Lenovo ThinkSystem

Lenovo ThinkAgile

Lenovo

LENOVO SOLUTIONS FOR THE EDGE TO THE DATA CENTER

Portfolio Guide

LENOVO PRESS

May 2025

Contents

ENABLING THE FUTURE

By providing the strongest foundation of performance, reliability and security in the industry, Lenovo delivers an Edge to Cloud portfolio of compute, storage and networking capabilities that seamlessly integrate and interoperate with any environment. To accelerate deployment and reduce time-to-value, Lenovo offers a suite of pre-tested and pre-engineered solutions, ready-to-deploy clients' workloads. Every phase of the IT lifecycle is taken care of by Lenovo Services, which help clients deliver the most from their technology investment.

- **Most reliable:** Lenovo servers ranked No.1 in uptime of any x86 systems for the past 10 years running, according to 2024 ITIC reliability survey[1].
- **Most secure:** Lenovo provides the best and most airtight platform security with our Trusted Platform Assurance. Even after adding options at additional cost, our competitors offer fewer security capabilities than come standard on Lenovo ThinkSystem.
- **Strategic Relationships:** Unlike our major competitors, Lenovo does not have a proprietary software business and remains more open for industry leading partnerships. Because of this, Lenovo's customers can benefit from an open standards strategy that allows them to grow and change their IT systems as needed.

With our ever-growing portfolio, powered by the Intel® Xeon® processor family and AMD EPYC™ processor, with open, modular technologies designed to adapt easily and scale quickly, Lenovo's clients can excel and accelerate into the future. Find out more about:

- **ThinkSystem:** Server, storage and networking solutions that deliver the industry's best combination of performance, flexibility, and reliability.
- **ThinkAgile:** Next generation IT software-defined infrastructure that's easier to deploy and manage, and reduces costs and complexity.
- **ThinkEdge:** Unleash the power of AI solutions at the Edge, by taking purpose built server compute power closer to the source of the data.

[1] ITIC 2024 Global Hardware, Server OS Reliability Report.

Lenovo ThinkSystem Lenovo ThinkAgile

DATA CENTER AND EDGE INFRASTRUCTURE

By providing the strongest foundation of performance, reliability and security in the industry, Lenovo delivers an end-to-end portfolio of compute, storage and networking capabilities that seamlessly integrate and interoperate with any environment.

Lenovo

ThinkSystem RACK & TOWER SERVERS

Flexible for even the most demanding workloads

Driving new levels of storage density and connectivity, Lenovo ThinkSystem servers powered by Intel® Xeon® processor family and AMD EPYC™ processor are ideal platforms to host private and public cloud, virtualisation, VDI, web serving, analytics, and big data solutions.

Trust Lenovo to be your expert. Single point of contact for hardware, firmware, and software support.

If you would like to find out more specific details regarding the products below, please visit our Servers & Storage Page, remember to scroll down to find the products you are looking for.

If you are looking for a feature comparison visit our dedicated Server Comparison Page.

Lenovo ThinkSystem

TOWER SERVERS

Spec Category	ThinkSystem ST650 V3	ThinkSystem ST250 V3
		
Form Factor	4U rackable tower	4U rackable tower
Processor	Up to 2x 5th Gen Intel® Xeon® Scalable processors, up to 250W	1x Intel® Xeon® E-2400/6300-series processor or 1x Intel® Pentium® processor
GPU Support	Up to 8x single-width or 4x double-width GPUs	Optional NVIDIA Quadro T1000 or NVIDIA Quadro T400 GPU
Memory	Up to 32x TruDDR5 DIMM slots	Up to 4x TruDDR5 UDIMM slots
Drive Bays	Up to 32x 2.5" bays (including 24 NVMe bays) or 16x 3.5" bays (including 16 NVMe bays)	Flexible enterprise storage options with up to 16x 2.5" hot-swap or 8x 3.5" hot-swap and simple-swap drive bays
Expansion Slots	Up to 9x PCIe Slots (5x PCIe 5.0 and 4x PCIe 4.0)	4x PCIe slots (1x Gen5, 3x Gen4), including 1x PCIe Gen5 x16 slot
Product Guide		

Lenovo ThinkSystem

TOWER SERVERS

Spec Category	ThinkSystem ST50 V3 	ThinkSystem ST45 V3 	ThinkSystem ST550 
Form Factor	4U rackable tower	4U rackable tower	4U rackable tower
Processor	1x Intel® Xeon® E-2400/6300-series processor or 1x Intel® Pentium® processor, up to 8 cores at 95W	1x AMD EPYC™ 4004 Processor, up to 12 cores at 65W	Up to 2x 2nd Gen Intel® Xeon® Platinum processors 125W, up to 22 cores per CPU
GPU Support	No support for GPU	Not supported	Supports up to 2x GPUs
Memory	Up to 4x TruDDR5 UDIMM slots	Up to 64GB TruDDR5 memory	Up to 12x TruDDR4 RDIMM slots
Drive Bays	Flexible enterprise storage options with up to 3x 3.5” HDD; 1x 2.5” HDD; 1x ThinkSystem M.2 SATA 2-Bay Enablement Adapter	Flexible enterprise storage options with up to 3x 3.5” HDD; 1x 2.5” HDD; 2x ThinkSystem NVMe M.2	Up to 16x 2.5” (including 4 NVMe) or 8x 3.5” bays; Plus up to 4x 2.5” and 2x internal M.2 boot
Expansion Slots	1x Gen5 PCIe x16 slot, 2x Gen4 PCIe x4 slots	1x PCIe Gen3 x16, 1x PCIe Gen3 x1	Up to 6x PCIe Gen3 (with 2x processors)
Product Guide			

Lenovo ThinkSystem

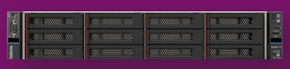
RACK Servers

Spec Category	ThinkSystem SR650 V4 	ThinkSystem SR650a V4 
Form Factor	2U rack	2U rack
Processor	Up to 2x Intel® Xeon® 6 processors	Up to 2x Intel® Xeon® 6 processors
GPU Support	Up to 10x single-width or 2x double-width GPUs	Up to 8x single-width or 4x double-width GPUs
Memory	Up to 32x TruDDR5 RDIMMs; Up to 16x TruDDR5 MRDIMMs; Up to 16x CXL memory module	Up to 32x TruDDR5 RDIMMs; Up to 16x TruDDR5 MRDIMMs
Drive Bays	Front: Up to 24x 2.5” or 32x E3.S or 12x 3.5” Mid: Up to 8x 2.5” Rear: Up to 8x 2.5” or 4x 3.5”	Up to 8x low-latency 2.5” and E3.S NVMe drives
Expansion Slots	Up to 10x PCIe Gen5 slots + 2x OCP 3.0 slots	Up to 14x PCIe Gen5 slots + 2x OCP 3.0 slots
Product Guide		

Lenovo ThinkSystem

Spec Category	ThinkSystem SR630 V4 	ThinkSystem HS350X V3 
Form Factor	1U rack server	2U
Processor	Up to 2x Intel® Xeon® 6 processors	1x 4th or 5th Gen Intel® Xeon® Scalable processor
GPU Support	Up to 3x single-width 75W GPUs	Not Supported
Memory	Up to 32x TruDDR5 RDIMMs/MCRDIMMs, and CXL 2.0 PCIe memory expansion	16x TruDDR5 RDIMMs
Drive Bays	Up to 12x 2.5” or 16x EDSFF E3.S	Up to 24x 3.5” and 2x 2.5” hot-swap drive bays
Expansion Slots	Up to 3x PCIe 5.0 slots, 2x OCP 3.0 slots	Riser 1: x8 FHHL+ x16 FHHL PCIe Gen4 Riser 2: x16 HHHL PCIe Gen4, and 1x OCP 3.0 PCIe Gen5 slot
Product Guide		

Lenovo ThinkSystem

Spec Category	ThinkSystem SR665 V3 	ThinkSystem SR655 V3 
Form Factor	2U rack	2U rack
Processor	Up to 2x 5th Gen AMD EPYC™ Processors	One 5th Gen AMD EPYC™ Processor, up to 160 cores
GPU Support	Up to 8x single-width LP GPUs or 3x double-width 350W GPUs for graphics-intensive workloads	Up to 8x single-width or 3x double-width GPUs for graphics-intensive workloads
Memory	Up to 24x TruDDR5 RDIMM slots	Up to 12x TruDDR5 DIMM slots
Drive Bays	Up to 20x 3.5” or 40x 2.5” drives	Up to 20x 3.5” or 40x 2.5” drives; hot-swap drive bay Combinations of SAS/SATA, NVMe, or AnyBay
Expansion Slots	Up to 12x PCIe slots (9x PCIe 5.0), 1x OCP 3.0 adapter slot	Up to 10x PCIe Gen4/Gen5 slots, 1x OCP 3.0 adapter slot
Product Guide		

Lenovo ThinkSystem

Spec Category	ThinkSystem SR650 V3 	ThinkSystem SR645 V3 
Form Factor	2U rack	1U rack
Processor	Up to 2x 5th Gen Intel® Xeon® Scalable processors	Up to 2x 5th Gen AMD EPYC™ Processors
GPU Support	Up to 8x single-width or 3x double-width GPUs for graphics-intensive workloads	Up to 4x single-width GPUs for graphics-intensive workloads
Memory	Up to 32x TruDDR5 3DS/RDIMMs	Up to 24x TruDDR5 RDIMM slots
Drive Bays	Up to 40x SAS/STA drives or 36x low-latency NVMe drives for high performance storage	Up to 4x 3.5” or 12x 2.5” drives; Up to 16x EDSFF drives for high performance storage
Expansion Slots	Up to 12x PCIe 4.0/5.0 slots + 1 OCP 3.0 slot for I/O flexibility	Up to 3x PCIe 4.0 + 2x PCIe 5.0 slots, 1x OCP 3.0 adapter slot
Product Guide		

Lenovo ThinkSystem

Spec Category	ThinkSystem SR635 V3 	ThinkSystem SR630 V3 
Form Factor	1U rack	1U rack
Processor	One 5th Gen AMD EPYC™ Processor, up to 160 cores	Up to 2x 5th Gen Intel® Xeon® Scalable processors 385W
GPU Support	Up to 4x single-width GPUs for graphics intensive workloads	Supports up to 3x single-width GPUs
Memory	Up to 12x TruDDR5 DIMM slots at 1DPC	Up to 32x TruDDR5 3DS/RDIMMs
Drive Bays	Up to 12x 2.5” hot-swap drive bays; Up to16x EDSFF drives for high performance storage	Up to 4x 3.5” or 12x 2.5” or 16x EDSFF E1.S hot swap drives
Expansion Slots	Up to 5x PCIe 4.0 slots and up to 2x PCIe 5.0 slots; Up to 64x lanes via onboard NVMe connectors	Up to 5x PCIe 4.0/5.0 slots + 1x OCP 3.0 for I/O flexibility
Product Guide		

Lenovo

Lenovo ThinkSystem

Spec Category	ThinkSystem SR250 V3 	ThinkSystem SR630 V2 
Form Factor	1U rack	1U rack
Processor	1x Intel® Xeon® E-2400/6300-series processor or 1x Intel® Pentium® processor	Up to 2x 3rd Gen Intel® Xeon® Scalable processors 270W, up to 40C per CPU
GPU Support	Optional NVIDIA T1000/T400 GPU	Supports up to 3x single-width GPUs
Memory	Up to 4x TruDDR5 UDIMM slots	Up to 32x TruDDR4 RDIMM slots; Intel® Optane™ PMem 200 Series
Drive Bays	4x 3.5” simple-swap/hot-swap or 10x 2.5” hot-swap HDDs/SSDs, also support 2x 3.5” simple-swap NVMe	Front & rear drive bays of various 2.5”, 3.5” and EDSFF drives; up to 12x NVME drives supported; 2x M.2 boot drives
Expansion Slots	1x PCIe Gen5 x16 slot or 2x PCIe Gen4 x8 slots	Up to 3x PCIe 4.0 slots, 1x OCP 3.0 slot, 1x cabled HBA/RAID adapter
Product Guide		

Lenovo ThinkSystem

Spec Category	ThinkSystem SR665 	ThinkSystem SR645 
Form Factor	2U rack	1U rack
Processor	Up to 2x AMD EPYC™ 7002 / 7003 Series processors 280W, up to 64 cores	Up to 2x AMD EPYC™ 7002 / 7003 Series processors 280W, up to 64 cores per CPU
GPU Support	Supports up to 8x single-width or 3 double-width GPUs	Supports up to 3x single-width GPUs
Memory	Up to 32x TruDDR4 RDIMM slots	Up to 32x TruDDR4 RDIMM slots
Drive Bays	Up to 20x 3.5” or 40x 2.5” hot-swap drives	Up to 4x 3.5” or 12x 2.5” drives; Maximum of 12x NVMe drives with 1:1 connection
Expansion Slots	Up to 8x PCIe 4.0 slots, 1x OCP 3.0 adapter slot	Up to 3x PCIe 4.0 slots, 1x OCP 3.0 adapter slot
Product Guide		

Lenovo ThinkSystem

New open-loop liquid cooling on SR650 V3, SR630 V3, SR645 V3 and SR665 V3

For customers looking to maximize energy efficiency in the data center without sacrificing CPU performance, the SR650 V3, SR630 V3, SR645 V3 and SR665 V3 servers now offer advanced direct-water cooling (DWC) capability with the **Lenovo Neptune Processor DWC Module.**

With the Neptune Processor DWC Module, all heat generated by the processors is removed from the server using water. This means that the server fans and data center air conditioning units only need to remove the heat generated by the other components. This results in lower air conditioning costs and it enables the use of slower fans which results in lower overall power consumption.

Typical power saving of 26% (up to 17.2KW per rack) are possible, based on 35x SR630 V3 servers in a rack (DC level PUE weighted) at 30°C ambient temperature. With 18x SR650 V3 servers in a rack, typical power saving of 23% (up to 9.9KW per rack) are possible. Power savings are configuration dependent.

The following figure shows the Neptune Processor DWC Module installed in the SR630 V3

GPU Rich Servers for AI

Built for Compute-Intensive AI

The Lenovo ThinkSystem AI portfolio, featuring NVIDIA H100/H200 GPUs or AMD MI300X GPUs, are purpose-built to deliver massive computational capabilities with uncompromised power efficiency to accelerate AI implementation. Lenovo ThinkSystem AI servers are set to power the new era of generative AI.

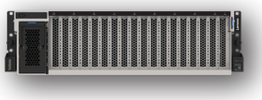
Spec Category	ThinkSystem SR780a V3 	ThinkSystem SR685a V3 
Form Factor	5U rack	8U rack
Processor	2x 5th Gen Intel® Xeon® Scalable processors	2x 4th Generation AMD EPYC™ processors
GPU Support	8x NVIDIA HGX™ H100/H200/B200 GPUs	8x AMD Instinct™ MI300x or NVIDIA H100/ H200 GPUs
Memory	32x TruDDR5 RDIMM slots	Up to 24x TruDDR5 RDIMM slots
Drive Bays	Up to 12x U.2 or U.3 hot-swap NVMe SSDs	Up to 16x 2.5" NVMe drives
Expansion Slots	Up to 10x PCIe Gen5 x16 adapters (8 front, 2 rear)	Up to 10x PCIe Gen5 x16 adapters
Product Guide		

Lenovo ThinkSystem

Spec Category	ThinkSystem SR680a V3 	ThinkSystem SR675 V3 
Form Factor	8U rack	3U rack
Processor	2x 5th Gen Intel® Xeon® Scalable processors	1x or 2x 5th Gen AMD EPYC™ Processors per node
GPU Support	8x NVIDIA SXM H100/H200	Up to 8x DW, 4x SXM5
Memory	32x TruDDR5 RDIMM slots	Up to 24x TruDDR5 RDIMM slots
Drive Bays	Up to 16x 2.5” NVMe drives	Up to 8x 2.5” hot-swap SAS/SATA/NVMe drives, 6x E1.S hot-swap NVMe SSDs, 4x E3.S hot-swap NVMe SSDs Various base, dense and HGX module configurations
Expansion Slots	Up to 10x PCIe Gen5 x16 adapters (8 front, 2 rear)	Up to 6x PCIe 5.0 x16 adapters (2 front, 4 rear) and 1x OCP NIC 3.0 (x16/x8/x4) (rear)
Product Guide		

Lenovo

Lenovo ThinkSystem

Spec Category	ThinkSystem SR670 V2 
Form Factor	3U rack
Processor	2x 3rd Gen Intel® Xeon® Scalable processors 270W, up to 40 cores per CPU
GPU Support	Up to 8x double-wide PCIe GPUs or 4x SXM GPUs
Memory	Up to 32x TruDDR4 RDIMM slots; Intel® Optane™ PMem 200 Series
Drive Bays	Various base, dense and HGX module configurations
Expansion Slots	Up to 4x PCIe 4.0 x16 adapters (2 front or 2-4 rear) and 1x PCIe 4.0 x16 OCP 3.0 mezz adapter (rear)
Product Guide	

Lenovo

Lenovo ThinkSystem

ThinkSystem HIGH END

Designed with your mission-critical workloads in mind

Lenovo's high-end rack servers are suited for heavy vertical workloads, virtualisation and legacy system replacements. The ThinkSystem portfolio brings new models designed for your most demanding, mission-critical workloads, such as in-memory databases, large transactional databases, batch and real-time analytics, ERP, CRM, and virtualised server workloads.

Everything within reach. Unmatched scalability with 4S & 8S in one 4U platform, modular drive tray, highest drive density, front and rear access for 12% faster serviceability.

For more specific details regarding the products below, our Servers & Storage Page.

If you are looking for a feature comparison visit our dedicated Server Comparison Page.

All our rack servers can be found at Lenovo ISG Rack Servers.

Lenovo

Lenovo ThinkSystem

Spec Category	ThinkSystem SR950 V3 	ThinkSystem SR860 V3 
Form Factor	8U rack	4U rack
Processor	8x 4th Gen Intel® Xeon® Scalable processors	2x or 4x 4th Gen Intel® Xeon® Scalable processors, up to 350W
GPU Support	No GPU support	Up to 4 double-width or 8 single-width GPUs
Memory	Up to 128x DDR5 DIMMs	Up to 64 DDR5 RDIMMs or 3DS RDIMMs
Drive Bays	Up to 16x E3.S EDSFF PCIe 5.0 NVMe or up to 16x 2.5” SAS/SATA SSDs	Up to 48x 2.5” drives; Supports up to 24x direct connection NVMe drives; 2x 7mm or 2x M.2 drives for boot
Expansion Slots	Support 6x FHHL x16 Gen5 slots at front Support up to 8x FHHL x16 Gen4 slots at rear Support up to 1x rear OCP (supports NCSI)	Up to 18x PCIe 4.0/5.0 + 2x OCP 3.0 slots
Product Guide		

Spec Category	ThinkSystem SR850 V3 
Form Factor	2U rack
Processor	2x or 4x 4th Gen Intel® Xeon® Scalable processors, up to 350W
GPU Support	Up to 2 double-width or 4 single-width GPUs
Memory	Up to 64 DDR5 RDIMMs or 3DS RDIMMs
Drive Bays	Up to 24x 2.5” drives; Supports up to 24x direct connection NVMe drives; 2x 7mm or 2x M.2 drives for boot
Expansion Slots	Up to 12x PCIe 4.0/5.0 + 2x OCP 3.0 slots
Product Guide	

Lenovo

Lenovo ThinkSystem

ThinkSystem SUPERCOMPUTING Servers

Ready to adapt when you are

Powerful platforms for compute-intensive workloads, ranging from technical computing, to grid deployments, to analytics workloads, to large-scale cloud and virtualisation infrastructures.

Lenovo ThinkSystem Supercomputing servers combine the latest Intel or AMD processors and Lenovo's market-leading water cooling solution, which results in extreme performance in an extreme dense packaging.

Direct water cooling is part of Lenovo's Neptune family of liquid cooling technologies which drive both greater energy efficiency and higher performance. Lenovo Neptune's approach uses liquid cooling to dissipate heat from systems with high thermal output, which, combined with Energy Aware Run time environments, enables data centers to run up to 40% more efficiently while maintaining uncompromised performance and preserving a dense data center footprint.

With direct water cooling, Lenovo drives increased compute density, performance, and cooling efficiency for High Performance Computing and other workloads that require dense compute performance, such as Cloud, Grid, and Analytics. Direct water cooling is achieved by circulating the cooling water directly through cold plates that contact the CPU thermal case, DIMMs, and other high-heat-producing components in the server.

One of the main advantages of direct water cooling is the water can be relatively warm and still be very effective, as water conducts heat much more effectively than air. Depending on the server configuration, up to 100%* of the heat is removed by water cooling; the rest can easily be managed by a standard computer room air conditioner. With allowable inlet temperatures for the water being as high as 50°C (122°F), in many cases the water can be cooled by using ambient air and chilled water and a heat exchanger is not required.

*Depending on the environment (ie. water temp.)

Lenovo ThinkSystem

Spec Category	ThinkSystem SC777 V4	ThinkSystem SC750 V4	ThinkSystem SD650-N V3
			
Form Factor	NVIDIA GB200 NVL4 platform	2 nodes per vertical 21" SC750 V4 tray	Full-wide 1U tray; 6 trays per chassis
Processor	2x Grace processors, 72 Arm® Neoverse V2 cores each processor	2x Intel® Xeon® 6900-series processors	2x 5th Gen Intel® Xeon® Scalable processors per tray or 2x Intel® Xeon® CPU Max Series processors per tray
GPU Support	4x NVIDIA Blackwell B200	No GPU support	4x NVIDIA HGX™ H100 GPUs with NVLink for acceleration
Memory	Up to 480GB LPDDR5X / Up to 512GB/s each processor Up to 384GB HBM3e / Up to 16TB/s each GPU	Up to 24x TruDDR5 RDIMMs or MCRDIMM	Up to 480GB LPDDR5X / Up to 512GB/s each processor Up to 384GB HBM3e / Up to 16TB/s each GPU
Drive Bays	Up to 10x E3.S NVMe SSDs per tray	Up to 6x E3.S NVMe drives	Up to 10x E3.S NVMe SSDs per tray
Expansion Slots	Up to 6x PCIe 5.0 x16 slots	Up to 2x PCIe Gen5 x16 LP slots, 25Gb LOM	NVIDIA ConnectX-7 4-chip VPI PCIe Gen5 Mezz Board for GPUDirect I/O
Product Guide			

Lenovo ThinkSystem

Spec Category	ThinkSystem SD650 V3 	ThinkSystem SD665 V3 
Form Factor	Full-wide 1U tray; 2 nodes per tray	6U rack-mount with up to 6 trays
Processor	2x 5th Gen Intel® Xeon® Scalable processors per node	Up to 2x 5th Gen AMD EPYC™ Processors 400W, up to 160 cores
GPU Support	No GPU support	No GPU support
Memory	Up to 16x TruDDR5 RDIMMs	Up to 24x 128GB TruDDR5 RDIMM slots
Drive Bays	Up to 4x 7mm or 2x 15mm U.2/SATA, no drive/backplane choice and 1 x liquid cooled M.2 NVMe SSD, providing both the boot drive and storage function	Up to 4x SSDs/NVMe U.2; 1x M.2 local storage
Expansion Slots	2x x16 PCIe Gen5 LP slots	Support for InfiniBand
Product Guide		

Spec Category	ThinkSystem SD665-N V3 
Form Factor	Full-wide 1U tray; 1 node + GPUs per tray
Processor	1x or 2x 5th Gen AMD EPYC™ processors
GPU Support	4x NVIDIA HGX™ H100 GPUs with NVLink for acceleration
Memory	Up to 12x TruDDR5 RDIMMs
Drive Bays	Up to 2x 2.5” NVMe SSDs (7mm height) or 1x 2.5” NVMe SSDs (15mm height) per node
Expansion Slots	NVIDIA Connect X-7 4-chip VPI PCIe Gen5 Mezz Board for GPU direct I/O
Product Guide	

Lenovo

Lenovo ThinkSystem

ThinkSystem MULTI-NODE Servers

High Density, High Core Count, High Performance

Lenovo multi-node systems for compute-intensive workloads provide maximum core density in an easy-to-scale architecture. Increase your workloads in a smaller space while realizing energy-efficient dense processing

Spec Category	ThinkSystem SD550 V3 	ThinkSystem SD535 V3 
Form Factor	2U half-width multi-node dense server (node)	1U1S multi-node half-width server
Processor	2x 5th Gen Intel® Xeon® Scalable processor	1x 5th Gen AMD EPYC™ Processor, up to 500W
GPU Support	Up to 2x single-wide GPUs	1x 75W GPU
Memory	Up to 16x TruDDR5 RDIMMs	Up to 12x TruDDR5 RDIMMs
Drive Bays	Up to 6x 2.5" SAS/SATA/NVMe SSDs and 2x M.2 NVMe boot drives per node	Up to 6x 2.5" SAS/SATA/NVMe SSDs or 2x M.2 NVMe/SATA onboard drives
Expansion Slots	1x PCIe Gen5 x16 and 1x PCIe Gen4 HHHL slot, 1x OCP 3.0 slot	1x PCIe Gen5 x16 HHHL slot and 1x OCP 3.0 slot
Product Guide		

Lenovo ThinkSystem

Spec Category	ThinkSystem SD530 V3 
Form Factor	1U half-width multi-node dense server (node) 4 nodes can be installed in a 2U enclosure
Processor	2x 5th Gen Intel® Xeon® Scalable processors
GPU Support	1x 75W GPU
Memory	Up to 16x TruDDR5 RDIMMs
Drive Bays	Up to 2x E3.S EDSFF drives per node
Expansion Slots	1x PCIe Gen5 x16 HHHL slot and 1x OCP 3.0 slot
Product Guide	

Lenovo

Lenovo ThinkSystem

ThinkSystem and ThinkEdge EDGE SOLUTIONS

Overview

The world is more connected than ever, and most data is now being generated outside of the data center. Lenovo is here to help you speed things up by defining your IoT strategy and bringing compute capabilities wherever you need them. We also bring AI to the edge for faster processing with purpose-built solutions that use high-performance GPUs and your choice of integrated storage and data management.

Benefits

Our edge servers are rugged and secure with ThinkShield protection- covering physical tamper- proofing, secure BIOS and data encryption, and the ability to withstand conditions of all kinds. With a range of capabilities from small IoT devices to larger multi GPU systems, no matter what you need, we'll find the right solution for you.

Spec Category	ThinkEdge SE455 V3 	ThinkEdge SE350 V2 
Form Factor	2U	1U
Processor	1x AMD EPYC™ 8004 Series Processor	1-socket Intel® Xeon® D-2700, up to 16 cores
GPU Support	Up to 6x single-width GPUs or 2x double-width GPUs	No GPU support
Memory	Up to 768GB in 6x slots using 128GB RDIMMs	Up to 256GB in 4x slots using 64GB DIMMs
Drive Bays	Up to 8x SATA/NVMe 2.5" 15mm drives	4x 2.5" 7mm HS NVMe/SATA drives / 2x 2.5" 15mm HS NVMe/SATA drives
Expansion Slots	Up to 2x PCIe 5.0 x16 slots + 4x PCIe 4.0 x8 slots + 1x OCP 3.0 PCIe 5.0 x16 slot	N/A
Product Guide		

Lenovo ThinkEdge

Spec Category	ThinkEdge SE360 V2 	ThinkEdge SE450 
Form Factor	2U	2U
Processor	1-socket Intel® Xeon® D-2700, up to 16 cores	1x 3rd Gen Intel® Xeon® Platinum processor, up to 36 cores
GPU Support	Support for GPU, FGPA, ASIC accelerators	Up to 4x single-width or 2x double-width GPUs
Memory	Up to 256GB in 4x slots using 64GB DIMMs	Up to 1TB in 8x slots using 128GB DIMMs; 10x DDR4 memory slots; 2x Intel® Optane™ PMem 200 Series
Drive Bays	Up to 2x SATA/NVMe 2.5” 7mm drives HS	Up to 6x 2.5-inch 7mm drives; Up to 6x NVMe drives supported; 2x M.2 boot drives (RAID 1)
Expansion Slots	1x PCIe G4 x16 HHHL + 1x PCIe G4 x16 FHHL	Up to 4x PCIe 4.0 slots, 1x OCP 3.0 slot
Product Guide		

Spec Category	ThinkEdge SE100 
Form Factor	1U
Processor	1x Intel® Core™ Ultra 7 processor 255H 1x Intel® Core™ Ultra 5 processor 225H
GPU Support	Optional 1x GPU
Memory	Up to 64GB in 2x slots using 32GB DDR5 DIMMs
Drive Bays	No Support for 2.5”/3.5” SSD/HDD drives
Expansion Slots	1x PCIe G4 x8 HHHL
Product Guide	

For more information on Edge solution visit

Lenovo

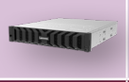
Lenovo ThinkEdge

STORAGE

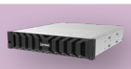
Lenovo offers a wide range of enterprise grade storage solutions that address the ever-growing needs of businesses, fit into existing budget, and ensure data is ready when it is needed. The offering includes key data efficiency features like data compression and compaction along with thin provisioning and data encryption, all through a user-friendly interface. Protect your business: On-board encryption, multi-factor authentication and synchronous replication headline a host of leading data management features.

ThinkSystem DM Series

The ThinkSystem DM Series all-flash and hybrid-flash portfolio is cloud, virtualisation and AI ready. Optimise, accelerate, and consolidate your data with SAN and NAS unified in one system.

Sub-Series	**DM Hybrid Systems**			
Model	**DM7100H** 	**DM5200H** 	**DM5000H** 	**DM3010H** 
Target Workloads	Hybrid Cloud, Artificial Intelligence, Big Data Analytics, Engineering and Design	Artificial Intelligence, Archive / Backup, Big data and Analytics	Artificial Intelligence Data Analytics Enterprise Applications Engineering and Design	Hybrid Cloud, Microsoft applications, virtualization and I/O-intensive applications
Max Drives per HA Pair (HDD/SSD)	720	480	144	144
Maximum Raw Capacity per HA Pair	11.2PB	11.5PB	2.3PB	2.3PB
Expansions Supported	DM240S, DM120S, DM600S			
Protocols Supported	FC, iSCSI, NFS, pNFS, CIFS/SMB, S3			
DM Series Hybrid Software	The DM Series software bundle includes a set of products that delivers leading data management, storage efficiency, data protection, high performance, and advanced capabilities such as instant cloning, data replication, application-aware backup and recovery, and data retention.			
Product Guide				

Lenovo ThinkSystem

Sub-Series	DM Series-Flash		
Model	**DM7200F** 	**DM5200F** 	**DM3200F** 
Target Workloads	Wide range of enterprise workloads, including big data and analytics, artificial intelligence, engineering and design, hybrid clouds, and other storage I/O-intensive application.		
Max Drives per HA Pair (SSD)	120 NVMe	72 NVMe	48 NVMe
Maximum Raw Capacity per HA Pair	1.8PB	1.1PB	737TB
Expansions Supported	DM240N, DM242N		
Protocols Supported	FC, iSCSI, NFS, pNFS, SMB, NVMe/FC, S3		
DM Series Software	The DM Series software bundles include a set of products that delivers leading data management, storage efficiency, data protection, high performance, and advanced capabilities such as instant cloning, data replication, application-aware backup and recovery, and data retention.		
Product Guide			

Lenovo

Lenovo ThinkSystem

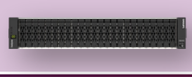
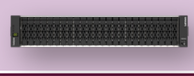
Sub-Series	DM All-Flash Systems		
Model	**DM7100F** 	**DM5100F** **DM5100F SAN** 	**DM5000F** **DM5000F SAN** 
Target Workloads	Wide range of enterprise workloads, including big data and analytics, artificial intelligence, engineering and design, hybrid clouds, and other storage I/O-intensive application		
Max Drives per HA Pair (SSD)	480 (96 NVMe + 384 SAS)	48 NVMe	144 SAS
Maximum Raw Capacity per HA Pair	7.34PB	734.4TB	2.2PB
Expansions Supported	DM240S, DM240N	DM240N	DM240S
Protocols Supported	FC, iSCSI, NFS, pNFS, SMB, NVMe/FC, S3	FC, iSCSI, NFS, pNFS, SMB, NVMe/FC, S3 DM5100F SAN: FC, iSCSI, NVMe/FC	FC, iSCSI, NFS, pNFS, SMB, S3 DM5000F SAN: FC, iSCSI
DM Series Software	The DM Series software bundles include a set of products that delivers leading data management, storage efficiency, data protection, high performance, and advanced capabilities such as instant cloning, data replication, application-aware backup and recovery, and data retention.		
Product Guide			

Lenovo

Lenovo ThinkSystem

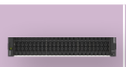
ThinkSystem DE Series

All-flash and hybrid-flash arrays that deliver the perfect combination of performance and economics to handle your most important data needs.

Sub-Series	DE Hybrid Systems		
Model	**DE6400H** 	**DE6600H** 	**DE6000H** 
Target Workloads	Wide range of enterprise workloads, including big data and analytics, video surveillance, technical computing, backup and recovery, and other storage I/O-intensive applications		
Max Drives (HDD/SSD)	264 (24 NVMe in Controller Enclosure + 240 NL-SAS HDDs)	444 (24 NVMe in Controller Enclosure + 420 NL-SAS HDDs)	480 HDDs/120 SSDs
Maximum Raw Capacity	4.68PB	7.92PB	8.4PB
Expansions Supported	2U12, 2U24, 4U60: Up to 4 expansions	2U12, 2U24, 4U60: Up to 7 expansions	2U12, 2U24: Up to 7 expansions 4U60: Up to 3 expansions
Protocols Supported	FC, iSCSI, iSER/IB, NVMe/FC, NVMe/IB, NVMe/RoCE, and SRP/IB	FC, iSCSI, iSER/IB, NVMe/FC, NVMe/IB, NVMe/RoCE, and SRP/IB	FC, iSCSI, SAS
DE Series Optional Software	Snapshots	Snapshots	Snapshots, Synchronous mirroring, Asynchronous mirroring
Product Guide			

Lenovo ThinkSystem

Sub-Series	DE Hybrid Systems			
Model	**DE4000H** 	**DE2000H** 	**DE4800H** 	**DE4200H** 
Target Workloads	Perfect fit for a wide range of enterprise workloads, including big data and analytics, video surveillance, technical computing, backup and recovery, and other storage I/O-intensive applications			
Max Drives (HDD/SSD)	192 HDDs/120 SSDs	48 HDDs/96 SSDs	300 HDDs/120 SSDs	96 HDDs/24 SSDs
Maximum Raw Capacity	3.456PB	1.47PB	7.2PB	2.1PB
Expansions Supported	2U12, 2U24: Up to 7 expansions 4U60: Up to 3 expansions	2U12, 2U24: Up to 3 expansions	2U12, 2U24: Up to 7 expansions 4U60: Up to 4 expansions	2U12, 2U24: Up to 3 expansions
Protocols Supported	FC, iSCSI, SAS			
DE Series Optional Software	Snapshots, Synchronous mirroring (DE4800H and DE4000H only), Asynchronous mirroring			
Product Guide				

Sub-Series	DE All-Flash Systems				
Model	**DE6400F** 	**DE6600F** 	**DE6000F** 	**DE4000F** 	**DE4800F** 
Target Workloads	Perfect fit for a wide range of enterprise workloads, including big data and analytics, technical computing, and other storage I/O-intensive applications				
Max Drives (HDD/SSD)	120 (24 NVMe + 96 SAS SSD)	120 (24 NVMe + 96 SAS SSD)	120	96	120
Maximum Raw Capacity	1.84TB	1.84PB	1.84PB	1.84PB	1.47PB
Expansions Supported	Up to 4 DE240S	Up to 4 DE240S	Up to 4 DE240S	Up to 3 DE240S	Up to 4 DE240S
Protocols Supported	FC, iSCSI, iSER/IB, NVMe/FC, NVMe/IB, NVMe/RoCE, and SRP/IB	FC, iSCSI, iSER/IB, NVMe/FC, NVMe/IB, NVMe/RoCE, and SRP/IB	FC, iSCSI, SAS		
DE Series Optional Software	Snapshots		N/A	Synchronous mirroring	Snapshots, Asynchronous mirroring, Synchronous mirroring
Product Guide					

Lenovo ThinkSystem

ThinkSystem DG Series

The ThinkSystem DG Series all-flash systems utilize cutting-edge NVMe flash technology and offer an exceptional solution for companies of all sizes requiring significant storage capacity within a minimal physical footprint.

Sub-Series	DG All-Flash systems			
Model	**DG5000** 	**DG7000** 	**DG7200** 	**DG5200** 
Target Workloads	Ideal for a variety of applications such as data lakes, backup consolidation, media and rendering, including artificial intelligence, big data and analytics.			
Max Drives (SSD)	48	96	120	72
Max Raw Capacity	1.47PB	2.95PB	7.4PB	2.2PB
Expansions Supported	DG242N 2U24			
Protocols Supported	NVMe/TCP, NVMe/FC, FC, iSCSI, NFS, pNFS, CIFS/SMB, S3			
Product Guide				

Lenovo ThinkSystem

Lenovo Software-Defined Storage

Lenovo software-defined storage solutions are optimized building blocks built on industry-leading ThinkSystem servers and support a wide range of uses cases, including large scale-out file and object storage, hybrid cloud data management, and backup and recovery.

Solution types:

Lenovo ThinkSystem Ready Nodes for HS350X V3

The Lenovo ThinkSystem Ready Nodes for HS350X V3 is versatile solution optimized for scalability, performance, storage, data reliability, and cost efficiency, making it an ideal solution for a wide-range of workloads, including big data analytics, data lakes, data observability, and backup and recovery.

Lenovo High Performance File System Solution powered by WEKA

The Lenovo High Performance File System Solution is a modern file system that is uniquely built to solve big problems that previously had no solution. The Lenovo ThinkSystem server platforms and WekaFS work together to maximize acceleration, reduce training times, and deliver unmatched performance and reliability at scale.

Lenovo Object Storage Solution powered by Cloudian

Lenovo Object Storage Solution Powered by Cloudian brings the scalability and flexibility of the cloud into the data center as part of a hybrid cloud Data Lakehouse solution built on S3, enabling modern data analytics on-premises, reducing capital expenditures, and addressing data sovereignty and privacy regulations.

Lenovo ThinkSystem

LENOVO FIBRE CHANNEL SWITCHES

Combining servers and storage with Fibre Channel SAN switches provides customers a complete, innovative and affordable end-to-end storage solution to address dynamic business needs.

Management without complexity. Simply manage your network through integrated dashboards and easy-to-use GUI.

Model	X7-4 Gen 7 FC Director 	X7-8 Gen 7 FC Director 	ThinkSystem DB730S 
Target Workloads	Designed to easily manage large enterprise environments requiring increased capacity, greater throughput, and higher levels of resiliency		Perfect for the most demanding of Flash and NVMe Storage workloads in midsize to large enterprise environments
Ports	Supports up to 256 ports	Supports up to 512 ports	96x 64G SFP+ ports, plus 16x 2x64G SFP-DD ports
Power Supply	Hot swap redundant power supplies and fan trays		Redundant Hot-Swap power supplies with integral cooling fans and status LEDs
Product Guide			

Model	ThinkSystem DB720S 	ThinkSystem DB630S 	ThinkSystem DB610S 
Target Workloads	Perfect for Flash and NVMe Storage workloads in midsize enterprise environments	Perfect for the most demanding of Flash and NVMe Storage workloads in midsize to large enterprise environments	Perfect for Flash and NVMe Storage workloads in small to midsize enterprise environments
Ports	64x 64Gb SFP+ ports	96x 32Gb SFP+ ports 8x 128Gb QSFP+ ports	24x 32Gb SFP+ ports
Power Supply	Redundant Hot Swap power supplies	Redundant Hot Swap power supplies	One fixed power supply
Product Guide			

Lenovo ThinkSystem

DIRECT ATTACH STORAGE (JBOD)

Capacity expansion for servers or Software Defined Storage

The Lenovo DAS portfolio provides traditional, as well as high density, storage for high-capacity applications, such as digital media, big data, HPC and video surveillance, at an affordable price. At near limitless scalability with disruptive levels of performance, the DAS portfolio easily satisfies your ever-growing storage needs.

Components	Lenovo D12XX Series D1212/ D122	Lenovo High-Density D3284	Lenovo High-Density D4390
Target Workload	Big Data, Business Analytics, Video Surveillance, Media Streaming, Private Clouds, File and Print Serving, E-mail and Collaboration, Databases, SAP HANA, Software-defined Storage, Windows Storage Spaces	Big Data, Business Analytics, Video Surveillance, Private and Hybrid Clouds, File and Print Serving, Backup and Archiving, Software-defined Storage, Windows Storage Spaces	HPC simulations, object storage, Tier 3 cloud data providers, video streaming, global file sharing, big data and analytics, video surveillance, private and hybrid clouds, and backup and archiving.
Form Factor	2U	5U	4U
Drive Bays	D1212: 12 LFF hot-swap drive bays; up to 8x D1212 enclosures can be daisy chained on a supported RAID adapter or HBA for a total of up to 96 LFF drives. D1224: 24 SFF hot-swap drive bays; up to 8x D1224 enclosures can be daisy chained on a supported RAID adapter or HBA for a total of up to 192 SFF drives. Intermix of SFF and LFF enclosures is supported.	84 LFF hot-swap drive bays in two drawers. Each drawer has three drive rows, and each row has 14 drives. Up to 4x D3284 enclosures can be daisy chained on a supported adapter for a total of up to 336 LFF drives.	90x hot-swap SAS HDD/SSD drives (12 SAS SSD drives supported per enclosure): • Up to 24TB 7,200rpm NL-SAS HDDs • Up to 800GB SSDs (2.5" drive in 3.5" tray)
Storage Capacity	D1212: Up to 1.92 PB (96x 20 TB LFF NL SAS HDDs) D1224: Up to 1.47 PB (192x 7.68 TB SFF SAS SSDs	Up to 6.7PB (336x 20TB DDIC SAS HDDs)	Up to 2.1PB – 7,200rpm NL SAS HDDs Up to 9.6TB – SAS SSDs
Product Guide			

Lenovo ThinkSystem

TAPE ARCHIVE SOLUTIONS

Cost-effective long-term retention or infrequent access

IBM Tape Series stores digital information on tape. Tape is the perfect choice for storing long term data, such as system back-up, disaster recovery or archive. Using less energy and space, infinitely scalable and media life of up to 30 years all speak in favour of the IBM TS Series portfolio.

Features	**IBM TS22XX Tape Drives**	**TS2900 Tape Autoloader**
Target Workload	Backup and archive	
Available Models	• LTO Ultrium 9 • LTO Ultrium 8 • LTO Ultrium 7	• LTO Ultrium 9 • LTO Ultrium 8 • LTO Ultrium 7
Number of drives	1	1
Number of cartridge slots	1	9
Cartridge Capacity	LTO 9: 18 TB native; up to 45 TB compressed (with 2.5:1 compression ratio) LTO 8: 12 TB native; up to 30 TB compressed (with 2.5:1 compression ratio) LTO 7: 6 TB native; up to 15 TB compressed (with 2.5:1 compression ratio)	
Total Backup capacity	Dependent on cartridge as above	LTO 9: Up to 162 TB / up to 405 TB* LTO 8: Up to 108 TB / up to 270 TB* LTO 7: Up to 54 TB / up to 135 TB*
Data transfer rate	LTO 9: Up to 300 MB/s native; up to 750 MB/s compressed (with 2.5:1 compression) LTO 8: Up to 360 MB/s native; up to 750 MB/s compressed (with 2.5:1 compression) LTO 7: Up to 300 MB/s native; up to 750 MB/s compressed (with 2.5:1 compression)	
Product Guide		

Lenovo ThinkSystem

Features	IBM TS4300 Tape Library		
Target Workload	Enterprise tape automation and reliability with open system affordability. It is a high-density, highly scalable, easy-to-manage solution designed to keep data securely stored long-term, while helping reduce the costs associated with data center space and utilities.		
Available Models	IBM TS4300 3U Tape Library-Base Unit IBM TS4300 3U Tape Library-Base Unit-48U IBM TS4300 3U Tape Library-Expansion Unit-48U		
Form Factor	Minimum – TS4300 base module only (3U) Intermediate - TS4300 base module with 6 expansion modules (21U) Maximum – TS4300 base module with 15 expansion modules (48U)		
Number of drives	Per module: Up to 1x full-high and 1x half-high tape drives, or up to 3x half-high tape drives. Per 7-module library: From up to 7x full-high and 7x half-high tape drives to up to 21x half-high tape drives.		
Number of cartridge slots	Per module: 40 Per 7-module library: 280 Per 16-module library: 640		
Cartridge Capacity	LTO 9 (L9): 18 TB LTO 8 (L8): 12 TB LTO 7 initialized LTO 8 Type M (M8): 9 TB LTO 7 (L7): 6 TB		
Total Backup Capacity	Per module: LTO 9 (L9): Up to 720 TB LTO 8 (L8): Up to 480 TB LTO 7 (M8): Up to 360 TB LTO 7 (L7): Up to 240 TB	Per 7-module library: LTO 9 (L9) Up to 5.00 PB LTO 8 (L8): Up to 3.36 PB LTO 7 (M8): Up to 2.52 PB LTO 7 (L7): Up to 1.68 PB	Per 16-module library: LTO 9 (L9) Up to 11.52 PB LTO 8 (L8): Up to 7.68 PB LTO 7 (M8): Up to 5.76 PB LTO 7 (L7): Up to 3.84 PB
Native Data Transfer Rate	Per drive: LTO 9 FH: Up to 400 MB/s LTO 8 FH: Up to 360 MB/s LTO 8 HH, LTO7: Up to 300 MB/s		
Product Guide			

* With 2.5:1 compression ratio

Lenovo ThinkSystem

OEM SOLUTIONS

Get on-demand OEM that lives up to your product standards. You'll have award-winning global support, innovative technology, and flexible programs that deliver at low cost.

ON DEMAND SOLUTION OFFERINGS

Lenovo has partnered with several ISVs to offer you the following solutions through our unique ON DEMAND program. We offer complete solutions for security and video surveillance, hyperconverged infrastructure (HCI), data protection and backup/recovery, and a solution to deploy and manage containerized applications across on-premises and hybrid cloud infrastructures. Review our available solutions below.

TEAM UP WITH AN INDUSTRY-LEADING GLOBAL PARTNER FOR YOUR OEM SOLUTION

When you have products based on standard IT technologies, you can often benefit from partnering with a leader in the industry to increase value and solve your go to market concerns.

Let our innovation work for you!

Bring your solutions to market rapidly and efficiently with complementary services, resources, and capabilities working with trust-worthy Lenovo representatives. We offer leveraged and effective dedicated OEM resources which can manage your product from concept to launch to lifecycle, all with financial solutions which align to your business model.

Lenovo is an established global supplier of IT compute platforms and solutions. With the most reliable x86 servers in the industry, along with the best-selling brand of laptops in history, Lenovo is truly world-class. We've shipped more than 20M servers to 160+ markets and work with over 2,000 suppliers.

Lenovo OEM Solutions works across verticals with many of the world's largest brands around the globe assisting in their go to market for their products and solutions built on a solid foundation of Lenovo technology, services, support, and global presence – our core expertise.

Lenovo ThinkSystem

OEM Solutions' unique capabilities delivers the likes of custom or unbranded offerings, such as hardware, firmware, software, packaging, and literature. Our world-class support can be customized to meet and exceed your customer experience model, ensuring satisfied users of your products. With proof-of-concept assistance, revolving develop units programs, and full product technical modifications and feature alterations, Lenovo has your back as you develop your next product launch.

You can depend on Lenovo as your trusted OEM partner.

INDUSTRY LEADING SOLUTIONS BUILT ON LENOVO HARDWARE AND SERVICES

GeoComputing Group's RiVA virtual workstation private cloud racks replace high performance workstations used by Geoscientists in the Oil & Gas industry.

The platform handles storing, processing, securing, and visualizing the massive workflows geoscientists work on daily.

It allows users to work at accelerated rates from local or remote locations on any device they like.

RiVA outperforms existing high end workstation solutions by running either Windows or Linux applications on leading-edge high-end data center hardware with greater performance, flexibility, and reliability.

Users also experience exponential improvements in datacenter-grade uptime and both physical and logical security of geoscience IP.

RiVA also scales with ease, can typically be repaired without downtime or lost data, and eases the budgeting process for petro-technical workflow technologies.

For more information on Edge solution visit

Lenovo

Lenovo ThinkSystem

SCALE COMPUTING: HC3 APPLIANCES

The HC3 Hyperconverged Infrastructure solution from Scale Computing and Lenovo enables small and medium businesses to obtain enterprise reliability and performance for their applications at a very attractive price point.

Scale HC3 provides integrated storage, servers, backup/DR and virtualization software in an all-in-one appliance-based system that is scalable, self-healing, as easy-to-manage as a single server, and can be deployed in about an hour.

Primary use cases include traditional virtualization infrastructure refreshes, VDI, Hybrid cloud, Digital Transformation Initiatives (e.g. IoT), and Distributed Enterprises/ROBO.

QUANTUM: VS-HCI APPLIANCES

Lenovo and Pivot3's Surveillance Series enables organizations to consolidate video storage, management, analytics, access control and other security applications onto a single, all-in-one IT infrastructure that delivers the performance, resiliency and scalability required by mission critical surveillance, security, analytics, and IoT environments.

This hyperconverged infrastructure (HCI) approach combines server and storage resources into modular, scalable appliances.

The Surveillance Series includes solutions for:

- Demanding video surveillance and security workloads
- Virtual Security Operations Center (VSOC) solutions that consolidate all video and security workstations and applications onto one centralized platform, virtualized for full mobile and remote access
- Analytics for extracting intelligence from video

For more information on Edge solution visit

Lenovo

Lenovo ThinkSystem

DIAMANTI: SR630 APPLIANCE

Containers are the latest evolution of application technology, allowing you to develop cloud-native applications using microservices. But containers must be managed and deployed or migrated to where it is most convenient and in accordance with regulatory compliance, whether that may be on-premises, or in public, private, or hybrid clouds.

Diamanti SR630 is a complete, certified, turn-key, full stack hardware/acceleration/software Kubernetes appliance integrating high-performance compute, plug-and-play networking, and persistent storage. This solution can reduce your data center footprint requirements, complexity, and overall TCO.

For more information on Edge solution visit

Lenovo ThinkSystem

SOFTWARE-DEFINED INFRASTRUCTURE

Software-defined infrastructure (SDI) is a technology that refers to logically pooled computation, memory, storage, and networking resources that are managed by software with little human intervention.

From the simplest hyperconverged building blocks of a software-defined data center to more complex cloud solution, Lenovo offers a variety of approaches tailored for any of your need.

The Lenovo ThinkAgile family of products are engineered to simplify the user experience, software-defined infrastructure is designed to adapt to changing IT needs while reducing complexity and cost created by silos in traditional IT. Pre-integrated, prebuilt and pre-tested offerings accelerate application deployment and add robust capabilities to your data center faster.

All ThinkAgile solutions can be easily managed through a full integration of Lenovo XClarity into the original software vendor management software for the easiest and seamless operational daily tasks.

ThinkAgile SXM Series

Lenovo ThinkAgile SXM delivers a pre-integrated, easy-to-deploy rack-level solution for hybrid cloud to dramatically reduce time-to-value and total cost of ownership (TCO). The solution is based on Lenovo's industry-leading data center infrastructure and Microsoft Azure Stack Hub, an extension of Microsoft Azure Services to on-premises environments.

Suggested workloads for the ThinkAgile SXM include virtual desktop infrastructure (VDI), back-office applications, server consolidation, enterprise applications, databases, test and development environments, and cloud implementation. Starting with as few as four nodes to keep your acquisition costs down, the solution offers "pay as you grow" scalability as your needs grow.

The ThinkAgile SXM ships fully integrated into a rack cabinet (optionally deployed in a customer provided cabinet), tested, configured, and ready to be plugged in and turned on and it is designed to integrate into an existing infrastructure effortlessly, to accelerate time to value and reduce infrastructure maintenance costs while extending Microsoft Azure technologies on-premises.

HYPERCONVERGED INFRASTRUCTURE

Lenovo's hyperconverged solutions leverage virtualisation and software-defined storage to natively collapse core storage, compute, and networking functions into a single pool of resources that are deployed as a scale-out cluster.

Lenovo Models	**ThinkAgile SXM4600**	**ThinkAgile SXM6600**
Form Factor and Nodes	42U rack cabinet, 4 to 16 nodes	42U rack cabinet, 16 nodes
Components	1x ThinkSystem SR630 V3 management node Up to 16x ThinkSystem SR650 V3 hyperconverged nodes, Hybrid or All Flash 2x Mellanox SN2410 25GbE network switches	
Software	Microsoft Windows Server 2019 with Hyper-V, Microsoft Storage Spaces Direct, Microsoft Azure Stack Hub, Lenovo XClarity Administrator Pro.	
Target workloads	Virtual desktop infrastructure (VDI), back-office applications, server consolidation, enterprise applications, databases, test and development environments, and hybrid and private cloud implementation.	
Product Guide		

Microsoft

Lenovo ThinkAgile

Lenovo Models	ThinkAgile SXM4400	ThinkAgile SXM4400	ThinkAgile SXM6400
Form Factor and Nodes	25U, 4 to 8 nodes	42U or customer provided rack, 4 to 16 nodes	42U, 16 nodes
Components	1x ThinkSystem SR630 management node Up to 16x ThinkSystem SR650 hyperconverged nodes, Hybrid or All Flash 2x Mellanox SN2410 25GbE network switches		
Software	Microsoft Windows Server 2019 with Hyper-V, Microsoft Storage Spaces Direct, Microsoft Azure Stack Hub, Lenovo XClarity Administrator Pro.		
Target workloads	Virtualized workloads DevOps - Dev/Test/QA SQL as a service Enterprise backup IOT BigData/Analytics Containers		
Product Guide			

Lenovo

Microsoft

Lenovo ThinkAgile

ThinkAgile MX Solutions

Azure Local is a HCI host operating system from Microsoft, delivered as an Azure service, providing the latest and up-to-date security, performance and feature updates. Azure Local builds on the foundation of the Microsoft Windows Server Software Defined program and provides a certification path for Storage Spaces Direct solutions.

Lenovo ThinkAgile MX Solutions (Integrated Systems and Certified Nodes) combine the Storage Spaces Direct technology included in this new host OS, with industry leading Lenovo servers to deliver HCI building blocks that build your infrastructure solutions.

Lenovo ThinkAgile MX Integrated Systems map to Microsoft Azure Local Integrated Systems and ThinkAgile MX Certified Nodes map to Microsoft Azure Local Validated Nodes.

ThinkAgile MX Solutions are built with certified hardware components, are easily orderable as appliances, and include deployment/update features built into Windows Admin Center. Benefits like these allow businesses to deploy solutions quickly and easily.

ThinkAgile MX Integrated Systems include Azure Local, and optionally include Windows Server 2022 Datacenter in case you require unlimited guest OS virtual machine licenses. ThinkAgile MX Certified nodes optionally include the Azure Local software or Windows Server 2022 Datacenter depending on their needs.

ThinkAgile MX Solutions also features the models for Edge workloads.

Lenovo Models (Intel Xeon Scalabe 3rd gen platform)	**ThinkAgile MX333x-F and MX333x-H** (x=0 for Appliance, X=1 for Certified Node, F=All Flash, H= Hybrid)	**ThinkAgile MX353x-F and MX350x-H** (x=0 for Appliance, X=1 for Certified Node, F=All Flash, H= Hybrid)	**ThinkAgile MX450 Edge Integrated System**
Target Workload	LOB apps, large file services, SQL, VDI, collaboration		IoT, Smart Surveillance, or AI
Form Factor	1U	2U	2U rack server, 300mm or 360mm depth
Processor	2x Intel Xeon Scalable Gen 3 family processors		1x 3rd Gen Intel® Xeon® Scalable processor
GPU	Nvidia T4, A2 (up to 3x)	NVIDIA A2, A10, A16, A30, A40, A100, T4, Quadro RTX6000, (up to 8x)	Up to 4x single-wide or up to 2x double-wide GPUs
Software (included with Appliances, optional with Certified Nodes)	Appliances include the preloaded Azure Local operating system only and requires activation via a CSP. Windows Server 2019 Datacenter license is optional if unlimited guest OS VMs are desired. Certified Nodes can optionally have Windows Server 2019 Datacenter preinstalled.		Microsoft Azure Local operating system is preloaded, with an option to purchase a Windows Server 2022 license
Product Guide			

Lenovo Models (Intel Xeon Scalable 5th or 4th gen platform)	ThinkAgile MX630 V3 Integrated System (*) ThinkAgile MX630 V3 Certified Node	ThinkAgile MX650 V3 Integrated System (*) ThinkAgile MX650 V3 Certified Node ThinkAgile MX650 V3 Premier Solution
Target Workload	Entry/SMB, General Compute	Database, VDI, stretched cluster, AI/ML
Form Factor	1U	2U
Processor	2x 5th Gen Intel® Xeon® Scalable processors, up to 350W	2x 5th Gen Intel® Xeon® Scalable processors, up to 350W
Drive Bays	4x 3.5”, 12x 2.5”	16x 3.5”, 28x 2.5”
Product Guide		

Lenovo Models (Intel® Xeon® 6 processor platform)	ThinkAgile MX650 V4	ThinkAgile MX630 V4
Target Workload	Cloud, AI/ML, Database, VDI	Entry/SMB, General Compute
Form Factor	2U	1U
Processor	Up to 2x Intel® Xeon® 6 processors	Up to 2x Intel® Xeon® 6 processors
Drive Bays	Up to 20x 3.5”, 40x 2.5” drive bays, 32x E3.S	Front bay choices: • 10x 2.5” AnyBay • 4x 3.5” SAS/SATA Rear bay choices: • 2x 2.5” SAS/SATA or NVME (Optional)
GPU	Up to 10x single-width GPUs or 2x double-wide GPUs	Up to 3x single-wide GPUs
Product Guide		

Lenovo Models (AMD 4th gen platform)	ThinkAgile MX455 V3 Edge Premier Solution
Target Workload	Real Time Processing, Smart Surveillance, or Machine Learning/ AI
Form Factor	2U rack server, short depth (438mm depth, from EIA front rack flange)
Processor	1x 4th Gen AMD EPYC™ processor
GPUs	Up to 6x single-wide GPUs
Software	Microsoft Azure Local operating system is preloaded, with an option to purchase a Windows Server 2022 license (Standard or Datacenter edition) to provide guest OS licenses for virtual machines running in the solution.
Product Guide	

(*) : Integrated System is a new naming replacing Appliance

ThinkAgile HX Solutions

Lenovo ThinkAgile HX Solutions, a best-in-class hyperconverged system with Nutanix's industry leading software preloaded on both Intel-based and AMD-based Lenovo platforms, dramatically simplifies data center management, freeing up IT staff and accelerating solution deployment.

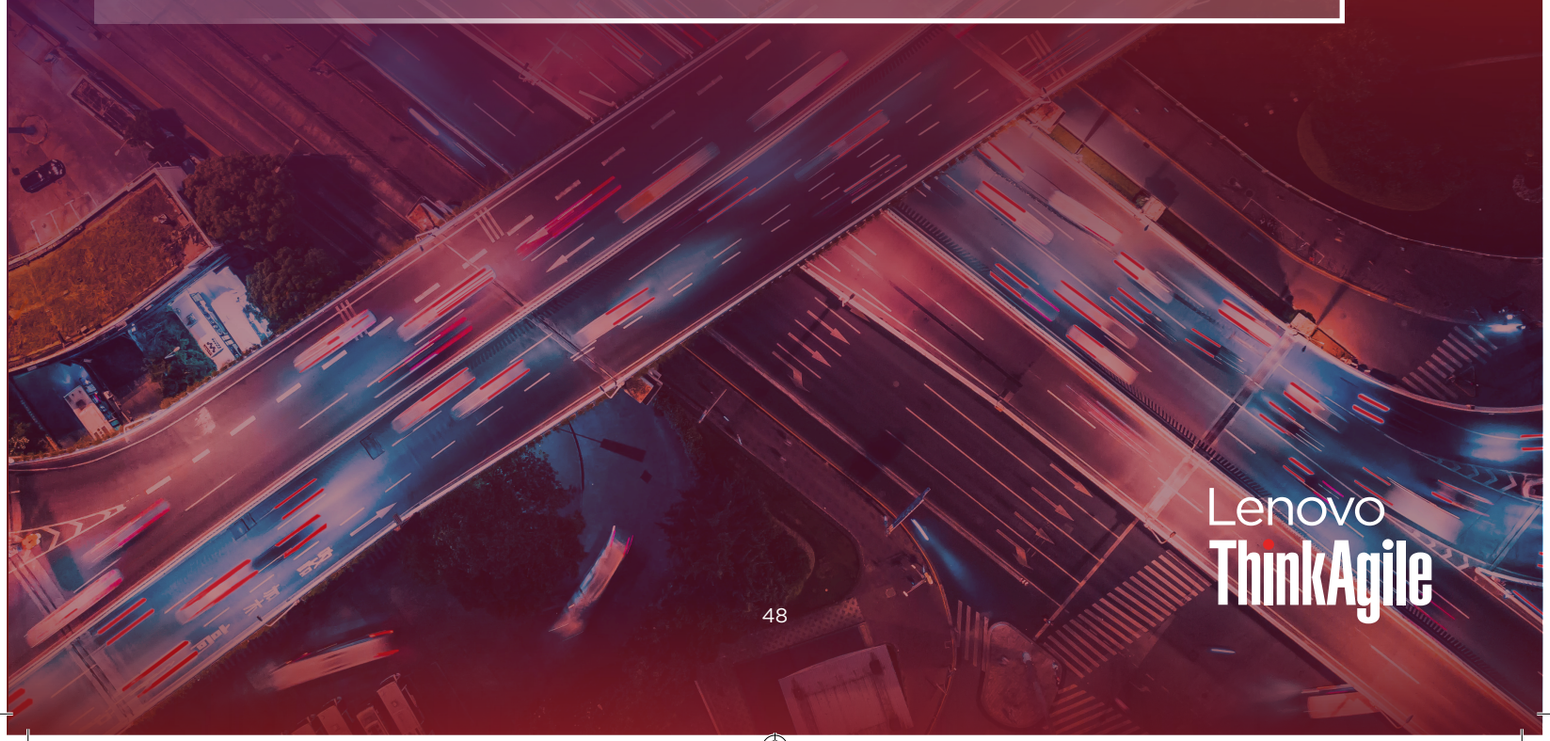
This hyperconverged solution fully integrates Lenovo servers with core Nutanix software to provide:

- Application mobility.
- Distributed storage fabric and a hypervisor (all part of Nutanix Acropolis).
- System management software (Nutanix Prism to manage the cluster and virtual machines and Lenovo XClarity to manage the hardware resources).

ThinkAgile HX solutions has been designed, engineered, tailored and validated for a wide range of business solutions, so that you have the freedom to run any workload, at any scale, all the time, consolidating compute, storage and virtualization software into a resource pool, easily managed in scale-out clusters through a single interface.

The HX solutions ships from Lenovo as fully integrated system (Integrated Systems) and as validated building blocks (Certified Nodes), now also configurable with the latest Intel and AMD technology, and delivers extreme reliability, security, scalability and simplified management. As a result, you can deploy applications faster, without the hassle, while dramatically reducing total cost of ownership.

Lenovo also offers businesses with SAP deployments an opportunity to reap the efficiencies and cost savings of hyperconverged clusters. By migrating HANA workloads from complex, three-tiered legacy architectures to hyperconverged clusters, customers can enjoy all the benefits of hyperconverged infrastructure. Customers with hyperconverged architectures who require real-time analytics to guide their business decisions also have the option to leverage their existing IT to deploy SAP HANA.



Lenovo ThinkAgile

ThinkAgile HX Series for Edge (Intel)	HX360 V2			
Target Workload	Edge			
Form Factor	2U			
Processor	1x Intel® Xeon® D-2700 Series processor			
GPU adapters	1x NVIDIA A2 or L4			
Drive Bays	Up to 8x NVMe M.2 data storage drives 1x M.2 NVMe boot drive			
Lenovo Models (Intel Xeon Scalable 5th or 4th gen platform)	ThinkAgile HX630 V3 Integrated System ThinkAgile HX630 V3 Certified Node	ThinkAgile HX630 V3 ROBO Integrated System ThinkAgile HX630 V3 ROBO Certified Node	ThinkAgile HX650 V3 Storage Integrated System ThinkAgile HX650 V3 Storage Certified Node	ThinkAgile HX650 V3 Integrated System ThinkAgile HX650 V3 Certified Node
Target Workload	VDI, server virtualization, private cloud, general compute	Remote Office/Branch Office (ROBO)	Storage heavy	High performance/ Mission Critical
Form Factor	1U	1U	2U	2U
Processor	1x or 2x 5th Gen Intel® Xeon® Scalable processors, up to 350W	1x or 2x 5th Gen Intel® Xeon® Scalable processors, up to 350W	1x or 2x 5th Gen Intel® Xeon® Scalable processors, up to 350W	1x or 2x 5th Gen Intel® Xeon® Scalable processors, up to 350W
Drive Bays	Front: 10x 2.5” AnyBay Rear: 2x 2.5” (Optional)	Front: 4x 3.5” SATA/SAS Rear: 2x 2.5” (Optional)	Front: 12x 3.5” SAS/ SATA Rear: 4x 2.5” SAS/SATA (Optional)	Front: 16x 2.5” SAS/ SATA + optional 8x 2.5” AnyBay Rear: None
Product Guide				

Lenovo Models (Intel® Xeon® 6 processor platform)	ThinkAgile HX630 V4	ThinkAgile HX650 V4 ThinkAgile HX650 V4 Storage
Target Workload	Small and Medium Businesses	Mission-critical Workloads Big Data and High Capacity
Form Factor	1U	2U
Processor	2x Intel® Xeon® 6 processor with P-cores, p to 330W	2x Intel® Xeon® 6 processor with P-cores, up to 330W
Drive Bays	10x 2.5”	• Up to 24x 2.5” • 12x 3.5” with optional rear 4x 3.5”
GPU	Up to 3x single-wide GPUs	Up to 2x double-wide GPUs Up to 8x single-wide GPUs
Product Guide		

Lenovo Models (AMD 5th or 4th gen platform)	ThinkAgile HX645 V3 Integrated System ThinkAgile HX645 V3 Certified Node	ThinkAgile HX665 V3 Integrated System ThinkAgile HX665 V3 Certified Node	ThinkAgile HX665 V3 Storage Integrated System ThinkAgile HX665 V3 Storage Certified Node
Target Workload	Entry/SMB, General Compute	VDI, Database & Enterprise Application, Development & Test, AI/ML,	File & Object Storage, Data Protection, Development & Test
Form Factor	1U	2U	2U
Processor	2x AMD EPYC™ 9005 or 9004 Series processors, up to 96 cores, 360W	2x AMD EPYC™ 9005 or 9004 Series processors, up to 96 cores, 360W	2x AMD EPYC™ 9005 or 9004 Series processors, up to 96 cores, 360W
Drive Bays	Front: 6x2.5” SATA/SAS + 4x 2.5” AnyBay Rear: 2x 2.5” SATA/SAS (optional) Up to 4x NVMe drives (requires 2 CPUs)	Front: 24 x2.5” SATA/SAS, 8x 2.5” NVMe Rear: 4x 2.5” SAS/SATA	Front: 12x 3.5” SAS/SATA Rear: 4x 2.5” SAS/SATA (optional)
Product Guide			

Lenovo

Lenovo ThinkAgile

ThinkAgile VX Series

Lenovo ThinkAgile VX Series enables you to meet requirements as being competitive in a fast-moving business environment, cost effectiveness and solution simplicity and scalability by focusing on the business outcome you require, rather than on building your infrastructure.

ThinkAgile VX Series, powered by VMware vSAN, designed on both Intel-based and AMD-based Lenovo platforms, is available in several models, Appliances and Certified Nodes, both pre-tested, pre-validated and optimized to provide the simplest way to bring a new VMware hyperconverged environment online, also granting an easy integration into an existing VMware environment.

As any Lenovo ThinkAgile solution, VX Series is delivered with the hardware configured, software installed, and the option of having Lenovo professional services to integrate it into your environment, making this solution easy to deploy, providing faster time-to-value, and reducing costs and it's now also configurable with the latest Intel and AMD technology.

VX Series includes powerful lifecycle management capabilities via vSphere Lifecycle Manager (vLCM) to speed deployment up, simplifying patching and updating software, with task automation.

ThinkAgile VX Series comes in a wide range of platforms and provides the flexibility to configure the system you need to meet any use-case, and supporting both All-Flash and Hybrid configurations.

ThinkAgile VX3000 Series (AMD)	ThinkAgile VX3575-G Integrated Appliance (*) ThinkAgile VX7576 Certified Node (**)
Target Workloads	VDI Graphic Intensive
Form Factors	2U
GPU Adapters	NVIDIA A100, A40, A16, A2, P620, T4 (up to 8x)
Processor	2x AMD EPYC 7003 Series Processors
Drive Bays	Up to 24x 2.5"
Software (included with Appliances, optional with Certified Nodes)	Software licenses that must be purchased from Lenovo: • VMware vSAN: Standard, Advanced, Enterprise, or ROBO; or • HCI Kit: Essentials, Standard, Advanced, Enterprise, or ROBO; or • VMware Horizon: Advanced or Enterprise; or • VMware Cloud Foundation (VCF): Basic, Standard, Advanced, Enterprise, or for VDI. Software licenses that can be purchased from Lenovo or provided by the customer: • VMware vSphere: Standard, Enterprise Plus, or ROBO. • VMware Horizon: Standard (optional). • VMware vCenter Server: Foundation or Standard.
Product Guide	VX3575-G: (this product guide is valid for whole VX AMD series, and for both Integrated Systems and Certified Nodes)

(*) : Integrated System is a new naming replacing Appliance
(**) : VX7576 is a common 2U Certified Node base platform that can be configured as VX3576-G, VX5576 or VX7576 Certified Node model

ThinkAgile VX5000 Series (AMD)	ThinkAgile VX5575 Integrated System (*) ThinkAgile VX7576 Certified Node (**)
Target Workloads	Storage Heavy workloads Big Data/Analytics Email Large Databases and other high-capacity storage needs
Form Factors	2U
Processor	1x or2x AMD EPYC 7003 Series Processors
Drive Bays	Up to 16x 3.5”
Software (included with Appliances, optional with Certified Nodes)	Software licenses that must be purchased from Lenovo: • VMware vSAN: Standard, Advanced, Enterprise, or ROBO; or • HCI Kit: Essentials, Standard, Advanced, Enterprise, or ROBO; or • VMware Horizon: Advanced or Enterprise; or • VMware Cloud Foundation (VCF): Basic, Standard, Advanced, Enterprise, or for VDI. Software licenses that can be purchased from Lenovo or provided by the customer: • VMware vSphere: Standard, Enterprise Plus, or ROBO. • VMware Horizon: Standard (optional). • VMware vCenter Server: Foundation or Standard.
Product Guide	VX5575: (this product guide is valid for whole VX AMD series, and for both Integrated Systems and Certified Nodes)
ThinkAgile VX7000 2P Series (AMD)	ThinkAgile VX757x (x=5 for Integrated System (*), X=6 for Certified Node)
Target Workloads	High-performance workloads Databases
Form Factor	2U
Processor	Up to 2x AMD EPYC 7003 Series Processors
Drive Bays	Up to 35x 2.5” or up to 16x 3.5” or up to 32x NVMe
Software (included with Appliances, optional with Certified Nodes)	Software licenses that must be purchased from Lenovo: • VMware vSAN: Standard, Advanced, Enterprise, or ROBO; or • HCI Kit: Essentials, Standard, Advanced, Enterprise, or ROBO; or • VMware Horizon: Advanced or Enterprise; or • VMware Cloud Foundation (VCF): Basic, Standard, Advanced, Enterprise, or for VDI. Software licenses that can be purchased from Lenovo or provided by the customer: • VMware vSphere: Standard, Enterprise Plus, or ROBO. • VMware Horizon: Standard (optional). • VMware vCenter Server: Foundation or Standard.
Product Guide	VX757x: (this product guide is valid for whole VX AMD series, and for both Integrated Systems and Certified Nodes)

(*) : Integrated System is a new naming replacing Appliance
(**) : VX7576 is a common 2U Certified Node base platform that can be configured as VX3576-G, VX5576 or VX7576 Certified Node model

Lenovo Models (AMD 5th or 4th gen platform)	ThinkAgile VX645 V3 Integrated System ThinkAgile VX645 V3 Certified Node	ThinkAgile VX665 V3 Integrated System ThinkAgile VX665 V3 Certified Node	ThinkAgile VX635 V3 Integrated System ThinkAgile VX635 V3 Certified Node	ThinkAgile VX655 V3 Integrated System ThinkAgile VX655 V3 Certified Node
Target Workloads	SMB, Remote Office/ Branch Office (ROBO), VDI, Data Analytics & Backup	High performance computing (HPC), Big Data & Analytics and I/O intensive operations	SMB, Remote Office/ Branch Office (ROBO), VDI, Data Analytics & Backup	High performance computing (HPC), Big Data & Analytics and I/O intensive operations
Form Factor	1U	2U	1U	2U
Processor	1x or 2x AMD EPYC™ 9005 or 9004 Processors	1x or 2x AMD EPYC™ 9005 or 9004 Processors	1x AMD EPYC™ 9005 or 9004 Processors	1x AMD EPYC™ 9005 or 9004 Processors
Drive Bays	12x 2.5" (HS) NVMe/SAS/SATA	32*x 2.5" (HS) NVMe/SAS/SATA 20x 3.5" (HS) SAS/SATA	12x 2.5" (HS) NVMe/SAS/SATA	32*x 2.5" (HS) NVMe/SAS/SATA 20x 3.5" (HS) SAS/SATA
Product Guide				

Lenovo Models (Intel Xeon Scalable 5th or 4th gen platform)	ThinkAgile VX630 V3 Integrated System ThinkAgile VX630 V3 Certified Node	ThinkAgile VX650 V3 Integrated System ThinkAgile VX650 V3 Certified Node ThinkAgile VX650 V3 SAP HANA	ThinkAgile VX850 V3 Certified Node ThinkAgile VX850 V3 SAP HANA
Target Workloads	SMB, Remote Office/Branch Office, VDI	Compute Heavy Compute Heavy with SAP HANA	Database & Analytics, ERP & CRM Applications Compute Heavy with SAP HANA
Form Factor	1U	2U	2U
Processor	1x or 2x 5th Gen Intel® Xeon® Scalable processors	1x or 2x 4th or 5th Gen Intel® Xeon® Scalable processors	2x or 4x 4th Gen Intel® Xeon® Scalable processors
Drive Bays	12x 2.5" (HS) NVMe/SAS/SATA 4x 3.5" (HS) SAS/SATA	32*x 2.5" (HS) NVMe/SAS/SATA 20x 3.5" (HS) SAS/SATA	24x 2.5" (HS) NVMe
Product Guide			

*Maximum up to 40x 2.5" (HS) SAS/SATA supported with expander via CORE request

Lenovo ThinkAgile

Lenovo Models (Intel® Xeon® 6 processor platform)	ThinkAgile VX630 V4	ThinkAgile VX650 V4
Target Workloads	SMB, Remote Office/Branch Office (ROBO), VDI	General purpose and Compute Heavy
Form Factor	1U	2U
Processor	Up to 2x Intel® Xeon® 6 processors	Up to 2x Intel® Xeon® 6 processors
Drive Bays	• Front: Up to 10x 2.5" NVMe, or 16x E3.S NVMe • Rear: Up to 2x 2.5" NVMe	• Front: Up to 24x 2.5" NVMe, or 32x E3.S NVMe • Mid: Up to 8x2.5" NVMe • Rear: Up to 8x 2.5"
GPU	Up to 3x single-width 75W GPUs	Up to 10x single-width GPUs or 2x double-width GPUs
Product Guide		

Single Point of Support

Lenovo ThinkAgile gives you a direct phone line to a team of experts who specialize in ThinkAgile solutions. ThinkAgile Integrated Systems are bundled with Premier Support providing a single-point-of-contact for hardware and software support. Premier Support offers a choice of Foundation, Essential or Advanced service levels to extend support for your system and select a faster response time (subject to availability). This gives you access to our highest level of service through direct access to skilled Lenovo experts 24x7x365, providing single-point-of-contact for simplified end-to-end case management, online support tools & collaborative 3rd party software support, comprehensive hardware, and Original Equipment Manufacturer (OEM) software support and priority on service delivery and repair parts.

ThinkAgile solutions are deployed by Lenovo Professionals, eliminating the need for customer's internal resources. We have tailored deployment options for our ThinkAgile solutions that accelerate your time to value and reduce your risk of managing large implementation projects. You can also purchase onsite Hardware Installation Services to streamline the project. After deploying a ThinkAgile solution, you'll get supported by a dedicated phone number answered by highly skilled Lenovo technicians who are focused on understanding and resolving any issue, or you can submit a request online: because you reach a technically qualified expert on the first call, we can diagnose issues faster, helping to resolve problems more accurately, in less time.

ThinkAgile with Premier Support includes:

- A single point of support for managing all calls to conclusion
- End-to-end case management for the entire solution
- A dedicated Lenovo phone number to answer your calls 24x7, live answered by technical experts
- Simplified warranty entitlement
- Hardware and Software Deployment
- Response times to meet business needs (Foundation, Essential, Advanced)

Lenovo also provides comprehensive services such as deployment services, assessment workshops, hybrid cloud assessment, enterprise server software support, managed services, and health checks. Check on Lenovo.com to know more on Lenovo Services for Data Center.

SOFTWARE FOR YOUR INFRASTRUCTURE

Accelerate your success with Lenovo Software & Strategic Alliances

Pair your Lenovo servers, storage, and networking systems with software that creates the right solution for your workloads and your business. Providing the foundation upon which critical enterprise business applications are run. We partner with leading software providers to offer their infrastructure software with our extremely reliable, high-performance ThinkSystem and ThinkAgile servers. Infrastructure software helps businesses become more agile, secure, and service-oriented. Lenovo complements that software with reliable and high-performance hardware systems and services expertise to help you successfully integrate innovative IT infrastructure with your operations and improve your overall business.

Pillars for a modern data center:

- Operating system
- Virtualization
- Data Protection
- Management and Orchestration

Microsoft

LENOVO XCLARITY

Lenovo XClarity is a family of tools that help administrators to deploy, manage, optimise and secure their servers, storage, networking and solutions. It also goes further by allowing hardware management to seamlessly integrate into the wider IT environment.

Lenovo's modern open approach, reduces complexity, enhances availability and ensures secure control, for even the largest of environments.

XClarity Adminstrator

- Be up and running faster, with no installation needed. XClarity Administrator is a ready to go virtual appliance, supported on a range of hypervisors.
- Take control of your inventory with agentless, auto-discovery of endpoints so that managed hardware can be viewed-at-a-glance.
- Monitoring alerts and events are visible via the XClarity Administrator Dashboard, the status bar, and the alerts and events detail for the specific systems.
- Configuration management uses pattern-based configurations to quickly provision and re-provision a single or mutiple end-points, with a single set of configuration settings.
- With Compliance Reports you can be sure your systems stay in the state you set them. Any changes to firmware of settings are tracked and reported on.
- Deployment of operating systems and hypervisors to bare metal servers. VMware ESXi, Windows Server, SUSE Linux Enterprise Server (SLES), Red Hat Linux, Alma Linux, Rocky Linux, and Ubuntu images can be imported and held in a repository for images. Up to 28 OS images can be deployed concurrently.

Lenovo XClarity can be integrated into external, higher level management, automation, and orchestration platforms through open REST application programming interfaces (APIs) with Lenovo XClarity Integrators.

Find out more here:

Download the free Lenovo XClarity Adminstrator

Lenovo XClarity

XClarity Orchestrator and XClarity Orchestrator Analytics

Scale up to 10,000 end points and manage multiply Administrator instances across multiple sites. Use powerful AI driven analytic tools to keep your environment in top condition.

Find out more here:

COMPUTING ORCHESTRATION AND CLOUD AUTOMATION

Lenovo Intelligent Computing Orchestration (LiCO)

The convergence of HPC and AI is allowing dramatic advancements, but it is also posing non-trivial challenges.

Increasing model sophistication leads to great breakthroughs allowing solving complex tasks, but how to make proper sizing for the resource needed to train those models? How to run multiple large experiments efficiently? How to parallelize multiple training or coordinate multiple teams? And finally, how to optimize the utilization of resources without compromising the freedom of the users to experiment.

Introducing LiCO : Lenovo Intelligent Computing Orchestration (LiCO) is a software developed in-house at Lenovo that provides a simple, easy-to-use Graphical User Interface (GUI) to make accessing customer compute resources very easy for A.I. development and training. LiCO interfaces with an open-source software orchestration stack, enabling the convergence of AI onto an HPC or Kubernetes-based cluster. LiCO solves some of the challenges of AI adoption in terms of simplification of AI development workflow, cluster resources management, monitoring and utilization and thus driving more productivity both for AI users and system administrators.

Find out more

Lenovo Open Cloud Automation (LOC-A)

The cloud deployment process often involves manual processes that benefit from some level of automation tools. However, this process is sequential, time-consuming and error-prone. LOC-A provides an automation platform that orchestrates the entire chain of events/tools from hardware configuration to Operating Systems installation to Cloud and networking layer deployment.

LOC-A enables customers to accelerate time to value, simplify operations and be cost effective.

LOC-A has support for Kubernetes, Red Hat® OpenShift® and VMware Cloud Foundation™. It is comprised of a set of workload, services and runtime components that generate a toolkit to deliver end-to-end cloud solutions. LOC-A supports 3rd-party networking infrastructures, such as Cisco ACI.

Find out more

WINDOWS SERVER 2022

Modernize with Windows Server 2022, the cloud-ready operating system that enables hybrid capabilities for optimal value from technology investments. Prepare for the future with options like Windows Server software-defined (WSSD) datacenter solutions for greater efficiency, Secured-core solutions for help with multilayer security, Windows Admin Center for easier management, virtualization for remote desktop and apps, and containerization for flexible, modern apps.

Offerings

Windows Server 2022

- Essentials Edition - for small businesses with up to 25 users or 50 devices
- Standard Edition - for customers with low density or minimally virtualized environments
- Datacenter Edition (also available with reassignment rights) - for highly virtualized and software defined data center environments

Lenovo also offers downgrade kits from Windows Server 2022 to Windows Server 2019 and 2016.

Microsoft no longer refreshes Windows Storage Server, but Lenovo will continue to offer Windows Storage Server 2016 until the end of 2023.

Find out more

Lenovo

Microsoft

RED HAT® ENTERPRISE LINUX®

Open source operating system that is the foundation from which you can scale existing apps — and roll out emerging technologies — across bare-metal, virtual, container, and all types of cloud environments. Combining Red Hat Enterprise Linux with Lenovo servers gives you exceptional reliability and military-grade security, freeing you to deliver meaningful business results through technology.

Offerings

- RHEL Server provides a stable, secure, and performance-driven foundation for applications
- RHEL for Virtual Data Center allows for the deployment of unlimited guests in dense virtualized environments on supported hypervisors
- RHEL with Smart Virtualization helps organizations virtualize critical applications while delivering performance, scalability, and security.
- RHEL for HPC enables the creation, management, and usage of a high-performance computing (HPC) cluster.

Find out more

SUSE® LINUX ENTERPRISE SERVER

A scalable, secure, and modular operating system, SUSE Linux Enterprise Server helps simplify multi-platform (traditional, software defined and cloud) environments, makes traditional IT infrastructure more efficient and provides an engaging platform for developers. As a result, you can easily deploy and transition business-critical workloads across on-premise and public cloud environments.

Offerings

- SLES x86 provides a stable, secure, and performance-driven foundation for applications on x86 servers
- SLES for HPC - provides a parallel computing platform for high performance data analytics workloads such as artificial intelligence and machine learning
- SLES for SAP - is optimized for SAP HANA, SAP NetWeaver and SAP S/4HANA environments

Find out more

VIRTUALIZATION

Improve system utilization, reduce capital and operating costs, and minimize or eliminate downtime when running virtualization software on Lenovo servers. environments, makes traditional IT infrastructure more efficient and provides an engaging platform for developers. As a result, you can easily deploy and transition business-critical workloads across on-premise and public cloud environments.

VMware vSphere

Server virtualization software that allows you to consolidate your data center hardware and enable business continuity through server virtualization, reduce CapEx by increasing the use of existing hardware and simplify management of infrastructure at scale, ensure business continuity by reducing or eliminating downtime, and extend your on-premises environment to a vSphere–based public cloud for a seamless hybrid cloud experience.

Offerings

- Standard - Server consolidation and business recovery
- Enterprise Plus - Resource management, enhanced application availability and performance
- Essentials Kit - Server virtualization and consolidation
- Essentials Plus Kit - Server virtualization and consolidation plus business continuity
- Remote Office Branch Office (ROBO) Standard - Remote server virtualization with business continuity and backup features
- ROBO Advanced - Remote server virtualization with business continuity and backup and standardization of host configurations
- Acceleration Kit - Server consolidation and no planned downtime
- Desktop - client virtualization

Find out more

DATA PROTECTION

Veeam® Availability Suite™

Provides the ability to manage virtual, physical, and cloud-based workloads from a single console. Includes a host of advanced features which provide portability, scalability and enterprise grade security & control of your most important asset - data.

Offerings

Enterprise Plus - everything in Enterprise plus full backup I/O control, full backup from storage snapshots, full built-in WAN acceleration, and plug-in for SAP HANA

Find out more

SOLUTIONS

Accelerate cloud service delivery, extract insights from your data, and improve business outcomes with Lenovo Engineered Solutions. Developed to simplify configuration and deployment, Lenovo Engineered Solutions are designed, tested and certified to provide faster time-to-value and lower TCO. To meet your desired business outcomes, Lenovo partners with market leaders and technology leaders worked to develop high-performance, scalable offerings based on foundational ThinkSystem platforms and tested for enterprise applications matching your needs.

- **Cloud Solutions**
- **Database Solutions**
- **Big Data and Analytics**
- **High Performance Computing**
- **Business Applications**
- **Client Virtualisation**

To find out more about which engineered solution would suit you please visit:

LENOVO DSS-G

Lenovo Distributed Storage Solution for IBM Spectrum Scale (DSS-G) is a software-defined storage (SDS) solution for dense scalable file and object storage suitable for high-performance and data-intensive environments.

DSS-G combines the performance of the Lenovo ThinkSystem SR650 V2 servers, Lenovo D1224 and D3284 storage enclosures, and industry leading IBM Spectrum Scale software to offer a high performance, scalable building block approach to modern storage needs.

Lenovo DSS-G is delivered as a pre-integrated, easy-to-deploy rack level engineered solution that dramatically reduces time-to-value and total cost of ownership (TCO). All DSS-G base offerings described in this product guide are built on Lenovo ThinkSystem SR650 V2 servers, Lenovo Storage D1224 Drive Enclosures with high-performance 2.5-inch SAS solid-state drives, and Lenovo Storage D3284 High-Density Drive Enclosures with large capacity 3.5-inch NL SAS HDDs.

Combined with IBM Spectrum Scale (formerly IBM General Parallel File System, GPFS), an industry leader in high-performance clustered file system, you have an ideal solution for the ultimate file and object storage solution for HPC and Big Data.

Project	**DSS-G for IBM Spectrum Scale**
Solution Definition	• 2 ThinkSystem SR650 V2 Servers • Software: RedHat Enterprise Linux, IBM Spectrum Scale; Data Access Edition (DAE), Data Management Edition (DME) and Scale Erasure Code Edition (ECE) • 2, 4, 6, 8, 10 Enclosures • Lenovo D3284 12Gb JBOD (5U84) or up to 20 TB NL SAS drives (3.5" form factor) • Lenovo D1224 12Gb JBOD (2U24 or (2.5" form factor) with 24x SSDs (400GB – 7.68TB) • Connectivity 10GbE/25GbE/40GbE/100GbE/FDR IB/EDR IB/ HDR100 & HDR - Latest Generation InfiniBand/OPA
Target Market	HPC, Big Data, Cloud, Media & Entertainment, Digital Surveillance
Target Workloads	HPC and Distributed File Systems
Value Proposition	High storage density and I/O performance with superior availability, reliability, and resiliency

For more info scan this QR code:

LENOVO SHOWCASE

LENOVO EXECUTIVE BRIEFING CENTERS – WHERE INNOVATION NEVER STOPS!

At Lenovo, we believe collaboration is the path to innovation. Come take a peek at the innovative solutions for the datacenter & beyond that enable you to make the most of your data, utilize hybrid cloud environments and maximize the skills within your organization to respond faster to new business demands.

Our Executive Briefing Center in Stuttgart (Germany) provides an interactive environment for discussions based on customized agendas that cater to the specific requirements of the customers and business partners visiting the center.

Equipped to showcase the latest technology, the briefing center offers a range of experiences from one-on-one tailored visits to multi-client seminars, all of which offer the opportunity to:

Share
Discuss specific business challenges, analyze evolving industry trends, and share Lenovo's technology strategy and our broad offering roadmap.

Experience
Explore first-hand Lenovo's cutting-edge solutions from device to datacenter and edge, whilst meeting experts from product teams – ready to support you.

Prove
Connect with Lenovo and our Technology Partners' experts in-center and remotely and get remote access to Lenovo's infrastructure to test industry leading solutions for your business.

Interact
Host educational events for your business, or book in-depth hardware and software demonstrations for your customers.

We look forward to welcoming you at our Lenovo Executive Briefing Centers around the world. To explore options that best suit your unique requirements and schedule a client briefing, please contact your Lenovo Sales Team.

LENOVO SERVICES

Maximize your ROI with award-winning services that ensure you have the best solution for every stage of your IT lifecycle

Lenovo offers a comprehensive portfolio of services that support the full lifecycle of a customer's Lenovo IT assets with support at every stage; plan, fulfil, deploy, support, optimise, and end of life. With Lenovo Professional Services expertise we can help clients gain the most from their technology investment.

Solution Services

From the simple to the complex, our experts work with you to find the right solution for your one-of-a-kind strategic and business needs.

- Assessment Services.
- Design Services.

Implementation Services

Accelerate your time to productivity so you can focus on taking care of your customers and growing your business.

- Hardware Installation.
- Deployment Service.
- Factory Integrated Service.

Support Services

Around the world and around the clock, our experts are standing by 24x7 to safeguard your IT investment.

- Premier Support.
- Preconfigured Support.
- Managed Services.
- Technical Account Manager.
- Enterprise Server Software Support.

For more information on Lenovo Services please visit

Lenovo ThinkSystem Lenovo ThinkAgile

INFRASTRUCTURE SERVICES LIFECYCLE

From the Edge to the Data Center

Lenovo Infrastructure Services offers a complete range of service offerings for all your IT needs, from your data center to your edge infrastructure, and encompassing the full lifecycle of your IT equipment, from discovery and design, through to equipment retirement.

TECHNOLOGY AREAS

- Hybrid Cloud
- Data & Analytics
- HPC & Data Center Cooling
- Virtualization & VDI

2. DESIGN
- Solution Architecture
- Capacity Planning
- Best Recipe Development

1. DISCOVER
- Workshop
- Assessment

3. IMPLEMENT
- Hardware Installation
- Migration
- Deployment

6. RETIRE
- Hardware Deinstallation
- Asset Recovery
  - Recycling/Disposal
  - Data Sanitization
  - Drive Destruction

4. SUPPORT
- Warranty Upgrade/Extension
- Premier Support
- Technical Account Manager
- Enterprise Server Software
- Your Drive Your Data

5. OPTIMIZE
- Managed Services
- Firmware/Best Recipe Update
- Preventative Maintenance
- Health Check

With our underlying Lenovo Truscale Infrastructure Services, you have the option to implement solutions with an as-a-Service, pay-as-you-go model and take advantage of cloud like functionality with all the control and security of an on-premise solution.

For services availability in respective markets contact your Lenovo Sales Representative. For more information, visit:

Lenovo
TruScale

Introducing a truly global Everything-as-a-Service model

From the Data Center to the Pocket, Lenovo offers a complete portfolio of IT solutions under the new TruScale "as a Service" umbrella.

One solution, one provider, one contract and one single point of accountability.

Infrastructure As A Service

Think Agile Hyper Converged Infrastructure
ThinkSystem Certified Nodes
ThinkSystem Storage

- Enterprise applications
- File sharing
- VDI Solutions
- General purpose VMs
- Local or Wide-Area Network

Device As A Service

World-class Devices
Lifecycle Support
Modern IT Outcomes

- Refresh Planning
- Configuration
- Advanced Deployment
- Security & Endpoint Management
- Application updates
- Device recovery/retirement

IoT | Cloud | PC | Phone | Network | Data Center

Lenovo
TruScale

Lenovo TruScale simplifies management and powers up IT from end to end

One provider
Plan, procure and run your entire infrastructure simply, with a single point of global accountability and predictable costs.

IT on demand
Technology for the modern workplace, scaling and continuously optimizing to deliver the performance you need.

Constant ROI
No upfront capital costs for anything and a completely flexible, cloud like consumption model, deployed behind the firewall.

Absolute control
Real-time insights that help drive efficiency,
with less time in the weeds and more time for the big picture.

Secure by nature
Lenovo's foundational security approach protects everything, everywhere, all the time.

Let your IT scale with your business

With the new TruScale offer, the entire Lenovo portfolio is available as-a-service, from a single source. Lenovo TruScale simplifies the procurement, deployment and management of modern IT infrastructures. It gives you the flexibility, security and control you need to deliver the performance and capabilities that drive growth and competitive advantage.

Talk to your Lenovo Representative today,
or visit:

Lenovo

Lenovo ThinkSystem

Lenovo ThinkAgile

To learn more about Lenovo server, storage and enterprise services portfolio, contact your Lenovo representative or Business Partner, or visit lenovo.com/data center and lenovopress.com

Visit www.lenovo.com/lenovo/us/en/safecomp.html periodically for the latest information on safe and effective computing.

To learn more about Lenovo server, storage and enterprise services portfolio, contact your Lenovo representative or Business Partner, or visit lenovo.com/data center and lenovopress.com

Please Recycle