

LENOVO SOLUTIONS FOR THE EDGE TO THE DATA CENTER

Portfolio Guide

May 2022



ThinkSystem **ThinkAgile**

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ENABLING THE FUTURE

Lenovo

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 8 years running, according to 2021 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 Scalable family, 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 2021 Global Hardware, Server OS Reliability Report ² Lenovo's Data Center Group is dual headquartered and managed from Morrisville, NC, USA. We are experienced with over 25 years in the data center business. We build our datacenter products in Lenovo owned and controlled factories in each of the regions we operate. This gives us greater control over quality and supply chain security than our competitors have.

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® Scalable processor family are the ideal platform 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 [here](#), remember to scroll down to find the products you are looking for.

Looking for feature comparison, then please visit [here](#).

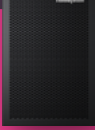

All our rack servers can be found [here](#).

ThinkSystem SR590



ThinkSystem ThinkAgile

TOWER SERVERS

Lenovo Model	ThinkSystem ST50 	ThinkSystem ST250 
Rack Units	4U	4U
Typical Workloads	Office applications for Small-to-medium-sized business, and branch office or retail applications.	System management, web, and near-side data backup, blockchain, branch office, retail applications.
Processor	1 x Intel Xeon E-2200, 6 cores max.	1 x Intel Xeon E-2200, 6 cores max.
Memory Maximum	64GB	128GB
Storage maximum	32TB	144TB
Product Guide	https://lenovopress.com/lp0960	https://lenovopress.com/lp0961

Lenovo Model	ThinkSystem ST550 	ThinkSystem ST650 V2 
Rack Units	4U	4U Tower
Typical Workloads	Office applications, private cloud, VDI, web, and branch office or retail applications.	Cloud computing, virtual desktop infrastructure (VDI), infrastructure security, systems management, enterprise applications, collaboration, databases, streaming media, web, and High Performance Computing (HPC).
Processor	2 x Intel 2nd Generation Xeon Scalable Processor, 16 cores max.	2 x Intel 3rd Generation Xeon Scalable Processor, 36 cores max.
Memory Maximum	768GB	4TB
Storage maximum	154TB	492TB
Product Guide	https://lenovopress.com/lp1055	https://lenovopress.com/lp1390




ThinkSystem

TOWER SERVERS


Lenovo Model	ThinkSystem ST50 V2 	ThinkSystem ST250 V2 
Rack Units	4U	4U
Typical Workloads	Business applications, collaboration, and web applications.	Business applications, collaboration, system management, and web.
Processor	1 x Intel Xeon E-2300, 8 cores max.	1 x Intel Xeon E-2300, 8 cores max.
Memory Maximum	64GB	128GB
Storage maximum	16TB	144TB
Product Guide	https://lenovopress.com/lp0960	https://lenovopress.com/lp1548


ThinkSystem


RACK SERVERS


Lenovo Model	SR250	
Rack Units	1U	
Typical Workloads	Virtualization, entry-cloud, web, and data-analytics applications, blockchain, media streaming.	
Processor	1 x Intel Xeon E-2200, 6 cores max.	
Memory Maximum	128GB	
Storage maximum	77TB	
Product Guide	https://lenovopress.com/lp1272	
Lenovo Model	SR250 V2	
Rack Units	1U	
Typical Workloads	IT infrastructure, web, cloud, virtualization, and database.	
Processor	1 x Intel Xeon E-2300, 8 cores max.	
Memory Maximum	128TB	
Storage maximum	72TB	
Product Guide	https://lenovopress.com/lp1549	
Lenovo Model	SR635	
Rack Units	1U	
Typical Workloads	High Performance Computing (HPC), software-defined storage, database, business applications for small-to-medium business, and branch office.	
Processor	1 x AMD EPYC 7002/7003, 64 cores max.	
Memory Maximum	2TB	
Storage maximum	369TB	
Product Guide	https://lenovopress.com/lp1160	


ThinkSystem

Lenovo Model	SR655 
Rack Units	2U
Typical Workloads	AI inference, virtual desktop infrastructure (VDI), video analytics, software-defined storage, and network workloads (packet inspection, etc.).
Processor	1 x AMD EPYC 7002/7003, 64 cores max.
Memory Maximum	2TB
Storage maximum	369TB
Product Guide	https://lenovopress.com/lp1161




Lenovo Model	SR645 
Rack Units	1U
Typical Workloads	High Performance Computing (HPC), database, virtualization, and virtual desktop infrastructure (VDI).
Processor	2 x AMD EPYC 7002, 7003, 64 cores max.
Memory Maximum	8TB
Storage maximum	185TB
Product Guide	https://lenovopress.com/LP1280

Lenovo Model	SR665 
Rack Units	2U
Typical Workloads	AI Inference, virtualization, virtual desktop infrastructure (VDI), High Performance Computing (HPC), and Hyper-converged Infrastructure (HCI).
Processor	2 x AMD EPYC 7002, 7003, 64 cores max.
Memory Maximum	8TB
Storage maximum	492TB
Product Guide	https://lenovopress.com/LP1269

Lenovo Model	SR530 
Rack Units	1U
Typical Workloads	Office applications, public/private cloud, and web.
Processor	2 x Intel 2 nd Generation Xeon Scalable Processor, 16 cores max.
Memory Maximum	768GB
Storage maximum	123TB
Product Guide	https://lenovopress.com/lp1045

Lenovo Model	SR550 
Rack Units	2U
Typical Workloads	Office applications, public/private cloud, web, and media streaming.
Processor	2 x Intel 2 nd Generation Xeon Scalable Processor, 16 cores max.
Memory Maximum	768GB
Storage maximum	246TB
Product Guide	https://lenovopress.com/lp1046

Lenovo Model	SR570 
Rack Units	1U
Typical Workloads	Office applications, web, public/private cloud, virtualization, HPC, big data, and virtual desktop infrastructure (VDI).
Processor	2 x Intel 2 nd Generation Xeon Scalable Processor, 16 cores max.
Memory Maximum	1TB
Storage maximum	154TB
Product Guide	https://lenovopress.com/lp1047

Lenovo Model	SR590 
Rack Units	2U
Typical Workloads	Office applications, web, public/private cloud, virtualization, HPC, big data, virtual desktop infrastructure (VDI), media streaming.
Processor	2 x Intel 2 nd Generation Xeon Scalable Processor, 16 cores max.
Memory Maximum	1TB
Storage maximum	252TB
Product Guide	https://lenovopress.com/lp1048
Lenovo Model	SR630 V2 
Rack Units	1U
Typical Workloads	Virtualization and cloud computing, infrastructure security, systems management, enterprise applications, collaboration, databases, streaming media, web, and HPC.
Processor	2 x Intel 3 rd Generation Xeon Scalable Processor, 40 cores max.
Memory Maximum	84TB
Storage maximum	185TB
Product Guide	https://lenovopress.com/lp1391
Lenovo Model	SR650 V2 
Rack Units	2U
Typical Workloads	Virtualization and cloud computing, virtual desktop infrastructure (VDI), infrastructure security, systems management, enterprise applications, collaboration, databases, streaming media, web, and HPC.
Processor	2 x Intel 3 rd Generation Xeon Scalable Processor, 40 cores max
Memory Maximum	84TB
Storage maximum	492TB
Product Guide	https://lenovopress.com/lp1392

Lenovo Model	SR670 V2
Rack Units	3U
Typical Workloads	Artificial Intelligence (AI), High Performance Computing (HPC), Machine Learning (ML), Deep Learning(DL), and graphical workloads.
Processor	2 x Intel 3 rd Generation Xeon Scalable Processor, 40 cores max
Memory Maximum	4TB
Storage maximum	123TB
Product Guide	https://lenovopress.com/lp1393



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.

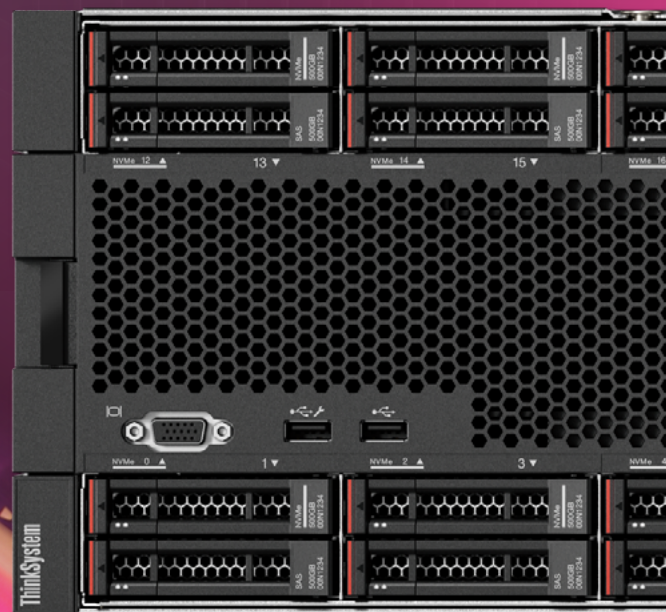
For more specific details regarding the products below, please [visit here](#).

If you're looking for feature comparison, please [visit here](#).

All our rack servers can be found [here](#).

Lenovo

ThinkSystem SR950



ThinkSystem

Lenovo Model	SR850
Rack Units	2U
Typical Workloads	Business applications, server consolidation, database, virtualization.
Processor	4 x Intel 2 nd Generation Xeon Scalable Processor, 28 cores max.
Memory Maximum	6TB
Storage maximum	246TB
Product Guide	https://lenovopress.com/lp1052




Lenovo Model	SR850P
Rack Units	2U
Typical Workloads	Business applications, server consolidation, database, virtualization.
Processor	4 x Intel 2 nd Generation Xeon Scalable Processor, 28 cores max.
Memory Maximum	6TB
Storage maximum	123TB
Product Guide	https://lenovopress.com/lp1237



Lenovo Model	SR850 V2
Rack Units	2U
Typical Workloads	Mission critical workloads scaling up from 2S systems such as enterprise virtualization, CRM, ERP, SQL databases, VDI and small-mid sized SAP HANA computing environments.
Processor	4 x Intel 3 rd Generation Xeon Scalable Processor, 28 cores max.
Memory Maximum	6TB
Storage maximum	369TB
Product Guide	https://lenovopress.com/lp1301



ThinkSystem

Lenovo Model	SR860 
Rack Units	4U
Typical Workloads	Business consolidation, database virtualization, data analytics, and scientific/technical applications.
Processor	4 x Intel 2 nd Generation Xeon Scalable Processor, 28 cores max.
Memory Maximum	6TB
Storage maximum	246TB
Product Guide	https://lenovopress.com/lp1053

Lenovo Model	SR860 V2 
Rack Units	4U
Typical Workloads	Mission critical workloads such as SAP HANA in-memory computing, transactional databases, deep learning, analytics, big data, and virtual machine density.
Processor	4 x Intel 3 rd Generation Xeon Scalable Processor, 28 cores max.
Memory Maximum	6TB
Storage maximum	737TB
Product Guide	https://lenovopress.com/lp1302

Lenovo Model	SR950 
Rack Units	4U
Typical Workloads	Virtualization, analytics, database, HPC, VDI, mission-critical applications.
Processor	8 x Intel 2 nd Generation Xeon Scalable Processor, 28 cores max.
Memory Maximum	24TB
Storage maximum	369TB
Product Guide	https://lenovopress.com/lp1054

ThinkSystem

ThinkSystem BLADES

ThinkSystem SN850

Lenovo

The orchestration platform for conducting tomorrow's business

Flexible infrastructure for ever-changing workloads. Resource management that leverages both hardware and systems management.




Flex System uses the latest generation of Intel Xeon SP to deliver more performance and bandwidth and far more capability to consolidate and virtualize than previous systems. Flex System is anchored by the Flex System Enterprise Chassis which enables high-speed performance with integrated servers and networking. Furthermore, its flexible design can meet the needs of varying workloads with independently scalable IT resource pools for higher utilization and lower cost per workload.

More info on chassis

Lenovo Model	SN550 V2
Rack Units	0.7 U
Typical Workloads	Flexible, high-performance blades for critical workloads, such as cloud, server virtualization, database, and virtual desktop infrastructure (VDI).
Processor	2 x Intel 3 rd Generation Xeon Scalable Processor, 36 cores max.
Memory Maximum	2TB
Storage maximum	24TB
Product Guide	https://lenovopress.com/lp1397

ThinkSystem

Lenovo Model	SN550 
Rack Units	0.7U
Typical Workloads	Flexible, high-performance blades for critical workloads, such as cloud, server virtualization, database, and virtual desktop infrastructure (VDI).
Processor	2 x Intel 2 nd Generation Xeon Scalable Processor, 28 cores max.
Memory Maximum	3TB
Storage maximum	31TB
Product Guide	https://lenovopress.com/lp1043

Lenovo Model	SN850 
Rack Units	1.4U
Typical Workloads	Optimized for high-end virtualization, mainstream database deployments, and memory-intensive, high-performance environments.
Processor	4 x Intel 2 nd Generation Xeon Scalable Processor, 28 cores max.
Memory Maximum	6TB
Storage maximum	61TB
Product Guide	https://lenovopress.com/lp1044

ThinkSystem

Lenovo Models	ThinkSystem NE2552E Flex Switch 	
Ports	Internal: 28x 10/25 Gb Ethernet ports or 14x 50 Gb Ethernet ports supporting 2 and 4 port 10Gb, 25Gb and 50Gb adapters External: 8x SFP+/SFP28 ports and 4x QSFP+/QSFP28 ports supporting 10Gb, 25Gb, 40Gb, 50Gb and 100Gb port speeds	
Data Sheet Product Guide	https://lenovopress.com/datasheet/ds0040 https://lenovopress.com/lp0854	
Lenovo Models	EN4091 10Gb Pass thru	SI4091 System Interconnect Module
Base Configuration Ports	14 x 1/10Gb internal ports 14 x 1/10Gb SFP + external transceivers	14 x 10Gb internal 10 x 10Gb SFP+ external
Recommended for:	Low cost unmanaged 10Gb, 1-1 direct connectivity solution	Low cost 10Gb, simple management connectivity
Product Guide	https://lenovopress.com/tips0865	https://lenovopress.com/tips1196
Lenovo Models	EN4093R 10Gb Scalable Switch	SI4093 System Interconnect Module
Base Configuration Ports	Up to 28 x 10Gb internal Up to 14 x 10Gb SFP+ and 2 x 40Gb or 4 x 10Gb QSFP+ external	Up to 28 x 10Gb internal Up to 14 x 10Gb SFP+ and 2 x 40Gb or 4 x 10Gb QSFP+ external
Recommended for:	Demanding Layer 2/3 10Gb environments with optional 40Gb uplinks	10/40Gb simplified management connectivity, with enhanced scalability and performance
Product Guide	https://lenovopress.com/tips1292	https://lenovopress.com/tips1294

ThinkSystem SN550



ThinkSystem

ThinkSystem DENSE-OPTIMISED

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.

ThinkSystem SD530



Lenovo

ThinkSystem

Lenovo Model	SD530
Rack Units	0.5U
Typical Workloads	HPC, VDI, Web serving, public/private cloud, virtualization.
Processor	2 x Intel 2 nd Generation Xeon Scalable Processor, 28 cores max.
Memory Maximum	2TB
Storage maximum	92TB
Product Guide	https://lenovopress.com/lp1041




Lenovo Model	SR670 V2
Rack Units	3U
Typical Workloads	The server delivers optimal performance for Artificial Intelligence (AI), High Performance Computing (HPC) and graphical workloads across an array of industries. Retail, manufacturing, financial services and healthcare industries can leverage the processing power of the GPUs in the SR670 V2 to extract greater insights and drive innovation utilizing machine learning (ML) and deep learning (DL).
Processor	2 x Intel 3 rd Generation Xeon Scalable Processor, 40 cores max.
Memory Maximum	2TB
Storage maximum	64TB
Product Guide	https://lenovopress.com/lp1393



ThinkSystem SR670



ThinkSystem

Lenovo Model	SD630 V2	
Rack Units	0.5 U	
Typical Workloads	The SD630 V2 is well suited for workloads ranging from cloud, analytics to AI and high performance computing application like Computer Aided Engineering (CAE) or Electronic Design Automation (EDA).	
Processor	2 x Intel 3 rd Generation Xeon Scalable Processor, 36 cores max.	
Memory Maximum	1TB	
Storage maximum	92.16TB	
Product Guide	https://lenovopress.com/lp1394	

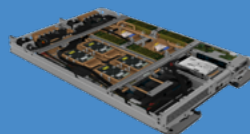
Lenovo ThinkSystem SD650 V2 and SD650-N V2 are based on our fourth generation Lenovo Neptune direct water cooling (DWC) platform leveraging two 3rd Gen Intel Xeon Scalable processors with NVIDIA HDR Infini Band networking. The ability to use water as the cooling method results in extreme performance in 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, 85 - 90% 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.

Lenovo Model	SD650 V2
Rack Units	1 U
Typical Workloads	Designed to industry-standards, the SD650 V2 is a general-purpose platform that is designed to give customers a flexible IT infrastructure. Customized solutions can be configured to provide an application-appropriate platform with a choice of servers, networking switches, adapters, and racks.
Processor	2 x Intel 3 rd Generation Xeon Scalable Processor, 40 cores max.
Memory Maximum	2TB
Storage maximum	3.84TB
Product Guide	https://lenovopress.com/lp1395



Lenovo Model	SD650-N V2
Rack Units	1 U
Typical Workloads	The ThinkSystem SD650-N V2 server is the next-generation high-performance GPU-rich server based on Lenovo's fourth generation Lenovo Neptune™ direct water cooling platform.
Processor	2 x Intel 3 rd Generation Xeon Scalable Processor, 40 cores max.
Memory Maximum	1TB - 2TB in plan for Q3
Storage maximum	3.84TB
Product Guide	https://lenovopress.com/lp1396



ThinkSystem SD530



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.



Note that the following offerings will be orderable in 2022: SE70, SE450

Lenovo

Lenovo Models	SE30	
Rack Units	Compact 0.81U desk unit with VESA and DIN mounting options	
Target workloads	Industrial Edge, MIL-SPEC tested, serial, bluetooth, wired, wireless and LTE options	
Processor	Intel Core i5 vPRO	
Memory Maximum	16GB	
Storage Maximum	1TB, up to 2x M.2	
Data Sheet	https://techtoday.lenovo.com/10189	

ThinkEdge

Lenovo Models	SE50	
Rack Units	Compat 2U desktop with DIN rail mounting options	
Target workloads	Smart edge with increased CPU requirements. CAN bus support, serial, wired, wireless options	
Processor	Intel Core i5 or i7 vPro	
Memory Maximum	32GB	
Storage Maximum	3TB, up to 3x M.2	
Data Sheet	https://techtoday.lenovo.com/10301	
Lenovo Models	SE70	
Rack Units	Desktop with general form factor or expanded form factor for multiple POE and power options wired.	
Target workloads	AI powered Edge including Computer Vision (CV)	
Processor	CPU: 6-core NVIDIA Carmel Arm®v8.2 64-bit CPU GPU: 384-core NVIDIA Volta™ GPU, 48 Tensor Cores	
Memory Maximum	TBC	
Storage Maximum	TBC	
Data Sheet	https://techtoday.lenovo.com/us/en/solutions/media/15139/download	

Lenovo Models	SE350	
Rack Units	0.5U also desktop, stacked, bookshelf, wall, DIN rail or ceiling mounting options	
Target workloads	Edge computing (IoT, AI, machine learning), retail, video security, inventory management, building control, telecommunications, manufacturing, distribution.	
Processor	1 x Intel Xeon D-2100, 16 cores max.	
Memory Maximum	256GB	
Storage Maximum	16TB	
Product Guide	https://lenovopress.com/lp1168	
Lenovo Models	SE450	
Rack Units	2U short depth 300mm or short depth 360mm	
Target workloads	GPU rich, CPU intensive edge applications including Smart Manufacturing, Smart Cities, Smart Retail, Smart Telecom.	
Processor	1 x Intel 3rd Generation Xeon Scalable Processor, 36 cores max.	
Memory Maximum	1TB	
Storage	Up to 6x 2.5" 7mm drives, up to 6x NVMe, 2xM.2 Boot drives	
Data Sheet	https://lenovopress.com/datasheet/ds0135	

For more information on Edge solution visit

<https://lenovo.com/thinkedge>

<https://www.lenovo.com/gb/en/data-center/solutions/edge-computing/>

<https://techtoday.lenovo.com/gb/en/solutions/smb/thinkedge>

ThinkEdge

ThinkAgile

STORAGE

Lenovo

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 DM5000F

Lenovo




ThinkSystem

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 	DM5000H 	DM3000H 
Target Workloads	Hybrid Cloud, Artificial Intelligence, Big Data Analytics, Engineering and Design	Artificial Intelligence Data Analytics Enterprise Applications Engineering and Design	Virtualization Microsoft Solutions Backup & Recovery File Services
Max Drives per HA Pair (HDD/SSD)	720	144	144
Maximum Raw Capacity per HA Pair	11.2PB	720	720
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	https://lenovopress.com/lp1270	https://lenovopress.com/lp0885	https://lenovopress.com/lp0884



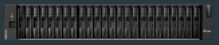
ThinkSystem



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	Wide range of enterprise workloads, including big data and analytics, artificial intelligence, engineering and design, enterprise applications, and other storage I/O-intensive applications	Wide range of enterprise workloads, including big data and analytics, artificial intelligence, engineering and design, enterprise applications, and other storage I/O-intensive applications
Max Drives per HA Pair (SSD)	480 (48 NVMe + 432 SAS)	48 NVMe	144
Maximum Raw Capacity per HA Pair	7.37PB	737.28TB	2.2PB
Expansions Supported	DM240S, DM240N	DM240N	DM240S
Protocols Supported	FC, iSCSI, NFS, pNFS, SMB, NVMe/FC, S3	SAN Only: FC, iSCSI, NVMe/FC Unified: FC, iSCSI, NFS, pNFS, SMB, NVMe/FC, S3	SAN Only: FC, iSCSI Unified FC, iSCSI, NFS, pNFS, SMB, 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	http://lenovopress.com/lp1271	http://lenovopress.com/lp1365	http://lenovopress.com/lp0911

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	DE6000H 	DE4000H 	DE2000H 
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	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	Perfect fit for small offices and remote/branch offices of large enterprises that run a wide range of workloads, including big data and analytics, video surveillance, technical computing, backup and recovery, and other storage I/O-intensive application
Max Drives (HDD/SSD)	480/120	192/120	96/96
Maximum Raw Capacity	8.64PB	3.46PB	1.73PB
Expansions Supported	Up to 7 DE240S, DE120S Up to 3 DE600S	Up to 7 DE240S, DE120S Up to 3 DE600S	Up to 3 DE240S, DE120S
Protocols Supported	FC, iSCSI, SAS		
DE Series Optional Software	Drive Encryption, Snapshots upgrade, asynchronous mirroring, synchronous mirroring (DE6000H and DE4000H only)		
Datasheet	https://www.lenovopress.com/lp0883	https://www.lenovopress.com/lp0882	https://www.lenovopress.com/lp0881





Sub-Series	DE All-Flash Systems	
Model	DE6000F 	DE4000F 
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	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 (SSD)	120	120
Maximum Raw Capacity	1.84PB	1.84PB
Expansions Supported	Up to 4 DE240S	Up to 4 DE240S
Protocols Supported	FC, iSCSI, SAS	
Software Features	Snapshots, Asynchronous mirroring, Synchronous mirroring, Drive Encryption	
Datasheet	https://www.lenovopress.com/lp0910	http://www.lenovopress.com/lp0909

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	ThinkSystem DB630 	ThinkSystem DB720 	ThinkSystem DB620 	ThinkSystem DB610 
Target Workloads	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 midsize enterprise environments	Perfect for highly virtualized environments to meet the demands of hyper-scale, private cloud storage, and growing flash-based storage environments	Perfect for Flash and NVMe Storage workloads in small to midsize enterprise environments
Ports	96x 32Gb SFP+ ports 8x 128Gb QSFP+ ports	64x 64Gb SFP+ ports	48x 32Gb SFP+ ports 4x 128Gb QSFP+ ports	24x 32Gb SFP+ ports
Power Supply	Redundant Hot Swap power supplies	Redundant Hot Swap power supplies	Redundant Hot Swap power supplies	One fixed power supply
Product Guide	https://lenovopress.com/lp1090	https://lenovopress.com/lp1358	https://lenovopress.com/lp0580	https://lenovopress.com/lp0582

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/D1224)	Lenovo High-Density D3284
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
Form Factor	2U	5U
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.
Storage Capacity	D1212: Up to 1.73 PB (96x 18TB LFF NL SAS HDDs) D1224: Up to 1.47 PB (192x 7.68 TB SFF SAS SSDs)	Up to 6.05PB (336x 18TB NL SAS HDDs)
Product Guide	https://lenovopress.com/lp0512	https://lenovopress.com/lp0513



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 Tap Autoloader
Target Workload	Backup and archive	
Available Models	<ul style="list-style-type: none"> • LTO Ultrium 9 • LTO Ultrium 8 • LTO Ultrium 7 	<ul style="list-style-type: none"> • 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	https://lenovopress.com/tips1305	https://lenovopress.com/tips1303
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	TS4300 Tape Library Base Model 6741A1F TS4300 Tape Library Expansion Model 6741A3F	
Form Factor	Base module: 3U rack-mount or stand-alone. Expansion module: 3U rack-mount; up to 6 expansion modules. 7-module library: 21U rack-mount.	
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.	
Cartridge Capacity	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	Per module: LTO 9 (L9): Up to 680 TB LTO 8: Up to 480 TB LTO 7: Up to 240 TB Per 7-module library: LTO 9 (L9): Up to 5.00 PB LTO 8: Up to 3.36 PB LTO 7: Up to 1.68 PB	
Native Data Transfer Rate	LTO 9 FH: Up to 400 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	https://lenovopress.com/lp0773	

* With 2.5:1 compression ratio

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.

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

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.

Lenovo

ThinkSystem

SOFTWARE-DEFINED INFRASTRUCTURE

Lenovo

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, pre-built 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.

On top, ThinkAgile Advantage provides a first-class, white glove experience with end to end data center services to make the most of your Lenovo hyperconverged ThinkAgile products and solutions.

You'll have a remote single point of contact providing direct access to Level 2 technicians skilled in hardware, software, and advanced troubleshooting to help maintain smooth data center operations 24x7.

It also includes hardware and software deployment by skilled Lenovo professionals, onsite hardware repair and is included with ThinkAgile Advantage Support, 3 to 5 years.

ThinkAgile

ThinkAgile SX FOR MICROSOFT AZURE STACK

Lenovo ThinkAgile SX for Microsoft Azure Stack Hub 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 SX for Microsoft Azure Stack Hub 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 for Microsoft Azure Stack Hub 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 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	https://lenovopress.com/lp1177		



ThinkAgile MX SERIES

Lenovo

Azure Stack HCI is an HCI host operating system from Microsoft, delivered as an Azure service, providing the latest and up-to-date security, performance and feature updates. Azure Stack HCI 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 Series, Appliances and Certified Nodes, refreshed with the latest Intel technology as Intel Whitley platform with Xeon Scalable 3rd gen processors, 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 appliances map to Microsoft Azure Stack HCI Integrated Systems and ThinkAgile MX Certified Nodes map to Microsoft Azure Stack HCI Validated Nodes.

ThinkAgile MX Series 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 Appliance models includes the preloaded Azure Stack HCI operating system only and requires activation via a CSP such as Lenovo Cloud Marketplace, with the option to purchase a Windows Server 2019 Datacenter license if unlimited guest OS VMs are desired, while ThinkAgile MX Certified Node can optionally have Windows Server 2019 Datacenter preinstalled.

ThinkAgile MX Series also features the MX102x model for Edge workloads and includes:

- Fully validated and integrated hardware and firmware.
- ThinkAgile Advantage and Single Point of Support.
- Enterprise Support Services.
- Optional deployment services.

Lenovo ThinkAgile MX series with Intel processors is available as both Purley platform with Cascade Lake Intel Xeon Scalable 2nd gen processors and the latest Whitley platform featuring Ice Lake Intel Xeon Scalable 3rd gen processors models.

Lenovo Models (Intel Xeon Scalable 2nd gen platform)	ThinkAgile MX352x-F and MX352x-H (x=0 for Appliance, X=1 for Certified Node, F=All Flash, H= Hybrid)	ThinkAgile MX102x (x=0 for Appliance, X=1 for Certified Node)
Target Workload	LOB apps, large file services, SQL, VDI, collaboration	ROBO and Edge
Form Factor	2U	1U half-wide
Processor	2x Intel Xeon Scalable Gen 2 family processors	1x Intel Xeon D2100 Series
GPU	Nvidia T4, V100, AMD Radeon MI25, (up to 5x)	Nvidia T4 (max 1)
Software (included with Appliances, optional with Certified Nodes)	Appliances include the preloaded Azure Stack HCI 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.	
Product Guide	MX352x-F: https://lenovopress.com/lp1176 MX352x-H: https://lenovopress.com/lp1175	MX102x: https://lenovopress.com/lp1296

ThinkAgile

LENOVO MODELS (Intel Xeon Scalable 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)
Target Workload	LOB apps, large file services, SQL, VDI, collaboration	
Form Factor	1U	2U
Processor	2x Intel Xeon Scalable Gen 3 family processors	
GPU	Nvidia T4 (up to 3x)	Nvidia A10, A40, A100, V100, T4, Quadro RTX6000, (up to 8x)
Software (included with Appliances, optional with Certified Nodes)	Appliances include the preloaded Azure Stack HCI 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.	
Product Guide	https://lenovopress.com/lp1511	https://lenovopress.com/lp1512



ThinkAgile

ThinkAgile HX SERIES

Lenovo ThinkAgile HX Series, 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 series 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 series ships from Lenovo as fully integrated system (Appliances) and as validated building blocks (Certified Nodes), now also configurable with the latest Intel technology as Intel Whitley platform with Xeon Scalable 3rd gen processors, 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 HX series with Intel processors is available as both Purley platform with Cascade Lake Intel Xeon Scalable 2nd gen processors and the latest Whitley platform featuring Ice Lake Intel Xeon Scalable 3rd gen processors models.

The ThinkAgile logo is positioned in the bottom right corner of the page. It features the word "ThinkAgile" in a white, sans-serif font. The "i" in "Think" has a red dot. The background of the entire page is a vibrant orange with a hexagonal pattern. The bottom half of the page transitions into a dark blue background with abstract, colorful light trails in red, yellow, and green, suggesting motion and technology. In the bottom left corner, there are several grey triangles of different sizes. At the very bottom, there is a small circular icon containing the number 40, and a checkered flag is visible in the bottom right corner.

THINKAGILE HX1000 SERIES (INTEL)	HX1021 (Certified Node only)	HX132x (x=0 for Appliance, X=1 for Certified Node)	ThinkAgile HX133x (x=0 for Appliance, X=1 for Certified Node)
Target Workload	Edge	Remote Office/Branch Office (ROBO) Replication Target	Remote Office/Branch Office (ROBO) Replication Target
Form Factor	1U half-width	1U	1U
Processor	1x Intel Xeon D2100 Series	1x Xeon Scalable Gen 2 family processors	1x Xeon Scalable Gen 3 family processors
GPU adapters		1x Nvidia T4	1x Nvidia T4
Drive Bays	Up to 3x M.2 adapters for up to 10x M.2 drives	4x 3,5"	4x 3,5" (front) + 2x 2,5" (rear)
Software (included with Appliances, optional with Certified Nodes)	Nutanix Acropolis: Starter, Pro, and Ultimate editions. Nutanix Prism, Nutanix Calm (optional), Nutanix Flow (optional). Any other Nutanix licence can purchased through Lenovo and added to the configuration.		
Product Guide	HX1021: https://lenovopress.com/lp1384	HX1320: https://lenovopress.com/lp1521 HX1321: https://lenovopress.com/lp1521	HX133x: https://lenovopress.com/lp1481
THINKAGILE HX2000 SERIES (INTEL)	HX2320 (x=0 for Appliance, X=1 for Certified Node)		ThinkAgile HX233x (x=0 for Appliance, X=1 for Certified Node)
Target Workload	Small and Medium Business		
Form Factor	1U		1U
Processor	2x Xeon Scalable Gen 2 family processors		2x Xeon Scalable Gen 3 family processors
GPU adapters			2x Nvidia T4
Drive Bays	4x 3,5"		4x 3,5" (front) + 2x 2,5" (rear)
Software (included with Appliances, optional with Certified Nodes)	Nutanix Acropolis: Starter, Pro, and Ultimate editions. Nutanix Prism, Nutanix Calm (optional), Nutanix Flow (optional). Any other Nutanix licence can purchased through Lenovo and added to the configuration.		
Product Guide	HX2320: https://lenovopress.com/lp1521 HX2321: https://lenovopress.com/lp1521		HX233x: https://lenovopress.com/lp1481

ThinkAgile

THINKAGILE HX3000 SERIES (INTEL)	HX332x (+ SAP HANA) (x=0 for Appliance, X=1 for Certified Node)	HX352x-G (x=0 for Appliance, X=1 for Certified Node)	HX372x (x=0 for Appliance, X=1 for Certified Node)	ThinkAgile HX333x (x=0 for Appliance, X=1 for Certified Node)
Target Workload	General Virtualization and VDI	Compute Heavy with GPU	Dense	General Virtualization and VDI
Form Factor	1U	2U	2U 4N	1U
Processors	2x Xeon Scalable Gen 2 family processors (per Node)			2x Xeon Scalable Gen 3 family processors
GPU adapters		Nvidia M10, M60, V100, T4 (up to 5x)		2x Nvidia T4
Drive Bays	up to 12x 2,5"	Up to 16x 2,5"	Up to 6x 2,5" per Node	10x 2,5" (front) + 2x 2,5" (rear), SAS, SATA NVMe
Software (included with Appliances, optional with Certified Nodes)	Nutanix Acropolis: Starter, Pro, and Ultimate editions. Nutanix Prism, Nutanix Calm (optional), Nutanix Flow (optional). Any other Nutanix licence can purchased through Lenovo and added to the configuration.			
Product Guide	HX3320: https://lenovopress.com/lp1521 HX3320 SAP HANA: https://lenovopress.com/lp1216 HX3321: https://lenovopress.com/lp1521 HX3321 SAP HANA: https://lenovopress.com/lp1217	HX3520-G: https://lenovopress.com/lp1522 HX3521-G: https://lenovopress.com/lp1522	HX3720: https://lenovopress.com/lp1123 HX3721: https://lenovopress.com/lp1131	HX333x: https://lenovopress.com/lp1481
THINKAGILE HX3000 SERIES (AMD)	HX337x (x=5 for Appliance, X=6 for Certified Node)			
Target Workload	General Virtualization and VDI, Compute Heavy with GPU			
Form Factor	1U			
Processor	2x AMD EPYC 7002 family processors			
GPU adapters	Up to 2x Nvidia T4			
Drive Bays	up to 12x 2,5"			
Software (included with Appliances, optional with Certified Nodes)	Nutanix Acropolis: Starter, Pro, and Ultimate editions. Nutanix Prism, Nutanix Calm (optional), Nutanix Flow (optional). Any other Nutanix licence can purchased through Lenovo and added to the configuration.			
Product Guide	HX337x: https://lenovopress.com/lp1383			



ThinkAgile HX5520

THINKAGILE HX5000 SERIES (INTEL)	HX552x (x=0 for Appliance, X=1 for Certified Node)	ThinkAgile HX553x (x=0 for Appliance, X=1 for Certified Node)
Target Workloads	Big Data and High Capacity	
Form Factor	2U	2U
Processor	2x Xeon Scalable Gen 2 family processors	2x Xeon Scalable Gen 3 family processors
Drive Bays	Up to 14x 3,5"	12x 3,5" (front) + 4x 2,5" (rear)
Software (included with Appliances, optional with Certified Nodes)	Nutanix Acropolis: Starter, Pro, and Ultimate editions. Nutanix Prism, Nutanix Calm (optional), Nutanix Flow (optional). Any other Nutanix licence can purchased through Lenovo and added to the configuration.	
Product Guide	HX5520: https://lenovopress.com/lp1522 HX5521: https://lenovopress.com/lp1522	HX553x: https://lenovopress.com/lp1482

THINKAGILE HX7000 SERIES (INTEL)	HX752x (+ SAP HANA) (x=0 for Appliance, X=1 for Certified Node)	ThinkAgile HX753x (+ SAP HANA) (x=0 for Appliance, X=1 for Certified Node)	HX782x (+SAP HANA) (x=0 for Appliance, X=1 for Certified Node)
Target Workloads	Databases and High Performance		
Form Factor	2U	2U	4U
Processor	2x Xeon Scalable Gen 2 family processors	2x Xeon Scalable Gen 3 family processor	4x Xeon Scalable Gen 2 family processors
Drive Bays	Up to 24x 2,5"		
Drive Bays	Nutanix Acropolis: Starter, Pro, and Ultimate editions. Nutanix Prism, Nutanix Calm (optional), Nutanix Flow (optional). Any other Nutanix licence can purchased through Lenovo and added to the configuration.		
Product Guide	HX7520: https://lenovopress.com/lp1522 HX7520 SAP HANA: https://lenovopress.com/lp1218 HX7521: https://lenovopress.com/lp1522 HX7521 SAP HANA: https://lenovopress.com/lp1219	HX753x (incl SAP HANA): https://lenovopress.com/lp1482	HX7820: https://lenovopress.com/lp1126 HX7820 SAP HANA: https://lenovopress.com/lp0992 HX7821: https://lenovopress.com/lp1134 HX7821 SAP HANA: https://lenovopress.com/lp0993

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 technology as Intel Whitley platform with Xeon Scalable 3rd gen processors. 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.

Lenovo ThinkAgile VX series with Intel processors is available as both Purley platform with Cascade Lake Intel Xeon Scalable 2nd gen processors and the latest Whitley platform featuring Ice Lake Intel Xeon Scalable 3rd gen processors models.

THINKAGILE VX 2000 SERIES (INTEL)	ThinkAgile VX2320	ThinkAgile VX 1U Certified Node
Target Workload	Small and Medium sized businesses	
Form Factor	1U	1U
Processor	Up to 2x Xeon Scalable Gen 2 family processors	Up to 2x Xeon Scalable Gen 3 family processors
Drive Bays	4x 3.5"	4x 3.5" SAS/SATA/NVMe
Software (included with Appliances, optional with Certified Nodes)	<p>Software licenses that must be purchased from Lenovo:</p> <ul style="list-style-type: none">• 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. <p>Software licenses that can be purchased from Lenovo or provided by the customer:</p> <ul style="list-style-type: none">• VMware vSphere: Standard, Enterprise Plus, or ROBO.• VMware Horizon: Standard (optional).• VMware vCenter Server: Foundation or Standard.	
Product Guide	VX2320: https://lenovopress.com/lp1501 VX 1U Certified Node: https://lenovopress.com/lp1501	VX2330: https://lenovopress.com/lp1479

ThinkAgile

THINKAGILE VX3000 SERIES (INTEL)	ThinkAgile VX3320 ThinkAgile VX 1U Certified Node	ThinkAgile VX3330	ThinkAgile VX3520-G ThinkAgile VX 2U Certified Node	ThinkAgile VX3530	ThinkAgile VX372x (x=0 for Appliance, X=1 for Certified Node)
Target Workloads	Compute-Heavy		VDI Graphic Intense		Dense
Form Factor	1U	1U	2U	2U	2U 4N
GPU Adapters			NVIDIA Tesla M10, M60, M125, V340, P620, P4000, V100, T4 (up to 5)	Up to 8x, up to 150W each	
Processor	2x Xeon Scalable Gen 2 family processors (per Node)	Up to 2x Xeon Scalable Gen 3 family processors	2x Xeon Scalable Gen 2 family processors	Up to 2x Xeon Scalable Gen 3 family processors	2x Xeon Scalable Gen 2 family processors (per Node)
Drive Bays	up to 10x 2,5"	12x 2.5" SAS/SATA or NVMe	Up to 16x 2,5"	24x 2,5"	Up to 6x 2,5" per Node
Software (included with Appliances, optional with Certified Nodes)	<p>Software licenses that must be purchased from Lenovo:</p> <ul style="list-style-type: none"> 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. <p>Software licenses that can be purchased from Lenovo or provided by the customer:</p> <ul style="list-style-type: none"> VMware vSphere: Standard, Enterprise Plus, or ROBO. VMware Horizon: Standard (optional). VMware vCenter Server: Foundation or Standard. 				
Product Guide	VX3320: https://lenovopress.com/lp1501 VX 1U Certified Node: https://lenovopress.com/lp1501	VX333x: https://lenovopress.com/lp1479	VX3520-G: https://lenovopress.com/lp1500 VX 2U Certified Node: https://lenovopress.com/lp1500	VX3530-G: https://lenovopress.com/lp1480	VX3720: https://lenovopress.com/lp1138 VX3721: https://lenovopress.com/lp1131
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, V100 (16GB/32GB), 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)	<p>Software licenses that must be purchased from Lenovo:</p> <ul style="list-style-type: none"> 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. <p>Software licenses that can be purchased from Lenovo or provided by the customer:</p> <ul style="list-style-type: none"> VMware vSphere: Standard, Enterprise Plus, or ROBO. VMware Horizon: Standard (optional). VMware vCenter Server: Foundation or Standard. 				
Product Guide	VX3575-G: https://lenovopress.com/lp1473 (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

THINKAGILE VX5000 SERIES (INTEL)	ThinkAgile VX5520 ThinkAgile VX 2U Certified Node	ThinkAgile VX5530
Target Workloads	Storage Heavy workloads Big Data/Analytics Email Large Databases and other high-capacity storage needs	
Form Factor	2U	2U
Processor	2x Xeon Scalable Gen 2 family processors	Up to 2x Xeon Scalable Gen 3 family processors
Drive Bays	Up to 14x 3,5"	16x 3,5"
Software (included with Appliances, optional with Certified Nodes)	<p>Software licenses that must be purchased from Lenovo:</p> <ul style="list-style-type: none"> • 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. <p>Software licenses that can be purchased from Lenovo or provided by the customer:</p> <ul style="list-style-type: none"> • VMware vSphere: Standard, Enterprise Plus, or ROBO. • VMware Horizon: Standard (optional). • VMware vCenter Server: Foundation or Standard. 	
Product Guide	VX5520: https://lenovopress.com/lp1500 VX 2U Certified Nodes: https://lenovopress.com/lp1500	VX5530: https://lenovopress.com/lp1480
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 or 2x AMD EPYC 7003 Series Processors	
Drive Bays	Up to 16x 3,5"	
Software (included with Appliances, optional with Certified Nodes)	<p>Software licenses that must be purchased from Lenovo:</p> <ul style="list-style-type: none"> • 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. <p>Software licenses that can be purchased from Lenovo or provided by the customer:</p> <ul style="list-style-type: none"> • VMware vSphere: Standard, Enterprise Plus, or ROBO. • VMware Horizon: Standard (optional). • VMware vCenter Server: Foundation or Standard. 	
Product Guide	VX5575: https://lenovopress.com/lp1473 (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 VX7000 2P SERIES (INTEL)	ThinkAgile VX7320-N VX 1U Certified Nodes	ThinkAgile VX7330-N	ThinkAgile VX7520 VX 2U Certified Nodes	ThinkAgile VX753x (x=0 for Appliance, X=1 for Certified Node)
Target Workloads	High-performance workloads Databases load balancing clusters.		In-Memory Databases High-performance storage	
Form Factor	1U	1U	2U	2U
Processor	2x Xeon Scalable Gen 2 family processors	2x Xeon Scalable Gen 3 family processors	2x Xeon Scalable Gen 2 family processors	2x Xeon Scalable Gen 3 family processors
Drive Bays	10x 2,5" U.2 NVMe	10x 2,5" NVMe	Up to 24x 2,5"	Up to 40x 2,5"
Software (included with Appliances, optional with Certified Nodes)	Software licenses that must be purchased from Lenovo: <ul style="list-style-type: none">• 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: <ul style="list-style-type: none">• VMware vSphere: Standard, Enterprise Plus, or ROBO.• VMware Horizon: Standard (optional).• VMware vCenter Server: Foundation or Standard.			
Product Guide	VX7320-N: https://lenovopress.com/lp1501 VX 1U Certified Nodes: https://lenovopress.com/lp1501	VX7330-N: https://lenovopress.com/lp1479	VX7520: https://lenovopress.com/lp1500 VX 2U Certified Nodes: https://lenovopress.com/lp1500	VX753x: https://lenovopress.com/lp1480
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 26x 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: <ul style="list-style-type: none">• 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: <ul style="list-style-type: none">• VMware vSphere: Standard, Enterprise Plus, or ROBO.• VMware Horizon: Standard (optional).• VMware vCenter Server: Foundation or Standard.			
Product Guide	VX757x: https://lenovopress.com/lp1473 (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				
THINKAGILE VX7000 4P/8P SERIES (INTEL)	ThinkAgile VX782x (x=0 for Appliance, X=1 for Certified Node) ThinkAgile VX7821 SAP HANA			
Target Workloads	Mission Critical High Performance			
Form Factor	4U			
Processor	Up to 8x Xeon Scalable Gen 2 family processors			
Drive Bays	Up to 24x 2,5"			
Software (included with Appliances, optional with Certified Nodes)	Software licenses that must be purchased from Lenovo: <ul style="list-style-type: none">• 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: <ul style="list-style-type: none">• VMware vSphere: Standard, Enterprise Plus, or ROBO.• VMware Horizon: Standard (optional).• VMware vCenter Server: Foundation or Standard.			
Product Guide	VX7820: https://lenovopress.com/lp1490 VX7821 SAP HANA: https://lenovopress.com/lp1250			

ThinkAgile ADVANTAGE SUPPORT FOR APPLIANCES AND CERTIFIED NODES

ThinkAgile Advantage provides a first-class, white glove experience with end to end data center services to make the most of your ThinkAgile products and solutions. You'll have a remote single point of contact providing direct access to Level 2 technicians skilled in hardware, software, and advanced troubleshooting to help maintain smooth data center operations 24x7.

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 Advantage support grants

- 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)

Check on [Lenovo.com](https://lenovo.com) to know more on Lenovo Services for Data Center.

**ThinkAgile**

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

Lenovo

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.

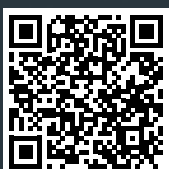
Lenovo's modern open approach, reduces complexity, enhances availability and ensures secure control, for even the largest of environments.

XClarity Administrator

- 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 multiple 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 or 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
Administrator
[trial version](#)

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

<https://lenovopress.com/lp0858>

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

<https://lenovopress.com/ds0113>

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.

Lenovo

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

<https://lenovopress.com/lp1079>



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.

Lenovo

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

<https://lenovopress.com/lp1236>

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

<https://lenovopress.com/lp1264>

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.

Lenovo

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

<https://lenovopress.com/lp1265>

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

<https://en.resources.lenovo.com/solution-brief-documents>

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

<https://www.lenovo.com/us/en/servers-storage/solutions/>

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.

Lenovo DSS-G

Project	DSS-G for IBM Spectrum Scale
Solution Definition	<ul style="list-style-type: none">• 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 4, 6, 8, 10, 12, 14, 16, and 18TB 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 see this link
<https://lenovopress.com/lp1538>



Lenovo

LENOVO SHOWCASE

Lenovo

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 <http://www.lenovo.com>.

Lenovo

ThinkSystem 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.

Lenovo

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

TruScale Infrastructure Services

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

6. RETIRE

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

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.com/datacenterservices

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 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

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