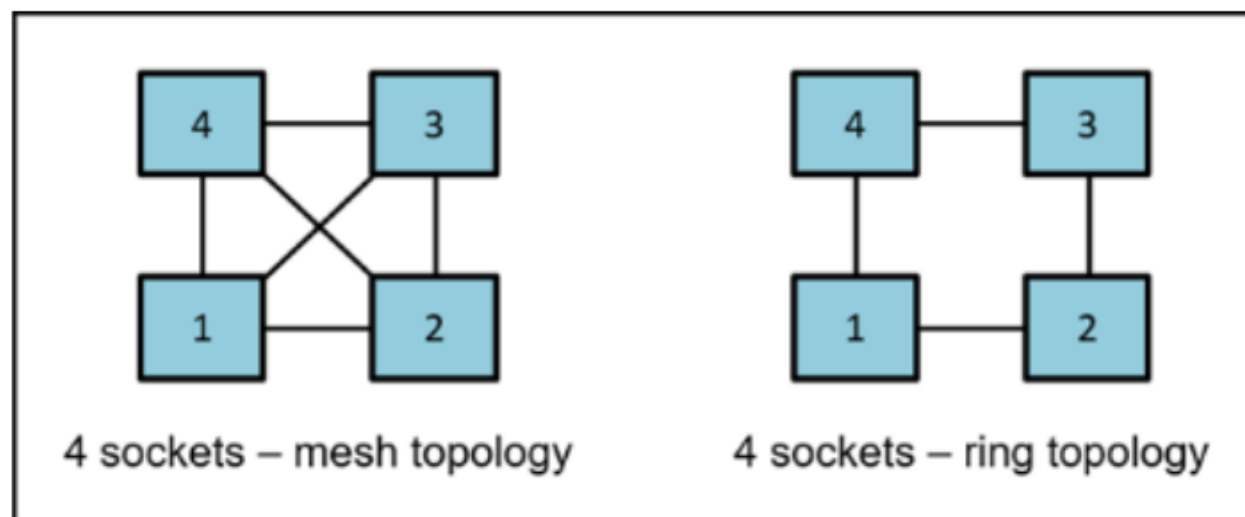|	
Networking	• Embedded selectable LOM module, up to four ports • ML2 available via an optional riser • 1 GbE dedicated management port
PCIe	There are up to ten PCIe slots including a slot reserved for the M.2 adapter. Seven slots are on the system board, and three (slots 3-5) are available through a riser card. Three riser cards are available. All ten slots are available with two processors. The slots are as follows: • Slot 1: PCIe 3.0 x16 (low profile) • Slot 2: PCIe 3.0 x8 (low profile) • Slot 3-5: Riser card slots • Slot 6: PCIe 2.0 x2 / 6 Gb SATA slot reserved for M.2 adapter and drives • Slot 7: Reserved for Ethernet LOM adapter • Slot 8: PCIe 3.0 x8 (low profile) • Slot 10: PCIe 3.0 x16 (low profile) • Slot 11: PCIe 3.0 x16 (low profile)
Power supply	Up to two hot-swap redundant ac power supplies (all 80 PLUS Platinum certification): 750 W, 1100 W, 1600 W, and 2000 W ac options, supporting 220 V ac.
System management	XClarity Controller embedded management, XClarity Administrator centralized infrastructure delivery, XClarity Integrator plugins, and XClarity Energy Manager centralized server power management. XClarity Controller Advanced and XClarity Controller Enterprise are optional with a software license upgrade.

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	• Slot 7: Reserved for Ethernet LOM adapter • Slot 8: PCIe 3.0 x8 (low profile) • Slot 10: PCIe 3.0 x16 (low profile) • Slot 11: PCIe 3.0 x16 (low profile)
Power supply	Up to two hot-swap redundant ac power supplies (all 80 PLUS Platinum certification): 750 W, 1100 W, 1600 W, and 2000 W ac options, supporting 220 V ac.
System management	XClarity Controller embedded management, XClarity Administrator centralized infrastructure delivery, XClarity Integrator plugins, and XClarity Energy Manager centralized server power management. XClarity Controller Advanced and XClarity Controller Enterprise are optional with a software license upgrade.
Cooling	Six N+1 redundant hot-swap 60-mm fans (all six standard)
Security	• TPM 1.2 and TPM2.0 • For China only: TCM
Operating Systems supported	• Supported and Certified • Windows Server 2012 R2 • Windows Server 2016 • SUSE Linux ES 12 SP2 / 11 SP4 • Red Hat RHEL 7.3 / 6.9 • VMware ESXi 6.5 / 6.0 U3

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Mesh UPI Connectivity

The SR850P processor and memory expansion tray is used to enable two additional processors and 24 additional DIMM slots. When two processors are installed, the processors are connected using one Intel Ultra Path Interconnect (UPI) link. When four processors are installed, the processors are connected with a mesh topology using three UPI links. This means each processor is directly connected to every other processor. Intel Xeon 5100 Series processors do not support mesh topology as they only have two UPI ports.

4 sockets – mesh topology   4 sockets – ring topology

Note: The Lenovo SR950 and SR850P both currently support Intel mesh topology.