

Lenovo ThinkServer RD650

Incredible storage density and flexibility for enterprise applications



Highly Flexible Design

With the Lenovo ThinkServer RD650, you can run more workloads than ever before. Built with the latest Intel® Xeon® processors E5-2600 v4 Series (up to 44 cores per system), expansive memory capacity, and flexible storage configurations and I/O options, the RD650 can easily be tailored to your business needs. For example, the RD650 offers a unique hybrid storage option with nine 3.5-inch and six 2.5-inch drive bays in the front and two 2.5-inch drive bays in the back—ideal for tiered storage environments. With up to 100TB of local storage capacity, the RD650 is also excellent for database, data analytics, and video streaming workloads.

Leveraging the Lenovo AnyFabric and AnyRAID designs, the RD650 can house up to four 10Gb Ethernet ports and your choice of RAID adapter—without consuming PCIe slots. Two additional enterprise-class M.2 solid-state drives (SSDs) are available for secure booting, as well as an SD card option for hypervisor booting. Up to nine expansion slots give you plenty of bandwidth to scale your I/O. For ultimate performance, the industry-unique Lenovo AnyBay design allows multiple storage types in the same drive bay, including fast, front-accessible NVMe PCIe SSDs.

Extra-Reliable Performance

Lenovo servers have consistently achieved the highest reliability of all x86 servers in the industry. With its dynamic environmental design, the RD650 can run at 45°C continuously—with no impact on reliability. Other high-reliability features include ECC memory, RAID, hot-swap hard-disk and solid state drives, and hot-swap and redundant power and cooling.

Simplified Management

Centrally automate discovery, inventory tracking, real-time monitoring, fault detection, and alert handling over the lifecycle of your servers with [Lenovo XClarity](#), a best-in-class enterprise management tool. A mobile option enables you to securely monitor your systems from Android and iOS devices.

Additionally, the RD650 offers a suite of intuitive administration utilities for configuration and deployment. [Lenovo XClarity Energy Manager](#) is available for optimizing your server power consumption.

Why Lenovo

Lenovo is the leading provider of x86 systems for the data center. The portfolio includes rack, tower, blade, dense and converged systems, and supports enterprise class performance, reliability and security. Lenovo also offers a full range of networking, storage, software and solutions, and comprehensive services supporting business needs throughout the IT lifecycle.



Specifications

Form Factor/Height	2U Rack
Processor (max)/Cache (max)	Up to two 22-core Intel® Xeon® processors E5-2600 v4 Series/Up to 55MB per processor
Memory	Up to 1.5TB DDR4 - 2400 MHz via 24 slots (RDIMM/LRDIMM)
Media Bays	1 x slim optical (in select 2.5" chassis configurations)
Disk Bays	Up to 12 x 3.5" front + up to 2 x 2.5" rear (rear drives SATA only) or up to 24 x 2.5" front + up to 2 x 2.5" rear(*) or up to 9 x 3.5" front + up to 6 x 2.5" front + up to 2 x 2.5" rear (rear drives SATA only)
Maximum Internal Storage	Up to 100TB
RAID Support	ThinkServer RAID 110i AnyRAID (0/1/10, optional 5); ThinkServer RAID 510i AnyRAID, 520i PCIe RAID Adapter (0/1/10, optional 5/50); ThinkServer RAID 720i, 720ix, 720i PCIe AnyRAID Adapter (0/1/10/5/50/6/60)
Power Supply	Redundant hot-swap 550W/750W/1100W (80 PLUS Platinum), 110V to 240V AC input, HVDC Ready, 750W (80 PLUS Titanium), 200V to 240V AC input 1600W (80 PLUS Platinum), 200V to 240V AC input
Network Interface	1 x Integrated Gb Ethernet (Dedicated mgmt port); 1 x AnyFabric slot with choice of Ethernet NIC, Fibre Channel HBA or CNA
Expansion Slots	1CPU: 3x PCIe 3.0 FH/HL x8, 1x AnyFabric; 2CPU: As 1CPU plus 3xPCIe 3.0 LP x8, 2x PCIe 3.0 FH/HL x8
USB Ports/VGA Ports	2x USB 2.0 front, 2x USB 3.0 rear, /1 front, 1 rear
Energy Efficiency	Up to 45°C, operating temperature (ASHRAE 4 Compliant); Redundant hot-swap fans with 1 processor or 6 redundant hot-swap fans with 2 processors
Systems Management	Lenovo XClarity Administrator with mobile option; Lenovo XClarity Pro software bundle; ThinkServer System Manager; ThinkServer System Manager Premium; Lenovo XClarity Energy Manager
Operating Systems Supported	Microsoft Windows Server, Hyper-V; SUSE Linux Enterprise Server; Red Hat Enterprise Linux; VMware vSphere ESXi

Options

<p>ThinkServer 16 GB DDR4 - 2400 RDIMM</p> <p>4X70G88319</p> <p>Boost the capabilities of your ThinkServer system and increase performance.</p>	<p>Lenovo ThinkServer RAID 720i 2 GB Modular Flash and Supercapacitor Upgrade</p> <p>4XB0F28697</p> <p>Cache for faster performance, with storage tiering and SSD array acceleration</p>	<p>ThinkServer OCm14104-UX-L AnyFabric 10 Gb 4P SFP+ CNA by Emulex</p> <p>4XC0F28744</p> <p>Leverage the bandwidth potential of your network and scale your I/O.</p>
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For More Information

To learn more about the Lenovo ThinkServer RD650, contact your Lenovo Business Partner or visit lenovo.com/systems/servers

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