Lenovo ThinkAgile FX630 V4 Hyperconverged System
Product Guide

The Lenovo ThinkAgile FX630 V4 are 2-socket 1U systems that feature the Intel® Xeon® 6 Scalable processors (formerly code named "Granite Rapids"). The latest Lenovo ThinkAgile FX V4 Series systems are backed by the power of Intel® Xeon® 6 processors to deliver more cores, higher memory bandwidth, and enhanced AI acceleration in every core. These systems are designed to make AI accessible with new servers that are purpose-built and optimized to maximize performance and efficiency for wide range of targeted workloads, from compute-intensive AI to general-purpose data services while flexibly matching the specific workloads needs of any business. ThinkAgile FX V4 Series systems also support hardware accelerators from Graphics Processing Units (GPUs) for maximum performance. ThinkAgile FX future-proof your investment with seamless HCI software transitions. The ThinkAgile ThinkAgile FX630 V4 provides up to 86 cores and support for the new PCIe 5.0 standard for I/O, the ThinkAgile FX630 V4 offers the ultimate in two-socket performance in a 1U form factor. Lenovo offers ThinkAgile FX with a unique, industry first flexibility for software-defined approach to hyper convergence, leveraging the ability to move between hypervisors of your choice to deliver compute, storage and management in a tightly integrated software stack and future-proof your investment with seamless HCI software transitions between VMware and Nutanix.

Suggested uses: AI Inference, virtualization, VDI, ROBO,

Figure 1. Lenovo ThinkAgile ThinkAgile FX630 V4 with 2.5-inch drive bays

Did you know?

The ThinkAgile FX630 V4 systems are built on the Lenovo ThinkSystem SR630 V4 server that features enterprise-class reliability, management, and security.

The ThinkAgile FX630 V4 comes paired with Premier Support in supported countries. It offers a single point of support for quick 24/7 problem reporting and resolution.

The ThinkAgile FX630 V4 supports the VMware to Nutanix stack conversion that is handled by professional services.

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Key features

ThinkAgile FX630 V4 features

The ThinkAgile FX630 V4 offer the following key features:

- Factory-integrated, pre-validated ready-to-go integrated systems built on proven and reliable Lenovo ThinkSystem servers that provide compute power for a variety of workloads and applications and powered by industry-leading hyperconverged infrastructure software from VMware.

- Fully tested and validated for vSAN compliance with VMware and includes the latest supported firmware levels integrated at factory.

- Fully validated and integrated hardware and firmware that is certified with Nutanix Cloud Platform (NCP).

- Provide a convenient path to migrate a hyperconverged solution powered by VMware Cloud Foundation (VCF) or VMware vSphere Foundation (VVF) software stacks to Nutanix AHV.   Conversion supported with mandatory Lenovo Professional services

- Provide quick and convenient path to implement a hyperconverged solution powered by VMware Cloud Foundation (VCF) or VMware vSphere Foundation (VVF) software stacks with Lenovo Premier Support and Services offering deployment and single point of support services for the solution. Licenses for VCF or VVF can be obtained by contacting a Broadcom Seller directly or a Broadcom authorized software partner.

- Meet various workload demands with performance-optimized all NVMe drives certified with VMware by Broadcom.

- Three and Five-year hardware warranty, bundled with Premier Support in supported countries that provides a 24x7 Single Point of Support, problem reporting and resolution.

When running VMware software on ThinkAgile FX630 V4 delivers the following key features:

- Distributed architecture that allows "pay-as-you-grow", non-disruptive scaling by adding new nodes to the cluster (scale-out) to increase capacity and performance.

- Advanced capacity management, including deduplication, compression, and erasure coding (RAID 5/6), which helps deliver greater storage utilization with dramatically lower storage capacity and costs.

- Provides 4x higher performance through optimized storage compression techniques with vSAN ESA.

- Automation of VM storage provisioning and control of storage service levels (capacity, performance, availability) with VM-centric policies to load balance storage resources.

- Native HCI security solution with two-factor authentication (SecurID and CAC) and data-at-rest encryption that does not require self-encrypting drives (SEDs).

- Stretched cluster with local and site failure protection between two geographically dispersed sites for higher level of availability with near zero downtime.

- Centralized management with provisioning, administering, and monitoring virtual resources across multiple hosts and clusters from a centralized interface.

- Rapid workload provisioning, simplified data center operations, increased business efficiency, and decreased CAPEX and OPEX costs.

- VM and data protection with agent-less, image-level virtual machine backups and application-aware protection for business-critical Microsoft applications (Exchange, SQL Server, SharePoint) along with WAN-efficient, encrypted backup data replication.

- Reduced unplanned downtime and virtually eliminated planned downtime for server and storage maintenance with live workload migration, high availability, and fault tolerance.

- Enhanced application performance and availability with resource management, load balancing, and access prioritization.
- Intelligent operations management and automation to proactively monitor and manage compute, storage, and networking resources, identify performance bottlenecks, and re-balance workloads by leveraging predictive analytics.
- Capacity planning and optimization guidance to address future needs with performance trends, projections and extended forecasts.
- Managing remote offices and branch offices with rapid provisioning of servers through virtualization, minimization of host configuration drift, and enhanced visibility into regulatory compliance, across multiple sites.

When running Nutanix software on ThinkAgile FX630 V4 delivers the following key features:

- Mission-critical performance and ultra-reliability of Lenovo's platforms married with the dramatic efficiency and cost savings of the industry-leading Nutanix Enterprise Cloud OS .
- A natively integrated solution for data protection and continuous availability at VM granularity that gives administrators an affordable range of options to meet the recovery point objectives (RPO) and recovery time objectives (RTO) for different applications.
- A fault resistant platform, with no single point of failure and no bottlenecks with shared-nothing architecture, where all data, metadata and services are distributed to all nodes within the cluster, which is built to detect, isolate and recover from failures anywhere in the system.
- An intuitive user-centric management experience to simplify every aspect of the IT infrastructure lifecycle and provide a single pane of glass to monitor and control Nutanix clusters, with simplified workflows and rich automation for common administrative tasks.
- Powerful security features, such as two-factor authentication and data-at-rest encryption, with a security development lifecycle that is integrated into product development to help customers meet the most stringent security requirements.

Hardware features

The ThinkAgile FX630 V4 are based on the ThinkSystem SR630 V4 and have the following hardware features:

Scalability and performance

The ThinkAgile FX630 V4 offer numerous features to boost performance, improve scalability and reduce costs:

- Supports two Intel Xeon 6700-series or 6500-series processors with Performance-cores (P-cores)
  - Up to 86 cores and 172 threads
  - Core speeds of up to 4 GHz
  - TDP ratings of up to 350 W
- Support for DDR5 memory DIMMs to maximize the performance of the memory subsystem:
  - Up to 32 DDR5 memory DIMMs, 16 DIMMs per processor
  - 8 memory channels per processor (2 DIMMs per channel)
  - Supports 1 DIMM per channel operating at 6400 MHz
  - Supports 2 DIMMs per channel operating at 5200 MHz
  - Supports 1 MRDIMM per channel operating at 8000 MHz
  - Using 256GB 3D RDIMMs, the server supports up to 8TB of system memory
- Support for MRDIMMs for increased memory bandwidth with memory bus speeds of up to 8000 MHz. MRDIMMs require Intel Xeon 6700P-series processors.
- Support for up to three single-width GPUs, each up to 75W for substantial processing power in a 1U system.
- Supports up to 10x 2.5-inch NVMe front-accessible hot-swap drive bays.

- Supports up to 10x NVMe drives without oversubscription of PCIe lanes (1:1 connectivity) and without the need for additional NVMe adapters. The use of NVMe drives maximizes drive I/O performance, in terms of throughput and latency.

- Supports M.2 drives for convenient operating system boot functions or data storage. M.2 drives in a RAID-1 configuration can be internally mounted or can be mounted at the rear of the server as hot-swap drives.

- Supports up to 3x PCIe slots at the rear of the server. Also supports 2x OCP slots at the rear of the server.

- The server has two dedicated industry-standard OCP 3.0 slots supporting a variety of Ethernet network adapters. A simple-swap mechanism with a thumbscrew and pull-tab enables tool-less installation and removal of the adapter. The adapter supports shared BMC network sideband connectivity to enable out-of-band systems management.

- The server offers PCI Express 5.0 I/O expansion capabilities that doubles the theoretical maximum bandwidth of PCIe 4.0 (32GT/s in each direction for PCIe Gen 5, compared to 16 GT/s with PCIe Gen 4 and 8 GT/s with PCIe Gen 3). A PCIe 5.0 x16 slot provides 128 GB/s bandwidth,.

Availability and serviceability

The ThinkAgile FX630 V4 provide many features to simplify serviceability and increase system uptime:

- The server offers Single Device Data Correction (SDDC, also known as Chipkill), Adaptive Double-Device Data Correction (ADDDC, also known as Redundant Bit Steering or RBS), and memory mirroring for redundancy in the event of a non-correctable memory failure.

- The server offers hot-swap drives for greater system uptime.

- Available M.2 boot adapters support RAID-1 which can enable two NVMe M.2 drives to be configured as a redundant pair.

- The server has two hot-swap redundant power supplies and up to eight hot-swap redundant fans to provide availability for business-critical applications.

- The light path diagnostics feature uses LEDs to lead the technician to failed (or failing) components, which simplifies servicing, speeds up problem resolution, and helps improve system availability.

- Solid-state drives (SSDs) offer more reliability and performance than traditional mechanical HDDs for greater uptime.

- Proactive Platform Alerts (including PFA and SMART alerts): Processors, voltage regulators, memory, internal storage (SSDs, NVMe SSDs, M.2 storage), fans, power supplies, server ambient and subcomponent temperatures. Alerts can be surfaced through the XClarity Controller to managers such as Lenovo XClarity Administrator, and integrated into VMware vCenter. These proactive alerts let you take appropriate actions in advance of possible failure, thereby increasing server uptime and application availability.

- The built-in XClarity Controller 3 continuously monitors system parameters, triggers alerts, and performs recovery actions in case of failures to minimize downtime.

- Built-in diagnostics in UEFI, using Lenovo XClarity Provisioning Manager, speed up troubleshooting tasks to reduce service time.

- Lenovo XClarity Provisioning Manager supports diagnostics and can save service data to a USB key drive or remote CIFS share folder for troubleshooting and reduce service time.

- Auto restart in the event of a momentary loss of AC power (based on power policy setting in the XClarity Controller 3 service processor)

- Offers a diagnostics port on the front of the server to allow you to attach an external diagnostics handset for enhanced systems management capabilities.

- Support for the XClarity Administrator Mobile app running on a supported smartphone or tablet and connected to the server through the service-enabled USB port, enables additional local systems management functions.

- Three-year customer-replaceable unit and onsite limited warranty (varies by geography), 9 x 5 next business day. Optional service upgrades are available.

Manageability and security

Systems management features simplify local and remote management of the ThinkAgile FX630 V4:

- The server includes XClarity Controller 3 (XCC3) to monitor server availability. XCC3 Premier is included to provide remote control (keyboard video mouse) functions, support for the mounting of remote media files (ISO and IMG image files), boot capture and power capping. XCC3 Premier also offers additional features such as Neighbor Groups, System Guard, a CNSA-compliant security mode, a FIPS 140-3-compliant mode, and enhanced NIST 800-193 support.
- Dedicated Ethernet port at the rear of the server for remote management (BMC management). Optional support for a second dedicated BMC management port, installed in the OCP adapter bay.
- Lenovo XClarity Administrator offers comprehensive hardware management tools that help to increase uptime, reduce costs and improve productivity through advanced server management capabilities.
- UEFI-based Lenovo XClarity Provisioning Manager, accessible from F1 during boot, provides system inventory information, graphical UEFI Setup, platform update function, RAID Setup wizard, operating system installation function, and diagnostic functions.
- Support for Lenovo XClarity Energy Manager which captures real-time power and temperature data from the server and provides automated controls to lower energy costs.
- An integrated industry-standard Unified Extensible Firmware Interface (UEFI) enables improved setup, configuration, and updates, and simplifies error handling.
- Support for industry standard management protocols, IPMI 2.0, SNMP 3.0, Redfish REST API, serial console via IPMI
- An integrated hardware Trusted Platform Module (TPM) supporting TPM 2.0 enables advanced cryptographic functionality, such as digital signatures and remote attestation.
- Administrator and power-on passwords help protect from unauthorized access to the server.
- Supports Secure Boot to ensure only a digitally signed operating system can be used. Supported with SSDs, as well as M.2 drives.
- Industry-standard Advanced Encryption Standard (AES) NI support for faster, stronger encryption.
- Intel Execute Disable Bit functionality can prevent certain classes of malicious buffer overflow attacks when combined with a supported operating system.
- Intel Trusted Execution Technology provides enhanced security through hardware-based resistance to malicious software attacks, allowing an application to run in its own isolated space, protected from all other software running on a system.
- Additional physical security features are an available chassis intrusion switch and available lockable front bezel.

Energy efficiency

The ThinkAgile FX630 V4 offer the following energy-efficiency features to save energy, reduce operational costs, and increase energy availability:

- The server supports advanced Lenovo Neptune Core direct-water cooling (DWC) capabilities, where heat from key components is removed from the rack and the data center using an open loop and coolant distribution units, resulting in lower energy costs:
  - Processor Neptune Core Module uses liquid cooling to remove heat from the processors
- Energy-efficient system board components help lower operational costs.
- Carbon offset is available at click of button. You can project the carbon emissions per device for an average lifecycle (up to 5 years). That information is available **here**
- High-efficiency power supplies with 80 PLUS Platinum and Titanium certifications

- Solid-state drives (SSDs) consume as much as 80% less power than traditional spinning 2.5-inch HDDs.
- Support for Lenovo XClarity Energy Manager provides advanced data center power notification, analysis, and policy-based management to help achieve lower heat output and reduced cooling needs.
- The server uses hexagonal ventilation holes, which can be grouped more densely than round holes, providing more efficient airflow through the system and thus keeping your system cooler.

Components and connectors

The ThinkAgile FX630 V4 are based on the ThinkSystem SR630 V4 server.

The following figure shows the front of the FX630 V4 with 2.5-inch drives.
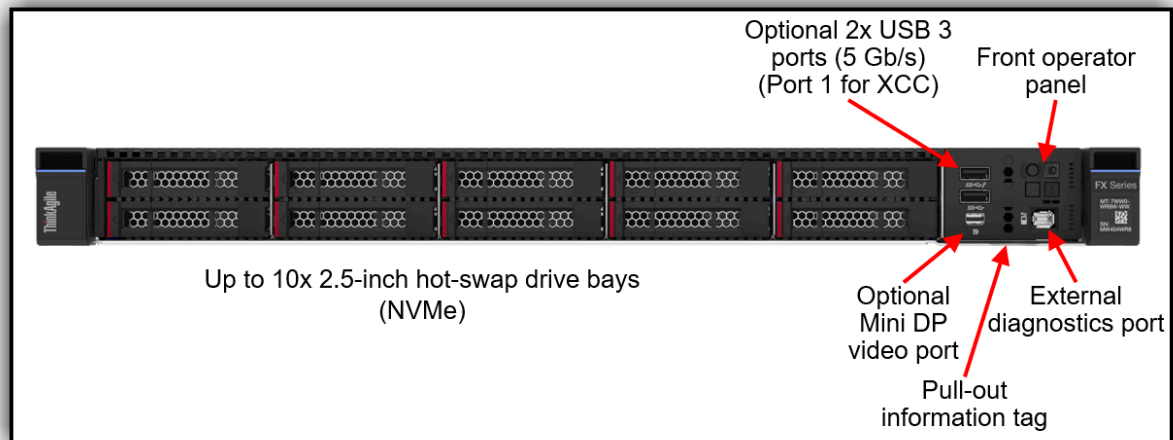

Figure 2. Front view of the ThinkAgile FX 630 V4 with 2.5-inch drives

The following figure shows the components visible from the rear of the server..
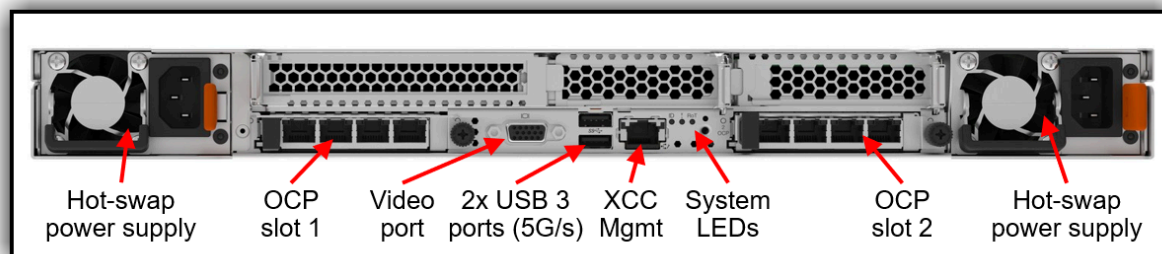

Figure 3. Rear view of the ThinkAgile FX 630 V4 systems

The following figure shows the locations of key components inside the systems.
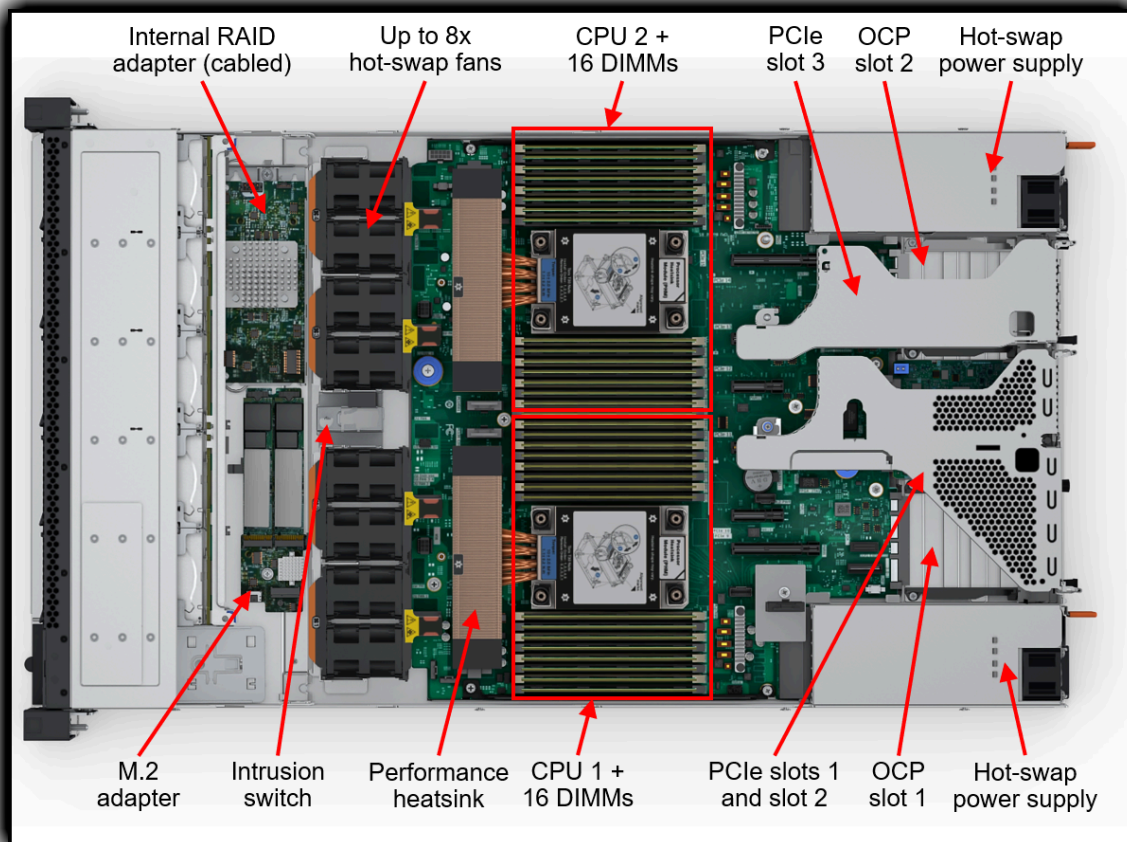

Figure 4. Internal view of the ThinkAgile FX630 V4 systems

Standard specifications

The ThinkAgile FX630 V4 are based on the ThinkSystem SR630 V4 server.

The following table provides an overview of the ThinkAgile VX630 V4 system.

Table 1. Comparison of features

	ThinkAgile FX630 V4
Target workloads	Enterprise Resource Planning, CRM, SMB, ROBO, VDI
Base MTM	7DPLCTO1WW
Form Factor	1U
Base platform	ThinkSystem SR630 V4
Max Cluster Size	64 Hosts
CPU	2x Intel® Xeon® 6 (Granite Rapids-SP)
Memory	DDR5 memory operating up to 8000 MHz 8 channels per CPU 32 DIMMs (16 per processor), 2 DIMMs per channel Supports RDIMMs, 3DS RDIMMs, and MRDIMMs Up to 8TB of system memory
Drive Bays	Front: 10x 2.5" NVMe hot-swap drives 2x Internal M.2 with optional RAID 1 PCIe 4.0 NVMe drive support 10x Onboard NVMe ports
Drive configurations	All Flash
Boot drives	2x M.2 NVMe
OCP networking	2x OCP 3.0 adapter 10Gb, 25Gb, 100Gb
PCIe networking	Up to 2x adapters 10GBASE-T, 10Gb, 25Gb, 100Gb
GPUs	Supports up to 3x single-wide GPUs
Hypervisor	ESXi 8.0u3 (Factory Installed) ESXi 9.0 (Factory Installed)

The following table lists the standard specifications.

Table 2. Standard specifications

Components	Specification
Machine types	7DPL - 3 or 5 year warranty
Form factor	1U rack.
Cluster Size	With Lenovo ThinkAgile FX Series & VMware Cloud Foundation (VCF), you need a minimum of 4 nodes to create a management domain cluster. With Lenovo ThinkAgile FX Series & VMware vSphere Foundation (VVF), you can create a vSAN cluster with a minimum 3 hosts* and a maximum of 64 hosts. Requires 8.0 u3 and later releases. With Lenovo ThinkAgile FX Series & Nutanix Foundation, you need a minimum of 3 nodes to create a management domain cluster. *Supports 2-node vSAN cluster deployment with a vSAN witness appliance deployed as a virtual machine or hardware appliance, typically in remote office/branch offices (ROBO) use cases and requires VMware vSphere Foundation (VVF) software license.
Processor	Two Intel Xeon 6700P-series or 6500P-series processors (formerly codenamed "Granite Rapids-SP"). Supports processors up to 86 cores and 172 threads, core speeds of up to 4.0 GHz, and TDP ratings of up to 350 W.
Chipset	None. Integrated into the processor
Memory	32 DIMM slots with two processors (16 DIMM slots per processor). Each processor has 8 memory channels, with 2 DIMMs per channel (DPC). Lenovo TruDDR5 RDIMMs are supported. DIMMs operate at up to 6400 MHz at 1 DPC and up to 5200 MHz at 2 DPC. Xeon 6500P and 6700P-series processors also support MRDIMMs up to 8000 MHz at 1 DPC.
Memory maximum	Up to 8TB by using 32x 256GB 3DS RDIMMs
Memory protection	ECC, SDDC (for x4-based memory DIMMs), ADDDC (for x4-based memory DIMMs), and memory mirroring.
Drive bays	10x 2.5-inch hot-swap drive bays: • Front bays support 10x 2.5-inch NVMe drive bays M.2 support for OS boot: • 2x rear hot-swap M.2 drive bays, or • Internal M.2 module supporting up to two M.2 drives
Storage controller	• Up to 10x Onboard NVMe ports
Network interfaces	Two dedicated OCP 3.0 SFF slots with a PCIe 5.0 host interface, either x8 or x16. Support a variety of 2-port and 4-port adapters with up to 100 GbE network connectivity. One port of each installed OCP adapter can optionally be shared with the XClarity Controller 3 (XCC3) management processor for Wake-on-LAN and NC-SI support.

Components	Specification
PCI Expansion slots	Up to 2x slots, all at the rear, plus 2 OCP slots. All slots are PCIe 5.0. Four choices for rear-access slots: • 2x PCIe 5.0 x16 low-profile slots • 2x PCIe 5.0 x16 full-height half-length slots • 1x PCIe 5.0 x16 full-height half-length slot + 1x PCIe 5.0 x16 low-profile slot (also supports 2x rear hot-swap M.2 drive bays) All configurations include at the rear of the server: • 2x OCP slots with PCIe 5.0 x16 or x8 connection
GPU support	Supports up to 3x single-wide GPUs
Ports	Front: External diagnostics port, optional 2x USB 3 (5 Gb/s) port, one supports XCC local management, optional Mini DisplayPort 1.1a video port. Rear: 2x USB 3 (5 Gb/s) ports, 1x VGA video port, 1x RJ-45 1GbE systems management port for XCC remote management. Optional DB-9 COM serial port (installs in a slot). Support for an optional second RJ-45 1GbE systems management port for XCC remote management (installs in OCP adapter slot). Support for an optional adapter to share an incoming remote management network connection across 4 servers (installs in an OCP slot). Internal: Optional 1x USB 3 (5 Gb/s) connector for operating system or license key purposes
Cooling	Up to 8x N+1 dual-rotor or single-rotor hot-swap 40 mm fans, implemented as 2-in-1 fan modules. Fans are N+1 rotor redundant. Fan select is configuration dependent. There is also one fan integrated in each power supply. For customers with water infrastructure in their data center, the server also supports open-loop water cooling for efficient heat removal.
Power supply	Two hot-swap redundant AC power supplies, 80 PLUS Platinum or 80 PLUS Titanium certification. 800W, 1300W, 2000W AC options. All AC power supplies support 230V power; some also support 115V input supply. In China only, all power supply options support 240 V DC. Support for HVDC and -48V DC power supply options.
Video	Embedded graphics with 16 MB memory with 2D hardware accelerator, integrated into the XClarity Controller 3 management controller. Two video ports (rear VGA and optional front Mini DisplayPort); both can be used simultaneously if desired. Maximum resolution is 1920x1200 32bpp at 60Hz.
Hot-swap parts	Drives, power supplies, and fans.
Systems management	Operator panel with status LEDs. Optional External Diagnostics Handset with LCD display. Clarity Controller 3 (XCC3) embedded management based on the ASPEED AST2600 baseboard management controller (BMC), XClarity Administrator centralized infrastructure delivery, XClarity Integrator plugins, and XClarity Energy Manager centralized server power management. Optional XCC3 Premier to enable remote control functions and other features.
Security features	Chassis intrusion switch, Power-on password, administrator's password, Root of Trust module supporting TPM 2.0 and Platform Firmware Resiliency (PFR). Optional lockable front security bezel.
Software	See Software Section:
Hypervisors	VMware ESXi. See Operating system support section for details.
Limited warranty	Three or Five-year (model dependent) customer-replaceable unit and onsite limited warranty with 9x5 next business day (NBD).
Service and support	Optional service upgrades are available through Lenovo Services: 4-hour or 2-hour response time, 6-hour fix time, 1-year or 2-year warranty extension, software support for Lenovo hardware and some third-party applications.
Dimensions	Width: 440 mm (17.3 in.), height: 43 mm (1.7 in.), depth: 788 mm (31 in.). Servers with E3.S front drives have a longer depth

Components	Specification
Weight	Maximum weight: 20.2 kg (44.5 lb)

Models

The Factory-integrated model is configured by using the Lenovo Data Center Solution Configurator (DCSC), http://dcsc.lenovo.com

To ensure that the controlled GPUs and accelerators are only sold in the supported markets, the following configure-to-order base machine-type models (CTO MTMs) are selectable in DCSC:

- **Standard Open models** are available in all markets worldwide. Controlled GPUs cannot be configured using these models. These are CTO1WW models.

Tip: It is highly recommended to engage a Lenovo representative early in a project that includes the ThinkAgile FX Hyperconverged Solution

The following table lists the base CTO models.

Table 3. CTO base models

Server model	Standard Open models
	These CTO models are available in all markets.
ThinkAgile FX630 V4	7DPLCTO1WW

Comparison with the ThinkSystem SR630 V4

The ThinkAgile FX630 V4 are based on the ThinkSystem SR630 V4 server, however there are key differences:

- No HBA support
- No vROC support
- RAID adapter supported for boot only
- Encryption not supported on SED drives
- Fibre Channel support for use cases like data migration
- No InfiniBand support
- ESA configurations only consist of a storage tier, no cache drives or disk groups required

For details about the ThinkSystem SR630 V4, see the ThinkSystem SR630 V4 product guide: https://lenovopress.lenovo.com/lp1971-thinksystem-sr630-v4-server

To verify what specific hardware components are supported with the ThinkAgile FX630 V4, see the DCSC configurator:
https://dcsc.lenovo.com

Processors

The ThinkAgile ThinkAgile FX630 V4 supports processors 6th Gen Intel Xeon Scalable Processor family.

Topics in this section:

- 6th Gen Intel Xeon Scalable processors

6th Gen Intel Xeon Scalable processors

The ThinkAgile FX630 V4 systems support the following processors. The system supports 2 processors installed.

For details about these options, including configuration rules, see the ThinkSystem SR630 V4 product guide: https://lenovopress.lenovo.com/lp1971-thinksystem-sr630-v4-server#processors

Table 4. Granite Rapids Processor choices

Part number	Feature	Description	Mainstream	Maximum supported FX630 V4
None	C5QQ	Intel Xeon 6505P 12C 150W 2.2GHz Processor	Mainstream	2
None	C5R6	Intel Xeon 6507P 8C 150W 3.5GHz Processor	Mainstream	2
None	C5RD	Intel Xeon 6515P 16C 150W 2.3GHz Processor	Mainstream	2
None	C5QV	Intel Xeon 6517P 16C 190W 3.2GHz Processor	Mainstream	2
None	C5QR	Intel Xeon 6520P 24C 210W 2.4GHz Processor	Mainstream	2
None	C659	Intel Xeon 6527P 24C 255W 3.0GHz Processor	Mainstream	2
None	C5QT	Intel Xeon 6530P 32C 225W 2.3GHz Processor	Mainstream	2
None	C5R7	Intel Xeon 6714P 8C 165W 4.0GHz Processor	Extended	2
None	C5R5	Intel Xeon 6724P 16C 210W 3.6GHz Processor	Mainstream	2
None	C5R4	Intel Xeon 6730P 32C 250W 2.5GHz Processor	Extended	2
None	CARB	Intel Xeon 6732P 32C 350W 3.8GHz Processor	Extended	2
None	C5R0	Intel Xeon 6736P 36C 205W 2.0GHz Processor	Extended	2
None	C5QX	Intel Xeon 6737P 32C 270W 2.9GHz Processor	Mainstream	2
None	C5R3	Intel Xeon 6740P 48C 270W 2.1GHz Processor	Mainstream	2
None	CARA	Intel Xeon 6745P 32C 300W 3.1GHz Processor	Extended	2
None	C5R8	Intel Xeon 6747P 48C 330W 2.7GHz Processor	Mainstream	2
None	C5R1	Intel Xeon 6760P 64C 330W 2.2GHz Processor	Extended	2
None	C5QY	Intel Xeon 6767P 64C 350W 2.4GHz Processor	Mainstream	2
None	C5QM	Intel Xeon 6787P 86C 350W 2.0GHz Processor	Mainstream	2

*Minimum of 16 cores is required for ESA configurations.

Memory

6th Generation Memory options

The ThinkAgile ThinkAgile FX630 V4 systems support the following 6th generation memory options. The ThinkAgile FX630 V4 uses Lenovo TruDDR5 memory operating at up to 8800 MHz. The server supports up to 32 DIMMs with 2 processors. The processors have 8 memory channels and support 2 DIMMs per channel (DPC). The server supports up to 8TB of memory using 32x 256GB RDIMMs and two processors.

DIMMs operate at the following speeds, up to the memory bus speed of the processor selected. See the Processor features section for specifics.

- RDIMMs and 3DS RDIMMs:
    - 1 DIMM per channel: Up to 6400 MHz
    - 2 DIMMs per channel using RDIMMs: Up to 5200 MHz
- MRDIMMs
    - 1 DIMM per channel: 8000 MHz

For details about these options, including configuration rules, see the ThinkSystem SR630 V4 product guide: https://lenovopress.lenovo.com/lp1971-thinksystem-sr630-v4-server#memory

Table 5. Granite Rapids Memory options

Part number	Feature	Description	Mainstream	Maximum supported FX630 V4
x4 RDIMMs				
4X77A90964	C0U9	ThinkSystem 32GB TruDDR5 6400MHz (1Rx4) RDIMM	Mainstream	32
4X77A90966	C0TQ	ThinkSystem 64GB TruDDR5 6400MHz (2Rx4) RDIMM	Mainstream	32
4X77A90997	BZ7D	ThinkSystem 96GB TruDDR5 6400MHz (2Rx4) RDIMM	Mainstream	32
4X77A90993	C0U1	ThinkSystem 128GB TruDDR5 6400MHz (2Rx4) RDIMM	Mainstream	32
x8 RDIMMs				
4X77A90963	C0U2	ThinkSystem 16GB TruDDR5 6400MHz (1Rx8) RDIMM	Mainstream	32
4X77A90965	BYTJ	ThinkSystem 32GB TruDDR5 6400MHz (2Rx8) RDIMM	Mainstream	32
3DS RDIMMs				
4X77A90994	C0U0	ThinkSystem 256GB TruDDR5 6400MHz (4Rx4) 3DS RDIMM	Mainstream	32
MRDIMMs (operate at 8000 MHz in the ThinkAgile FX630 V4) (Note: Not all processors support MRDIMMs - see Processor features)				
4X77A90998	C0TY	ThinkSystem 32GB TruDDR5 8800MHz (2Rx8) MRDIMM	Mainstream	32
4X77A90999	C0TX	ThinkSystem 64GB TruDDR5 8800MHz (2Rx4) MRDIMM	Mainstream	32

Internal storage

The ThinkAgile FX630 V4 supports 10x 2.5-inch drives.

The server supports front and rear drive bays, are as follows:

- Front accessible:
    - Up to 10x 2.5-inch NVMe

The server also supports two M.2 drives:

- Installed in an M.2 adapter internal to the server (non-hot-swap).

The choice of backplanes supported varies by system, as listed in the following table.

For details about these options, including configuration rules, see the ThinkSystem SR630 V4 product guide: https://lenovopress.lenovo.com/lp1971-thinksystem-sr630-v4-server#internal-storage

Table 6. Drive backplanes

Part number	Feature	Description	Maximum supported FX630 V4
Front 2.5-inch drive backplanes			
None	C21X	ThinkSystem 1U V4 10x2.5" NVMe Gen5 Backplane	1

For OS boot functions, the systems also support one M.2 hot-swap drives at the rear of the server, or one or two M.2 drives installed on an adapter internal to the server. The following table lists the supported controllers/enablement kits for M.2 boot drives.

For details about these options, including configuration rules, see the ThinkSystem SR630 V4 product guide: https://lenovopress.lenovo.com/lp1971-thinksystem-sr630-v4-server#internal-storage

Table 7. Boot Drive Enablement

Part number	Feature	Description	Maximum supported FX630 V4
Rear M.2 enablement kits			
4Y37A90064	C0JJ	ThinkSystem M.2 RAID B540p-2HS SATA/NVMe Adapter	1
Internal M.2 (non-hot-swap)			
4Y37A93746	C26V	ThinkSystem M.2 RAID B545i-2i SATA/NVMe Adapter	1
M.2 Drive Interposer			
None	CCWX	Hot-Swap M.2 Drive Interposer	2

Internal drive options

This section lists the supported drives:

- Boot drives
- Internal drives for FX630 V4 with VMware
- Internal drives for FX630 V4 with Nutanix

VMware Configuration Notes:

- Express Storage Architecture (ESA) supports a minimum of 1 drive and a maximum of 24 drives. Please reference the vSAN ESA ReadyNode Hardware Guidance for additional requirements

- VMware vSAN certification for Generic NVMe drives: The drives are listed in the Broadcom Compatibility Guide (BCG) under the drive vendor company name instead of Lenovo. To check a drive for vSAN certification, search the VCG using the Supplier part number. Part numbers can be found using the Product Guide for the corresponding Drive Family on Lenovo Press https://lenovopress.lenovo.com/servers/options/drives#sort=last_update.

Nutanix Configuration Note:

- For Flash with all NVMe config: Per node storage capacity over 307TB is only supported for NUS use cases.

Boot drives

The ThinkAgile FX630 V4 systems support the following drive for boot functions.

Table 8. Boot drives

Part number	Feature	Description	Maximum supported FX630 V4
M.2 PCIe 4.0 NVMe Drives			
4XB7A82636	BS2P	ThinkSystem M.2 7450 PRO 480GB Read Intensive NVMe PCIe 4.0 x4 NHS SSD	2
4XB7A13999	BKSR	ThinkSystem M.2 7450 PRO 960GB Read Intensive NVMe PCIe 4.0 x4 NHS SSD	2

Internal drives for FX630 V4 with VMware

The following table lists the drives support in the Internal Drives for ThinkAgile FX630 V4 - VMware.

Table 9. Drives supported in the Internal Drives for ThinkAgile FX630 V4 - VMware

Part number	Feature	Description	All Flash ESA	All Flash Cache	All Flash Capacity
2.5-inch hot-swap PCIe 4.0 NVMe SSDs					
4XB7A95056	C2BW	ThinkSystem 2.5" U.3 7500 MAX 3.2TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	10	No	No
4XB7A95055	C2BV	ThinkSystem 2.5" U.3 7500 MAX 1.6TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	10	No	No
4XB7A95057	C2BF	ThinkSystem 2.5" U.3 7500 MAX 6.4TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	10	No	No
4XB7A95050	C2BR	ThinkSystem 2.5" U.3 7500 PRO 1.92TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	10	No	No
4XB7A95051	C2BS	ThinkSystem 2.5" U.3 7500 PRO 3.84TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	10	No	No
4XB7A95052	C2BT	ThinkSystem 2.5" U.3 7500 PRO 7.68TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	10	No	No
4XB7A95053	C2BU	ThinkSystem 2.5" U.3 7500 PRO 15.36TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	10	No	No

Internal drives for FX630 V4 with Nutanix

The following table lists the drives support in the Internal Drives for ThinkAgile FX630 V4 - Nutanix.

Table 10. Drives supported in the Internal Drives for ThinkAgile FX630 V4 - Nutanix

Part number	Feature	Description	Maximum supported FX630 V4
2.5-inch hot-swap PCIe 4.0 NVMe SSDs			
4XB7A95056	C2BW	ThinkSystem 2.5" U.3 7500 MAX 3.2TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	10
4XB7A95055	C2BV	ThinkSystem 2.5" U.3 7500 MAX 1.6TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	10
4XB7A95057	C2BF	ThinkSystem 2.5" U.3 7500 MAX 6.4TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	10
4XB7A95050	C2BR	ThinkSystem 2.5" U.3 7500 PRO 1.92TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	10
4XB7A95051	C2BS	ThinkSystem 2.5" U.3 7500 PRO 3.84TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	10
4XB7A95052	C2BT	ThinkSystem 2.5" U.3 7500 PRO 7.68TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	10
4XB7A95053	C2BU	ThinkSystem 2.5" U.3 7500 PRO 15.36TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	10

Network adapters

The ThinkAgile FX630 V4 system supports the following networking options.

For details about these options, including configuration rules, see the ThinkSystem SR630 V4 product guide:
https://lenovopress.lenovo.com/lp1971-thinksystem-sr630-v4-server#i-o-expansion
https://lenovopress.lenovo.com/lp1971-thinksystem-sr630-v4-server#network-adapters

Table 11. OCP network adapters

Part number	Feature	Description	Maximum supported FX630 V4
10 Gb Ethernet - 10GBASE-T			
4XC7A08236	B5ST	ThinkSystem Broadcom 57416 10GBASE-T 2-port OCP Ethernet Adapter	2
4XC7A95696	C4GB	ThinkSystem Broadcom 57412 10GBase-T 4-Port OCP Ethernet Adapter	2
25 Gb Ethernet			
4XC7A08237	BN2T	ThinkSystem Broadcom 57414 10/25GbE SFP28 2-Port OCP Ethernet Adapter	2
4XC7A80567	BPPW	ThinkSystem Broadcom 57504 10/25GbE SFP28 4-Port OCP Ethernet Adapter	2
4XC7A62582	BE4T	ThinkSystem Mellanox ConnectX-6 Lx 10/25GbE SFP28 2-port OCP Ethernet Adapter	2

Table 12. PCIe network adapters

Part number	Feature	Description	Maximum supported FX630 V4
10 Gb Ethernet - 10GBASE-T			
7ZT7A00496	AUKP	ThinkSystem Broadcom 57416 10GBASE-T 2-Port PCIe Ethernet Adapter	2
25 Gb Ethernet			
4XC7A62580	BE4U	ThinkSystem Mellanox ConnectX-6 Lx 10/25GbE SFP28 2-port PCIe Ethernet Adapter	2
4XC7A08238	BK1H	ThinkSystem Broadcom 57414 10/25GbE SFP28 2-port PCIe Ethernet Adapter	2
4XC7A80566	BNWM	ThinkSystem Broadcom 57504 10/25GbE SFP28 4-port PCIe Ethernet Adapter	2
100 Gb Ethernet			
4XC7A08248	B8PP	ThinkSystem Mellanox ConnectX-6 Dx 100GbE QSFP56 2-port PCIe Ethernet Adapter	2

GPU adapters

The ThinkAgile ThinkAgile FX630 V4 systems support the following GPU options.

For details about these options, including configuration rules, see the ThinkSystem SR630 V4 product guide: https://lenovopress.lenovo.com/lp1971-thinksystem-sr630-v4-server#gpu-adapters

To ensure that the controlled GPUs and accelerators are only sold in the supported markets, the following configure-to-order base machine-type models (CTO MTMs) are selectable in DCSC:

- **Standard Open models** are available in all markets worldwide. Controlled GPUs cannot be configured using these models. These are CTO1WW models.

Note: It is highly recommended to engage a Lenovo representative early in a project that includes the ThinkAgile FX Systems

Table 13. GPU adapters

Part number	Feature	Description	Maximum supported FX630 V4
Single-wide GPUs			
4X67A84824	BS2C	ThinkSystem NVIDIA L4 24GB PCIe Gen4 Passive GPU	3

Operating system support

The ThinkAgile FX630 V4 supports the following operating systems:

- Vmware ESXi 8.0u3 (Factory Installed)
- Vmware ESXi 9.0 (Factory Installed)
- Nutanix AHV (Field Installed)

Configuration Note:

For further details, including any restrictions, see the OS Interoperability Guide: https://lenovopress.lenovo.com/osig#term=vx&support=all

Software

ThinkAgile FX630 V4 with VMware

When using VMware hypervisor, ThinkAgile FX Series offers support for VMware Cloud Foundation (VCF) and VMware vSphere Foundation (VVF) primary software stack options. Subscription Licenses can be purchased by contacting Broadcom Seller directly or a Broadcom authorized software partner. It is recommended that the VMware subscription license should match the length of the Lenovo hardware warranty, 3-year or 5-year durations. In addition to the primary stack options, advanced service options are available for features like vSAN additional capacity, Live Recovery, Firewall with Advanced Threat Prevention and Avi Load Balancer. Private AI Foundation is no longer a standalone add-on but part of the VCF license. The following VMware subscription software license are available for purchase by contacting a Broadcom Seller directly or a Broadcom authorized software partner.:

- Primary Software

1. VMware Cloud Foundation (VCF)
2. VMware vSphere Foundation (VVF)

For the current list of available add-ons for the VMware primary software, see the Broadcom feature comparison document. https://www.vmware.com/docs/vmware-cloud-foundation-9-0-feature-comparison-and-upgrade-paths.

Configuration notes:

- For more information on ThinkAgile FX Series Hardware needed for the respective VMware license quantities, please use the VMware SW license calculator at https://lets.lenovo.com/vlets-calculator/.

ThinkAgile FX630 V4 with Nutanix

When using Nutanix, ThinkAgile FX Series offers support for the Nutanix hypervisor listed in the following table. Hypervisors are installed on the 2x M.2 SSDs configured in a RAID-1 drive group.

Table 14. Hypervisors

Feature	Description
B15S	Nutanix SW Stack on Nutanix AHV

Configuration notes:

- The ThinkAgile FX Hyperconverged Solutions support firmware updates from Nutanix with Lifecycle Manager (UEFI, XCC3, drives, and network adapters)

Nutanix licenses: The ThinkAgile FX630 V4 software licenses are optional and are recommended to be purchased from Lenovo for a more seamless experience. Customers can use the existing Nutanix term-based software licenses and active support contracts, or they can purchase term-based software licenses and support contracts from Nutanix.

For the information on ThinkAgile FX Hyperconverged Solution firmware levels, hypervisor versions, and software versions that have been tested for interoperability, refer to the Lenovo ThinkAgile FX Series Best Recipes:
http://datacentersupport.lenovo.com/us/en/solutions/ht505413

Nutanix Portfolio 2.0 (PnP) Licensing Model

Nutanix provides an enterprise-ready unified cloud platform with our HCI solution as the foundation. The new, simplified product portfolio includes: Nutanix Cloud Platform (NCP), Nutanix Cloud Infrastructure (NCI) and Nutanix Cloud Manager (NCM), NCI-Data with 3 license tiers for each software edition. There are additional packages, Nutanix Unified Storage, Nutanix Database Service (NDB), and Nutanix Desktop Services (NDS), Virtual Desktop Infrastructure (VDI) & Nutanix Frame that are available.

The Nutanix software is available for all base CTO models.

The editions have the following characteristics:

Table 15. Software Editions

License Tier	Nutanix Cloud Platform (NCP)	Nutanix Cloud Infrastructure (NCI)	Nutanix Cloud Manager (NCM)	NCI-Data
Ultimate	• NCI Ultimate • NCM Ultimate	• Advanced DR: Sync, Near-Sync, • Runbook Security: Micro-segmentation, Encryption • Cloud Native: Kubernetes Services	• Application Automation • Security General	• No Mseg • No Karbon
Pro	• NCI Ultimate • NCM Pro	• Multisite Async DR • Overlay Networking	• Self Service Cost Governance	• No Flow Networking
Starter	• NCI Pro • NCM Pro	• AOS Storage + Compression + Deduplication	• AI Operations	• No AHV Support

Nutanix Cloud Platform (NCP)

Nutanix Cloud Platform is the complete software edition package that includes both Nutanix Cloud Infrastructure (NCI) and Nutanix Cloud Manager (NCM). It is available in several editions to meet your infrastructure needs with the right set of capabilities.

Nutanix Cloud Infrastructure (NCI)

Nutanix Cloud Infrastructure (NCI) is a complete software stack to unify your hybrid cloud infrastructure including compute, storage and network, hypervisors and containers, in public or enterprise clouds; all with built-in resilience, self-healing, disaster recovery capabilities, and security. It includes enterprise data services and consolidated storage, data protection and disaster recovery, native virtualization and container management, networking and security.

For details on software editions see https://www.nutanix.com/products/cloud-platform/software-options#nci

Nutanix Cloud Manager (NCM)

Nutanix Cloud Manager (NCM) offers our customers simplicity and ease of use to build and grow their cloud deployments faster and realize rapid ROI, by providing intelligent operations, self-service and orchestration, visibility and governance of spend, security and teams, all through a unified Multi-cloud management solution.

For details on software editions see https://www.nutanix.com/products/cloud-platform/software-options#ncm

Nutanix Unified Storage

Nutanix Unified Storage provides software-defined, scale-out storage solutions for enterprise NAS and object workloads for unstructured data, block storage for structured data, and backup storage. Nutanix Unified Storage replaces traditional independent storage services and brings NAS, object, and block

workloads into a consolidated unified storage platform with all its benefits, including a unified control plane.

Nutanix Data Lens delivers cloud-based data governance for unstructured data stored in the Nutanix Unified Storage platform, including data lifecycle management, data security, ransomware protection, and audit compliance.

Nutanix Unified Storage and Data Lens are purchased and licensed on a per TiB usable basis.

For details on software editions see https://www.nutanix.com/products/cloud-platform/software-options#nus

Nutanix Database Service

Nutanix Database Service (NDB) is a Hybrid Multicloud DBaaS that enables small, nimble teams of DBAs to easily manage large fleets of databases using a single console and API, while enabling developers to self-service their database requests. NDB is purchased and licensed on a per core basis and is available either as a standalone or as an add-on to NCI. In the standalone version, NDB includes NCI Ultimate functionality in addition to database-specific capabilities and is licensed on a per-core basis.

For details on software editions see https://www.nutanix.com/products/cloud-platform/software-options#database

Nutanix Virtual Desktop Infrastructure (VDI) & Nutanix Frame

The Nutanix VDI per user model offers hybrid cloud infrastructure capabilities appropriate for on-prem virtual desktop infrastructure (VDI) and Desktop as a Service (DaaS) use cases with pricing based on a Maximum Concurrent User basis (maximum number of provisioned end user VMs). VDI per user is an alternative to the core-based NCI licensing option and is designed to provide simple, transparent licensing for all VDI users, regardless of the underlying hardware, hypervisor, or cloud.

- Agnostic: Works with any EUC management platform including Citrix Virtual Apps & Desktops and VMware Horizon
- Term license: 1-year through 5-year options
  - Term license must run on a dedicated software licensed VDI cluster with no core-based licensing. Mixing of non-VDI workloads is not supported.
- Unified Storage: Built-in and available as a per TiB base add-on
- No additional license cost for DR site
- Portable across on-premises and public cloud, public cloud use requires Ultimate edition
- Available in Starter, Pro, and Ultimate editions
- Cloud Native and Database Service Add-ons not available with NCI VDI. Advanced Replication and Security Add-on features require NCI Ultimate edition

For details on software editions see https://www.nutanix.com/products/cloud-platform/software-options#vdi

License Options

ThinkAgile HX can be configured with one of the latest Nutanix software editions that are listed in the following table.

Table 16. Nutanix license options

Feature code	Description	Quantity Required
BVKU	Nutanix Cloud Platform Starter Edition	1 per node
BVKW	Nutanix Cloud Platform Pro Edition	1 per node
BVKY	Nutanix Cloud Platform Ultimate Edition	1 per node
BSPJ	Nutanix Cloud Infrastructure Starter Edition	1 per node
BSPG	Nutanix Cloud Infrastructure Pro Edition	1 per node
BSPL	Nutanix Cloud Infrastructure Ultimate Edition	1 per node

Feature code	Description	Quantity Required
BSQ0	Nutanix Cloud Manager Starter Edition	1 per node
BSPY	Nutanix Cloud Manager Pro Edition	1 per node
BSQ2	Nutanix Cloud Manager Ultimate Edition	1 per node
BSPQ	NCI-Data Starter Edition	1 per node
BSPN	NCI-Data Pro Edition	1 per node
BSPS	NCI-Data Ultimate Edition	1 per node
BSQH	Nutanix Database Service (NDB) Platform	1 per node
BSQ7	End User Computing (EUC) Starter	1 for every 200 concurrent users
BSQ5	End User Computing (EUC) Pro	1 for every 200 concurrent users
BSQ9	End User Computing (EUC) Ultimate	1 for every 200 concurrent users
BSQD	Nutanix Unified Storage (NUS) Starter	1 per Tib
BSQB	Nutanix Unified Storage (NUS) Pro	1 per Tib

Warranty and Support

The ThinkAgile FX630 V4 has a 3 or 5-year warranty based on the machine type:

- 7DPL - 3 or 5 year warranty

The ThinkAgile FX Series can be configured with a three- or five-year hardware warranty with 24x7 ThinkAgile Advantage Single Point of Support and various levels of coverage with a well-defined scope of services, including service hours, response time, term of service, and service agreement terms and conditions.
The Lenovo local support centers perform Premier determination and resolution for hardware-related issues and escalate to VMware by Broadcom or Nutanix, on behalf of the customer, for software-related problem determination. VMware or Nutanix depending on current hypervisor installed will contact the customer and will own the software-related problem resolution until closure.

Our global network of regional support centers offers consistent, local-language support enabling you to vary response times and level of service to match the criticality of your support needs:

- **Standard Next Business Day** – Best choice for non-essential systems requiring simple maintenance.
- **Premier Next Business Day** – Best choice for essential systems requiring technical expertise from senior-level Lenovo engineers.
- **Premier 24x7 4-Hour Response** – Best choice for systems where maximum uptime is critical.
- **Premier Enhanced Storage Support 24x7 4-Hour Response** – Best choice for storage systems where maximum uptime is critical.

For more information, consult the brochure Lenovo Operational Support Services for Data Centers Services.

Services

Lenovo Data Center Services empower you at every stage of your IT lifecycle. From expert advisory and strategic planning to seamless deployment and ongoing support, we ensure your infrastructure is built for success. Our comprehensive services accelerate time to value, minimize downtime, and free your IT staff to focus on driving innovation and business growth.

> **Note**: Some service options may not be available in all markets or regions. For more information, go to https://lenovolocator.com/. For information about Lenovo service upgrade offerings that are available in your region, contact your local Lenovo sales representative or business partner.

In this section:

- Lenovo Advisory Services
- Lenovo Plan & Design Services
- Lenovo Deployment, Migration, and Configuration Services
- Lenovo Support Services
- Lenovo Managed Services
- Lenovo Sustainability Services

Lenovo Advisory Services

Lenovo Advisory Services simplify the planning process, enabling customers to build future-proofed strategies in as little as six weeks. Consultants provide guidance on projects including virtual machine migration, storage, backup and recovery, and cost management to accelerate time to value, improve cost efficiency, and build a flexibly scalable foundation.

- **Assessment Services**

  An Assessment helps solve your IT challenges through an onsite, multi-day session with a Lenovo technology expert. We perform a tools-based assessment which provides a comprehensive and thorough review of a company's environment and technology systems. In addition to the technology based functional requirements, the consultant also discusses and records the non-functional business requirements, challenges, and constraints. Assessments help organizations like yours, no matter how large or small, get a better return on your IT investment and overcome challenges in the ever-changing technology landscape.

- **Design Services**

  Professional Services consultants perform infrastructure design and implementation planning to support your strategy. The high-level architectures provided by the assessment service are turned into low level designs and wiring diagrams, which are reviewed and approved prior to implementation. The implementation plan will demonstrate an outcome-based proposal to provide business capabilities through infrastructure with a risk-mitigated project plan.

Lenovo Plan & Design Services

Unlock faster time to market with our tailored, strategic design workshops to align solution approaches with your business goals and technical requirements. Leverage our deep solution expertise and end-to-end delivery partnership to meet your goals efficiently and effectively.

Lenovo Deployment, Migration, and Configuration Services

Optimize your IT operations by shifting labor-intensive functions to Lenovo's skilled technicians for seamless on-site or remote deployment, configuration, and migration. Enjoy peace of mind, faster time to value, and

comprehensive knowledge sharing with your IT staff, backed by our best-practice methodology.

- **Deployment Services for Storage and ThinkAgile**

  A comprehensive range of remote and onsite options tailored specifically for your business needs to ensure your storage and ThinkAgile hardware are fully operational from the start.

- **Hardware Installation Services**

  A full-range, comprehensive setup for your hardware, including unpacking, inspecting, and positioning components to ensure your equipment is operational and error-free for the most seamless and efficient installation experience, so you can quickly benefit from your investments.

- **DM/DG File Migration Services**

  Take the burden of file migration from your IT's shoulders. Our experts will align your requirements and business objectives to the migration plans while coordinating with your team to plan and safely execute the data migration to your storage platforms.

- **DM/DG/DE Health Check Services**

  Our experts perform proactive checks of your Firmware and system health to ensure your machines are operating at peak and optimal efficiency to maximize up-time, avoid system failures, ensure the security of IT solutions and simplify maintenance.

- **Factory Integrated Services**

  A suite of value-added offerings provided during the manufacturing phase of a server or storage system that reduces time to value. These services aim at improving your hardware deployment experience and enhance the quality of a standard configuration before it arrives at your facility.

Lenovo Support Services

In addition to response time options for hardware parts, repairs, and labor, Lenovo offers a wide array of additional support services to ensure your business is positioned for success and longevity. Our goal is to reduce your capital outlays, mitigate your IT risks, and accelerate your time to productivity.

- **Premier Support for Data Centers**

  Your direct line to the solution that promises the best, most comprehensive level of support to help you fully unlock the potential of your data center.

- **Premier Enhanced Storage Support (PESS)**

  Gain all the benefits of Premier Support for Data Centers, adding dedicated storage specialists and resources to elevate your storage support experience to the next level.

- **Committed Service Repair (CSR)**

  Our commitment to ensuring the fastest, most seamless resolution times for mission-critical systems that require immediate attention to ensure minimal downtime and risk for your business. This service is only available for machines under the Premier 4-Hour Response SLA.

- **Multivendor Support Services (MVS)**

  Your single point of accountability for resolution support across vast range of leading Server, Storage, and Networking OEMs, allowing you to manage all your supported infrastructure devices seamlessly from a single source.

- **Keep Your Drive (KYD)**

  Protect sensitive data and maintain compliance with corporate retention and disposal policies to ensure your data is always under your control, regardless of the number of drives that are installed in your Lenovo server.

- **Technical Account Manager (TAM)**

  Your single point of contact to expedite service requests, provide status updates, and furnish reports to track incidents over time, ensuring smooth operations and optimized performance as your business grows.

- **Enterprise Software Support (ESS)**

  Gain comprehensive, single-source, and global support for a wide range of server operating systems and Microsoft server applications.

For more information, consult the brochure Lenovo Operational Support Services for Data Centers.

Lenovo Managed Services

Achieve peak efficiency, high security, and minimal disruption with Lenovo's always-on Managed Services. Our real-time monitoring, 24x7 incident response, and problem resolution ensure your infrastructure operates seamlessly. With quarterly health checks for ongoing optimization and innovation, Lenovo's remote active monitoring boosts end-user experience and productivity by keeping your data center's hardware performing at its best.

Lenovo Managed Services provides continuous 24x7 remote monitoring (plus 24x7 call center availability) and proactive management of your data center using state-of-the-art tools, systems, and practices by a team of highly skilled and experienced Lenovo services professionals.

Quarterly reviews check error logs, verify firmware & OS device driver levels, and software as needed. We'll also maintain records of latest patches, critical updates, and firmware levels, to ensure you systems are providing business value through optimized performance.

Lenovo Sustainability Services

- **Asset Recovery Services**

  Lenovo Asset Recovery Services (ARS) provides a secure, seamless solution for managing end-of-life IT assets, ensuring data is safely sanitized while contributing to a more circular IT lifecycle. By maximizing the reuse or responsible recycling of devices, ARS helps businesses meet sustainability goals while recovering potential value from their retired equipment. For more information, see the Asset Recovery Services offering page.

- **CO2 Offset Services**

  Lenovo's CO2 Offset Services offer a simple and transparent way for businesses to take tangible action on their IT footprint. By integrating CO2 offsets directly into device purchases, customers can easily support verified climate projects and track their contributions, making meaningful progress toward their sustainability goals without added complexity.

- **Lenovo Certified Refurbished**

  Lenovo Certified Refurbished offers a cost-effective way to support IT circularity without compromising on quality and performance. Each device undergoes rigorous testing and certification, ensuring reliable performance and extending its lifecycle. With Lenovo's trusted certification, you gain peace of mind while making a more sustainable IT choice.

Software maintenance

The software maintenance from Broadcom or Nutanix should match the three-, or five-year duration of the selected Lenovo hardware warranty period that entitles customers to submit service requests to troubleshoot VMware or Nutanix software issues and receive code updates, including fixes, patches, and new software releases.

The Lenovo local support centers perform problem determination and resolution for hardware-related issues and escalate to Broadcom or Nutanix, on behalf of the customer for software-related problem determination. Lenovo will contact the customer and will own the software-related problem resolution until closure.

Lenovo TruScale

Lenovo TruScale XaaS is your set of flexible IT services that makes everything easier. Streamline IT procurement, simplify infrastructure and device management, and pay only for what you use – so your business is free to grow and go anywhere.

Lenovo TruScale is the unified solution that gives you simplified access to:

- The industry's broadest portfolio – from pocket to cloud – all delivered as a service
- A single-contract framework for full visibility and accountability
- The global scale to rapidly and securely build teams from anywhere
- Flexible fixed and metered pay-as-you-go models with minimal upfront cost
- The growth-driving combination of hardware, software, infrastructure, and solutions – all from one single provider with one point of accountability.

For information about Lenovo TruScale offerings that are available in your region, contact your local Lenovo sales representative or business partner.

Regulatory compliance

The ThinkSystem SR630 V4 conforms to the following standards:

Lenovo Financial Services

Why wait to obtain the technology you need now? No payments for 90 days and predictable, low monthly payments make it easy to budget for your Lenovo solution.

- **Flexible**

  Our in-depth knowledge of the products, services and various market segments allows us to offer greater flexibility in structures, documentation and end of lease options.

- **100% Solution Financing**

  Financing your entire solution including hardware, software, and services, ensures more predictability in your project planning with fixed, manageable payments and low monthly payments.

- **Device as a Service (DaaS)**

  Leverage latest technology to advance your business. Customized solutions aligned to your needs. Flexibility to add equipment to support growth. Protect your technology with Lenovo's Premier Support service.

- **24/7 Asset management**

  Manage your financed solutions with electronic access to your lease documents, payment histories, invoices and asset information.

- **Fair Market Value (FMV) and $1 Purchase Option Leases**

  Maximize your purchasing power with our lowest cost option. An FMV lease offers lower monthly payments than loans or lease-to-own financing. Think of an FMV lease as a rental. You have the flexibility at the end of the lease term to return the equipment, continue leasing it, or purchase it for the fair market value. In a $1 Out Purchase Option lease, you own the equipment. It is a good option when you are confident you will use the equipment for an extended period beyond the finance term. Both lease types have merits depending on your needs. We can help you determine which option will best meet your technological and budgetary goals.

Ask your Lenovo Financial Services representative about this promotion and how to submit a credit application. For the majority of credit applicants, we have enough information to deliver an instant decision and send a notification within minutes.

Seller training courses

The following sales training courses are offered for employees and partners (login required). Courses are listed in date order.

1. **Lenovo VTT Cloud Architecture Session: Future-Proof Your Data Center with Lenovo ThinkAgile FX**
   2026-01-29 | 44 minutes | Employees Only

   Join Ritu Jain, Lenovo Senior Product Manager on exploring how ThinkAgile FX solutions deliver unmatched flexibility and investment protection. In today's hybrid IT world, organizations need the ability to migrate workloads effortlessly between VMware and Nutanix environments—without costly hardware refreshes or operational disruptions.

   This webinar will cover:
   - Multi-Hypervisor Compatibility: How ThinkAgile FX platforms enable VMware Cloud Foundation and Nutanix AHV integration on a single hardware footprint.
   - Migration Strategies: Practical steps and tools for transitioning between hypervisors while maintaining performance and compliance.
   - Hybrid Cloud Enablement: Leveraging ThinkAgile FX for true hybrid deployments.
   - Pre-Sales Value Proposition: How to position ThinkAgile FX solutions to meet customer needs for scalability, flexibility, and cost optimization.
   - Roadmap: Find about the future of ThinkAgile FX.

   Key Takeaways:
   - Understand the ThinkAgile FX architecture that supports multi-hypervisor environments.
   - Learn how to deliver migration roadmaps for customers moving between VMware and Nutanix.
   - Gain insights into competitive differentiators and how to articulate them during customer engagements.

   Tags: Cloud, DataCenter Products, Software Defined Infrastruture (SDI), Technical Sales, ThinkAgile

   Published: 2026-01-29
   Length: 44 minutes

   > **Start the training:**
   > Employee link: Grow@Lenovo

   Course code: DVCLD230

2. **VTT Cloud Architecture: The Lenovo ThinkAgile Demo Toolkit - Maximizing Resources and Driving Customer Confidence**
2026-01-22 | 63 minutes | Employees and Partners

Seeing is believing when it comes to showcasing the value of ThinkAgile.
As a technical seller, solution architect or pre-sales engineer you know that a successful demonstration can be the linchpin of the sales cycle. ThinkAgile offers simplicity, scalability, and TCO reduction, but conveying these benefits effectively requires more than just a demo environment—it requires a strategy and a mastery of the resources at your disposal.

Did you know we have various pre-built demos and environments available for use with your customers?
This exclusive, Lenovo focused webinar is your master class on leveraging our existing HCI demo assets. We will dive into what's available, how to use it for maximum impact, and gather your crucial feedback to refine our future technical sales tools.

This session moves beyond product features to focus entirely on execution and resource utilization.
- Catalog of HCI Demo Resources: Get a comprehensive, up-to-date tour of all available assets, including:
- Pre-recorded Demo Videos for different workloads (VDI, Lifecycle Management).
- Clickable, Interactive Product Tours for early-stage discovery.
- Reference Architecture Demos illustrating hybrid cloud and multi-site deployments.

Your Voice, Our Future Demos (Feedback Session): This is your opportunity to directly influence the tools you use every day. We will dedicate time to:
- Reviewing the effectiveness of current demos in competitive scenarios.
- Gathering direct feedback on what critical use cases or feature gaps need to be covered in future demo development.
- Discussing any technical or logistical issues encountered while using the current environments.

Tags: Microsoft, Nutanix,Software Defined Infrastruture (SDI), ThinkAgile, VMware

Published: 2026-01-22
Length: 63 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: DVCLD229

3. **Data Protection**
2025-12-23 | 25 minutes | Employees and Partners

This course focuses on data protection and on Lenovo's protection portfolio - tools, platforms, and trusted ecosystem partners.

By the end of this course, you will be able to:

- Explain why data protection is a critical business priority by recognizing the real-world impact of data loss on operations, finances, and trust.
- Apply core data protection principles to assess customer risk and identify gaps using a structured protection strategy.
- Connect customer protection needs to Lenovo-native and partner solutions to position the right data protection approach.

Tags: Microsoft, Nutanix, VMware

Published: 2025-12-23
Length: 25 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: DSTOP203

4. **Data Modernization**
2025-12-22 | 20 minutes | Employees and Partners

This course focuses on storage modernization and how Lenovo's evolving portfolio helps you lead smarter conversations, deliver stronger business value, and help you confidently position Lenovo as your customers' trusted infrastructure partner.
This course is built to help you lead smarter customer conversations about storage modernization. The three main objectives are:
- Learn why modernization is urgent - and what happens if customers delay
- Find out how to help customers choose between Enterprise & HCI based on performance, scale, & operations
- Discover how to match Flash and Unified Storage to Real-World Customer Needs.

Tags: Sales, Storage

Published: 2025-12-22
Length: 20 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: DSTOP202

5. **Lenovo VTT Cloud Architecture: How VCF 9 delivers a Modern Sovereign Private Cloud with Intel Xeon 6 on ThinkAgile VX**
2025-08-22 | 84 minutes | Employees and Partners

Join Lenovo, Intel and VMware by Broadcom SMEs and learn how the next generation of VMware Cloud Foundation 9.0 is the ideal platform for customers to implement a modern private cloud. They will demonstrate simplified deployment, operations and cloud developer experience to run traditional, mission critical workloads as well as new AI workloads and containerized applications all in one unified, resilient and secure platform. VCF 9 is supported on the latest Intel Xeon 6 processors that are now available on ThinkAgile VX V4 systems

Tags: Architecture, Engineering & Construction, Artificial Intelligence (AI),Cloud, ThinkAgile, VMware

Published: 2025-08-22
Length: 84 minutes

Start the training:
Employee link: Grow@Lenovo
Partner link: Lenovo 360 Learning Center

Course code: DVCLD226

6. **VTT Cloud Architecture - Engineering Modern IT - ThinkAgile HX V4, HYCU Agentless Backup, NKP and AI-Ready Infrastructure**
2025-07-25 | 80 minutes | Employees and Partners

Join Adam Mandelbloom, Lenovo Technical Marketing Manager, Dan Ciruli, Nutanix, Senior Director of Product Management and Michael Taylor, HYCU for an exclusive technical sales discussion to help your customers who are looking to stay ahead in the evolving world of hybrid cloud, AI, and containerized workloads. This session will explore how ThinkAgile HX V4 and Lenovo's ecosystem of partners featuring Nutanix and HYCU is transforming enterprise IT with cutting-edge solutions. Topics we will be covering are:

• Intro to ThinkAgile HX650 V4, ThinkAgile HX630 V4 and soon to be released ThinkAgile HX650a V4.
• HYCU Introduction - Discover how HYCU delivers agentless, application-aware backup and recovery tailored for ThinkAgile HX environments. Learn how to position HYCU as a seamless, cost-effective solution for data protection across hybrid and multi-cloud deployments.
• Understand how HYCU's native integration with Nutanix simplifies data protection
• Learn how to position agentless, application-aware backup as a differentiator
• Explore key talking points for hybrid and multi-cloud backup scenarios
• Nutanix AI - Explore the latest innovations in ThinkAgile HX Nutanix GPT-in-a-Box and AI-ready infrastructure. Understand how to help customers deploy AI workloads with confidence, leveraging Nutanix's secure, scalable, and simplified platform.
• Discover how ThinkAgile HX enables secure, scalable AI deployments with GPT-in-a-Box
• Learn to identify AI-ready customers and align infrastructure to AI/ML use cases
• Get tips on highlighting ROI
• Nutanix Kubernetes Platform (NKP) -Get insights into NKP, Nutanix's enterprise-grade Kubernetes management solution. Learn how to guide customers through their cloud-native journey, from container orchestration to DevOps integration.
• Understand how NKP supports enterprise-grade Kubernetes at scale
• Learn how to align NKP with DevOps, modernization, and cloud-native initiatives
• Explore competitive positioning and integration opportunities

Tags: Cloud, Artificial Intelligence, Nutanix, Backup and Recovery, Technical Sales

Published: 2025-07-25
Length: 80 minutes

Start the training:
Employee link: Grow@Lenovo
Partner link: Lenovo 360 Learning Center

Course code: DVCLD225

7. **Unlock the full potential of AI in your organization with a private and secure solution that leverages your own data**
2025-06-26 | 61 minutes | Employees and Partners

Join Scott Stricker, World-Wide Leader for Advanced Services within the VMware Cloud Foundation Division and Alex Fanous Advanced Services Architects VMware Cloud Foundation Org at VMware by Broadcom as they lead us in this session. We'll explore the critical need for a private AI solution that enables enterprises to serve AI models with confidence, while maintaining control over their sensitive data and adhering to operational governance & standards. We'll discuss the benefits of a Lenovo-VMware joint solution, including robust lifecycle management, agility, and the ability to deliver AI outcomes that drive business success. We'll also delve into real-world use cases and identify the new personas within our customers' business that will be the consumers of these AI services, and how they can benefit from a private AI foundation. Join us for this technical deep dive into the solution, including a live demonstration, to see how you can harness the power of AI while protecting your organization's most valuable assets and wrangle the cost of today's most expensive workload.

Tags: Artificial Intelligence (AI), Cloud, Software Defined Infrastruture (SDI), ThinkAgile

Published: 2025-06-26
Length: 61 minutes

Start the training:
Employee link: Grow@Lenovo
Partner link: Lenovo 360 Learning Center

Course code: DVCLD224

8. **ThinkAgile VX in 3 minutes**
2025-06-18 | 5 minutes | Employees and Partners

Learn about ThinkAgile VX in under 3 minutes. The business challenges it solves and how it can increase the size of your sales opportunities.

By the end of this training, you should be able to:

1) Learn how to sell Lenovo ThinkAgile VX
2) Describe what differentiates ThinkAgile VX from other VMware offerings

Tags: Sales, Sales Tools, Technical Sales, ThinkAgile

Published: 2025-06-18
Length: 5 minutes

Start the training:
Employee link: Grow@Lenovo
Partner link: Lenovo 360 Learning Center

Course code: DVXS101

9. **Lenovo Data Center Product Portfolio**
2025-06-11 | 20 minutes | Employees and Partners

This course introduces the Lenovo data center portfolio, and covers servers, storage, storage networking, and software-defined infrastructure products. After completing this course about Lenovo data center products, you will be able to identify product types within each data center family, describe Lenovo innovations that this product family or category uses, and recognize when a specific product should be selected.

Course objectives:
1.Identify product types within each data center family
2.Describe the features of the product family or category
3.Recognize when a specific product should be selected

Tags: Advanced DataCenter, DataCenter Products, Server, ThinkAgile, ThinkEdge, ThinkSystem

Published: 2025-06-11
Length: 20 minutes

Start the training:
Employee link: Grow@Lenovo
Partner link: Lenovo 360 Learning Center

Course code: SXXW1110r8

10. **VTT: Nutanix Integration in XClarity One - SAM - May 2025**
2025-06-10 | 56 minutes | Employees Only

Please join this session as our speaker Sorin Tacu, will be sharing us a preview of SAM (Solutions Advanced Manager) - a powerful new tool developed by the ThinkAgile HX team in collaboration with XClarity One. Designed to seamlessly integrate the Nutanix Solution into XClarity One, SAM is set to streamline solution management and drive greater value for our customers. Get a first look at its future capabilities and learn more about it.

Tags: Nutanix, XClarity

Published: 2025-06-10
Length: 56 minutes

Start the training:
Employee link: Grow@Lenovo

Course code: DVSYS217

11. **Partner Technical Webinar - ThinkAgile V4**
2025-06-09 | 60 minutes | Employees and Partners

In this 60-minute replay, Pawan Misra, Lenovo SDI Product Manager and Adam Mandelbloom, Lenovo SDI Technical Marketing Manager, reviewed the newly announced ThinkAgile V4 systems for HX, VX and MX.

Tags: Microsoft, Nutanix, VMware

Published: 2025-06-09
Length: 60 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: JUN0625

12. **Family Portfolio: ThinkAgile Systems**
2025-04-30 | 45 minutes | Employees and Partners

This course covers the foundational components of the ThinkAgile family, including server configurations, key system differences, and the unique features of the HX, MX, and VX product families.
By the end of this course, you should be able to:
•List the ThinkSystem and ThinkEdge servers that the ThinkAgile family is based on
•Explain the difference between Certified Nodes and Integrated Systems
•List two features each of the HX, MX, and VX families

Tags: ThinkAgile, ThinkSystem

Published: 2025-04-30
Length: 45 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: SXSW2150r2

13. **Partner Technical Webinar - Storage Announcements**
2025-04-29 | 60 minutes | Employees and Partners

In this 60-minute replay, the April 23 Storage Announcement was presented. Adam Mandelbloom, Lenovo Technical Marketing Manager, presented the ThinkAgile announcements. Next, Roger Yarosh, Senior Storage Product Manager, presented the DG and DM announcements.

Tags: Data Management, ThinkAgile

Published: 2025-04-29
Length: 60 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: 042525

14. **Think AI Weekly: Simplifying AI Deployments with ThinkAgile**
2025-04-11 | 54 minutes | Employees Only

Please view this session to hear Adam Mandelbloom, Technical Marketing Manager for ISG explain these topics:

-Overall value proposition of ThinkAgile in AI solutions
-Use cases for ThinkAgile HX
-Use cases for ThinkAgile VX and MX

Tags: Artificial Intelligence (AI), ThinkAgile

Published: 2025-04-11
Length: 54 minutes

> **Start the training:**
> Employee link: Grow@Lenovo

Course code: DTAIW137

15. **Lenovo TruScale for Hosted Desktops with Nutanix**
2025-02-04 | 15 minutes | Employees and Partners

By exemplifying the case of a customer who wants to move to a remote desktop public cloud solution, this 15-minute course offers an overview of the Lenovo TruScale for Hosted Desktops with Nutanix solution, including benefits, architecture, and value proposition.

After completing this course, you will be able to describe the Lenovo TruScale for Hosted Desktops with Nutanix solution, articulate the value proposition of this Hosted Desktops solution, and identify opportunities for this Lenovo-Nutanix solution.

Tags: ThinkAgile, TruScale

Published: 2025-02-04
Length: 15 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: DSOLO109

16. **ThinkAgile VX - How to sell**
2024-12-18 | 15 minutes | Employees and Partners

This module will introduce you to the ThinkAgile VX product line. It also introduces the latest updates to the VMware software packages available with the ThinkAgile VX product line.

Course Objectives:
1. Find out more about the competitive advantage of ThinkAgile VX.
2. Learn about the hardware and software solutions in the ThinkAgile VX line.
3. Understand the business needs and how you can sell more.

Tags: ThinkAgile, VMware

Published: 2024-12-18
Length: 15 minutes

Start the training:
Employee link: Grow@Lenovo
Partner link: Lenovo 360 Learning Center

Course code: DVXS100

17. **Selling On Prem Value - Private Cloud and Private AI**
2024-12-13 | 40 minutes | Employees Only

This course provides Lenovo Sellers with a series of five videos that are designed to help you better articulate our joint value in the Private Cloud and Private AI solution opportunity. After completing this course, Lenovo Sellers should be prepared to elevate customer discussions by transitioning from product features to explaining value-driven benefits, enabling a deeper understanding of the strategic impact for their business.

Tags: Artificial Intelligence (AI), Industry solutions, Technology solutions, ThinkAgile, VMware

Published: 2024-12-13
Length: 40 minutes

Start the training:
Employee link: Grow@Lenovo

Course code: DVMB101

18. **Partner Technical Webinar - Data Center 101 - Why HCI? Why 3-tier?**
2024-11-14 | 60 minutes | Employees and Partners

October 11, 2024 – In this 60-minute webinar Alex Docherty, Channel Technical Strategist, discussed When to HCI vs 3 Tier.

Tags: ThinkAgile, ThinkSystem

Published: 2024-11-14
Length: 60 minutes

Start the training:
Employee link: Grow@Lenovo
Partner link: Lenovo 360 Learning Center

Course code: 101124

19. **ThinkAgile Solutions for AI - Security and Compliance Considerations**
2024-10-01 | 15 minutes | Employees and Partners

This course, tailored specifically for Lenovo and its partner technical sellers, is designed to equip participants with essential knowledge and skills to effectively assess security measures and address compliance considerations for ThinkAgile Solutions for AI.

Upon completion of this training, you will be able to:
• Describee security features of ThinkAgile for AI data protection.
• Explain how to mitigate risk and address compliance considerations in AI deployments.

Last Updated: September 2024

Tags: Artificial Intelligence (AI), High-Performance Computing (HPC), ThinkAgile

Published: 2024-10-01
Length: 15 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: DCLDAI203

20. **Integration of ThinkAgile and AI**
2024-09-11 | 25 minutes | Employees and Partners

Designed specifically for Lenovo and its partner technical sellers, this course aims to equip you with the knowledge and skills to effectively communicate the integration of ThinkAgile Solutions and AI.

Upon completion of this training, you will be able to:
•Highlight the advantages of using ThinkAgile for AI workloads
•Explore how ThinkAgile platforms are specifically optimized for AI

Last Updated: September 2024

Tags: Artificial Intelligence (AI), ThinkAgile

Published: 2024-09-11
Length: 25 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: DCLDAI204

21. **Key Features of Lenovo ThinkAgile Solutions for AI**
2024-09-10 | 15 minutes | Employees and Partners

Designed specifically for Lenovo and its partner technical sellers, this course aims to equip you with the knowledge and skills to effectively communicate the key features of ThinkAgile Solutions for AI. By completing this course, you'll be better prepared to understand customer needs and present the most suitable AI solutions, ensuring successful engagements and driving value for your clients.

In this course, you will learn how to:
• Present compute capabilities for AI processing
• Articulate optimized storage solutions with ThinkAgile for high-speed AI performance
• Identify essential networking considerations for ThinkAgile AI workloads
• Present ThinkAgile AI Ready solutions

Last Updated: September 2024

Tags: Artificial Intelligence (AI), ThinkAgile

Published: 2024-09-10
Length: 15 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: DCLDAI201

22. **ThinkAgile Solutions for AI - Sales Strategies and Messaging**
2024-09-06 | 15 minutes | Employees and Partners

This course is designed exclusively for Lenovo and its partner technical sales teams, with the goal of empowering you with the knowledge and strategies necessary to effectively engage customers in conversations about ThinkAgile Solutions for AI.

In this course, you'll learn how to:
• Identify customer pain points.
• Recommend ThinkAgile Solutions for AI tailored to those needs. And lastly,
• Communicate the benefits of ThinkAgile for AI to key stakeholders.

Last Updated: September 2024

Tags: Artificial Intelligence (AI), ThinkAgile

Published: 2024-09-06
Length: 15 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: DCLDAI202

23. **Position Lenovo ThinkAgile Solutions for AI**
2024-08-19 | 10 minutes | Employees and Partners

Designed specifically for Lenovo and partner technical sellers, this course aims to equip you with the knowledge and skills necessary to effectively evaluate and position ThinkAgile Solutions for AI to your customers. By completing this course, you will be better prepared to understand customer needs and present the most suitable AI solutions, ensuring successful engagements and driving value for your clients.

In this course, you will learn how to position ThinkAgile Solutions for AI to your customers by:
•Evaluating the key challenges in the enterprise landscape
•Advocating the value proposition of ThinkAgile Hyper-Converged Infrastructure
•Exploring use cases of ThinkAgile in AI environments
•Implementing ThinkAgile-based AI deployments

Tags: Artificial Intelligence (AI), ThinkAgile

Published: 2024-08-19
Length: 10 minutes

Start the training:
Employee link: Grow@Lenovo
Partner link: Lenovo 360 Learning Center

Course code: DCLDAI200

24. **Lenovo VTT Cloud Architecture - Unlock Gen AI with VMware Private AI Foundation with NVIDIA**
2024-07-16 | 60 minutes | Employees and Partners

In today's rapidly evolving digital landscape, businesses are hungry for the transformative power of Artificial Intelligence (AI). They see AI as the key to streamlining operations and unlocking exciting new opportunities. However, widespread adoption has been hampered by concerns surrounding privacy, the complexity of implementation, and the hefty costs associated with deploying and managing AI solutions at an enterprise level.
Join Chris Gully and Baker Hull, Solutions Architects from VMware by Broadcom, as they discuss how Lenovo, NVIDIA, and VMware By Broadcom are partnering to deliver a private, secure, scalable, and flexible AI infrastructure solution that helps enterprise customers build and deploy AI workloads within their own private cloud infrastructure, ensure the control of sensitive data and compliance with regulatory requirements, ultimately driving faster time to value and achieving their AI objectives.

Tags: Artificial Intelligence (AI), Cloud, Nvidia, ThinkAgile, VMware

Published: 2024-07-16
Length: 60 minutes

Start the training:
Employee link: Grow@Lenovo
Partner link: Lenovo 360 Learning Center

Course code: DVCLD214

25. **SAP Webinar for Lenovo Sellers: Lenovo Portfolio Update for SAP Landscapes**
2024-06-04 | 60 minutes | Employees Only

Join Mark Kelly, Advisory IT Architect with the Lenovo Global SAP Center of Competence as he discusses:
•Challenges in the SAP environment
•Lenovo On-premise Solutions for SAP
•Lenovo support resources for SAP solutions

Tags: SAP, ThinkAgile, ThinkEdge, ThinkSystem

Published: 2024-06-04
Length: 60 minutes

> **Start the training:**
> Employee link: Grow@Lenovo

Course code: DSAPF101

26. **Start the Conversation - Lenovo Cloud Strategy**
2024-05-20 | 25 minutes | Employees and Partners

The purpose of this course is to help sellers use the Lenovo cloud strategy as a foundation to start the customer cloud conversation.

Course Objectives:
•Understand why customers choose the cloud
•Describe the Lenovo Cloud Strategy
•Be able to start the customer cloud conversation

Tags: Cloud, Technology solutions

Published: 2024-05-20
Length: 25 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: DCLDS103r3

27. **VTT Data Management How to sell storage - April 2024**
2024-04-10 | 60 minutes | Employees and Partners

In this course, you will know:

- Why do we sell storage?
- What are the basics you need to get an opportunity rolling?
- Why Lenovo for Storage?
- What is happening in the market today?
- How to determine traction?

Tags: Data Management, Storage

Published: 2024-04-10
Length: 60 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: DVDAT209

28. **Technical Overview: ThinkAgile HCI and Cloud Platforms**
2024-03-07 | 35 minutes | Employees and Partners

This course is designed to give Lenovo sales and partner representatives a technical overview of Lenovo's ThinkAgile hyperconverged infrastructure and cloud platforms. Turnkey cloud platforms along with their architectural makeup, and container and data protection solutions are also covered.

Learning Objectives:

•Describe Lenovo's ThinkAgile hyperconverged infrastructure and cloud platforms
•Explain do-it-yourself and turnkey cloud platforms along with their architectural makeup
•Describe container and data protection solutions

Tags: Architecture, Engineering & Construction, Cloud, Technical Sales, ThinkAgile

Published: 2024-03-07
Length: 35 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: DCLDT2001r3

29. **Lenovo HX Business Conversations**
2024-03-06 | 20 minutes | Employees and Partners

This course covers business conversations for Lenovo HX Hyperconverged solutions.
Course objectives:
•Identify a potential Lenovo HX opportunity
•Conduct effective discovery to reveal the customer's data center needs
•Probe the customer
•Ensure the customer knows you understand their issue(s)

Tags: DataCenter Products, Nutanix, Storage

Published: 2024-03-06
Length: 20 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: DCGHXB001

30. **Lenovo Solutions for the Cloud**
2024-01-03 | 30 minutes | Employees and Partners

Understanding your customer's needs around cloud solutions is imperative. This course aims to increase Lenovo and Partner Seller's ability to identify various Lenovo Cloud offerings and services to position related Lenovo Cloud Solutions.

Tags: Cloud, Technology solutions, ThinkAgile, ThinkEdge, ThinkSystem

Published: 2024-01-03
Length: 30 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: DCLDO112r2

31. **VTT Cloud Architecture: Google Cloud Platform with Anthos on ThinkAgile VX - October 2023**
2023-10-11 | 54 minutes | Employees and Partners

Join Chandrakandh Mouleeswaran, Lenovo Senior Software Engineer and Cristian Ghetau, Lenovo Software Engineer for a discussion on Google Cloud Platform (GCP) with Anthos solution based on the Lenovo ThinkAgile VX VMware vSAN certified platform. They will cover a technical overview of Google Kubernetes Engine (GKE) On-prem, which is a containerized workload orchestration software. We will cover the functional aspects of Anthos core components including the Kubernetes, Istio service mesh, Anthos config management, Hybrid and multi-cloud management, and Google cloud marketplace. We will also provide an architecture overview and deployment of Anthos on top of Lenovo ThinkAgile VX hyperconverged infrastructure (HCI) platform. Cristian and Chandrakandh will cover customer use cases for Anthos, including Continuous Integration/Continuous Delivery (CI/CD), Micro-services and Service Mesh, Hybrid Cloud and Multi-cloud management, and Anthos Config Management.

Tags: Cloud, Software Defined Infrastruture (SDI), Technology solutions, ThinkAgile, VMware

Published: 2023-10-11
Length: 54 minutes

Start the training:
Employee link: Grow@Lenovo
Partner link: Lenovo 360 Learning Center

Course code: DVCLD205

32. **VEEAM Solutions Sales Training**
2023-09-27 | 20 minutes | Employees and Partners

In this course you will learn about Hyper-availability for the Always-On Enterprise.

By the end of this training, you should be able to:

Identify and explain the core products and solutions offered by Veeam.
Explain the key benefits and value propositions of integrating Veeam solutions with Lenovo products.

Tags: Sales

Published: 2023-09-27
Length: 20 minutes

Start the training:
Employee link: Grow@Lenovo
Partner link: Lenovo 360 Learning Center

Course code: DSTOO100

33. **VTT Cloud Architecture - Application Migration September 2023**
2023-09-12 | 35 minutes | Employees Only

This VTT Cloud Architecture training aims to equip participants with the knowledge necessary to help your customers successfully migrate applications to a cloud infrastructure. With the increasing adoption of cloud computing, organizations are looking to harness the benefits of private and hybrid clouds, such as enhanced security, control, and customization. However, migrating applications to cloud requires careful planning, architectural considerations, and a deep understanding of the migration process.
In this training, we will delve into cloud infrastructure and learn about the key components involved in application migration. We will explore various migration strategies, including lift-and-shift, re-platforming, and re-architecting, and understand the factors that influence the selection of an appropriate migration approach. We will also cover best practices for evaluating application readiness, assessing dependencies, identifying potential challenges and risks, and solution design considerations.
We will discuss using migration tools, technologies specific to cloud environments and automation techniques for streamlining the migration process, ensuring minimal disruption to business operations.

Tags: Cloud, Software Defined Infrastruture (SDI), Technical Sales, VMware

Published: 2023-09-12
Length: 35 minutes

Start the training:
Employee link: Grow@Lenovo

Course code: DVCLD204

34. **A Seller's Guide to Nutanix OEM 2.0**
2023-08-24 | 90 minutes | Employees Only

In this Sales Team webinar, Mike Tilt, Ritu Jain and Brandon Saxton will cover the new Nutanix 2.0 pricing and packaging options to guide sellers on what the different types of offers, sales process and how to sell Nutanix 2.0. You will get an overview of OEM 2.0, Sales Process, PNP Pricing and Zone Information, and additional resources on Upgrade & Renewal SKUs and process.

Course Objectives
•Defining Nutanix 2.0 Pricing and Packaging
•Describing OEM 2.0 Sales Process
•Identifying resources and support

Tags: Nutanix, OEM, Sales

Published: 2023-08-24
Length: 90 minutes

Start the training:
Employee link: Grow@Lenovo

Course code: DSXNS101

35. **Empowering Technical Sellers: Accelerating Lenovo and Nutanix Cloud Native-Container Application Solutions**
2023-08-18 | 60 minutes | Employees and Partners

This training abstract outlines a comprehensive program specifically designed to equip technical sellers with the knowledge and expertise needed to effectively promote and sell Lenovo and Nutanix cloud native/container application solutions. By focusing on the integration of Lenovo and Nutanix technologies with modern application development practices, this training enables tech sellers to engage with customers, understand their requirements, and articulate the unique value proposition of Lenovo and Nutanix offerings in the cloud native and containerization landscape.
The training encompasses the following key areas:
1. Cloud Native and Containerization Fundamentals:
2. Lenovo and Nutanix Solutions Overview:
3. Product Portfolio Deep Dive:
4. Addressing Customer Needs:
5. Solution Positioning and Sales Techniques:
6. Competitor Analysis:
7. Technical Demonstration and Proof-of-Concept:
Throughout the training, tech sellers will gain the expertise necessary to engage with customers, understand their unique requirements, and effectively position Lenovo and Nutanix solutions as the go-to choice for cloud native and containerized application needs. By learning the intricacies of Lenovo and Nutanix offerings, technical sellers will be equipped to drive successful sales engagements, strengthen customer relationships, and contribute to the overall growth and success of the organization.

Tags: Business solutions, Cloud, Nutanix, ThinkAgile

Published: 2023-08-18
Length: 60 minutes

Start the training:
Employee link: Grow@Lenovo
Partner link: Lenovo 360 Learning Center

Course code: DHXC201

36. **Empowering Technical Sellers: Excelling In Transactional Workloads**
2023-08-18 | 60 minutes | Employees and Partners

This training abstract outlines a comprehensive program designed to equip technical sellers with the knowledge and expertise required to effectively promote and sell Lenovo and Nutanix solutions for transactional workloads. By focusing on the unique capabilities and advantages of Lenovo and Nutanix infrastructure in handling high-performance transactional applications, this training program empowers technical sellers to engage with customers, understand their specific workload requirements, and articulate the value proposition of Lenovo and Nutanix offerings in this domain.
The training program encompasses the following key areas:
1. Transactional Workloads Overview:
2. Lenovo and Nutanix Solutions for Transactional Workloads:
3. Product Portfolio Deep Dive:
4. Addressing Customer Requirements:
5. Solution Positioning and Sales Techniques:
6. Competitor Analysis:
Through this training, technical sellers will acquire the expertise necessary to engage with customers, understand their transactional workload requirements, and effectively position Lenovo and Nutanix solutions as the ideal choice for high-performance, mission-critical applications. By understanding the intricacies of Lenovo and Nutanix offerings in the transactional workload space, technical sellers will be empowered to drive successful sales engagements, build strong customer relationships, and contribute to the growth and success of their organization.

Tags: Cloud, Nutanix, ThinkAgile

Published: 2023-08-18
Length: 60 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: DHXD201

37. **VTT Cloud Architecture - DevOps Cloud Story August 2023**
2023-08-17 | 60 minutes | Employees Only

Understanding how architecture is deployed to support DevOps environment in the cloud. Tanzu/Containers vs VM's. When it best to use each? Modern Application deployment in containers. In the beginning, public cloud IaaS was delivered exclusively via virtual machines. But today, new virtualization methods are taking hold, including containers and serverless computing. As cloud computing principles become more embedded in application development and infrastructure operations, containers and serverless will become increasingly attractive deployment vehicles for code. From requirements to installation.

Tags: Cloud, Infrastructure as a Service (IaaS), ThinkAgile, VMware

Published: 2023-08-17
Length: 60 minutes

> **Start the training:**
> Employee link: Grow@Lenovo

Course code: DVCLD203

38. **ThinkAgile Accelerating Cloud Agility: Understanding ThinkAgile VX**
2023-07-28 | 50 minutes | Employees and Partners

Brian Faleiro, Lenovo Technical Product Manager, discusses ThinkAgile VX use cases, where the solution can be positioned. He reviews recent technical improvements and discusses deployment and lifecycle management, 'why ThinkAgile VX', what are the requirements that customers are looking for and how we are solving those requirements.

Tags: ThinkAgile

Published: 2023-07-28
Length: 50 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: DVXT201

39. **ThinkAgile Accelerating Cloud Agility: HX Series Technical Presentation**
2023-07-28 | 40 minutes | Employees and Partners

Amalu Santhosh, Lenovo Technical Product Manager, reviews the ThinkAgile HX product portfolio. She will walk you through a technical deep dive into HX workloads and discuss technical details and performance of the latest ThinkAgile HX solutions.

Tags: ThinkAgile

Published: 2023-07-28
Length: 40 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: DHXT201

40. **ThinkAgile VX Series - Technical Presentation**
2023-07-12 | 60 minutes | Employees and Partners

Join us in this comprehensive course on ThinkAgile VX Series, where you will gain a deep understanding of its technical overview and components. Dive into the world of Data Processing Units (DPUs) and explore their technical aspects, including their role and benefits. Unlock the potential of ThinkAgile VX Series through a detailed exploration of its versatile use cases, ranging from Hybrid Cloud deployment to VDI, Kubernetes, and AI/ML applications. Moreover, you will learn about effective deployment strategies and lifecycle management processes.

By the end of this training, you should be able to:
•Understand the technical overview of ThinkAgile VX Series
•Gain knowledge about DPU (Data Processing Unit) and its technical aspects
•Explore various use cases of ThinkAgile VX Series, including Hybrid Cloud deployment, VDI (Virtual Desktop Infrastructure), Kubernetes, and AI/ML (Artificial Intelligence/Machine Learning)
•Describe deployment strategies and lifecycle management processes for ThinkAgile VX Series

Tags: Cloud, ThinkAgile

Published: 2023-07-12
Length: 60 minutes

Start the training:
Employee link: Grow@Lenovo
Partner link: Lenovo 360 Learning Center

Course code: DVXSV104

41. **VTT Cloud Architecture - Why Cloud? July 2023**
2023-07-12 | 90 minutes | Employees Only

Theresa Thompson and Luke Huckaba from VMware discuss the VMware and Lenovo Partnership for cloud solutions addresses common IT constraints, such as slow time to value, limited resources and incompatible systems. Cloud is an enabler of digital business. How do we reduce the operational burden of running and maintaining hardware and software for cloud and prepare our customers for workload migrations and which are suitable for a cloud environment. How to align cloud Initiative outcomes with business goals.

Tags: Cloud, Software Defined Infrastruture (SDI), ThinkAgile, VMware

Published: 2023-07-12
Length: 90 minutes

Start the training:
Employee link: Grow@Lenovo

Course code: DVCLD202

42. **Cloud and HCI or Somewhere in Between**
2023-07-11 | 40 minutes | Employees and Partners

Provides a brief overview of Lenovo Portfolio for HCI and Cloud including ThinkAgile HX, VX, MX Certified Nodes and Appliances, Azure, and Engineered Cloud Solutions. Review Scenarios and complete questions "choose your own adventure" to identify and qualify an opportunity as HCI or Cloud and which portfolio solution would be the best option.

Course objectives:
•Where in the Sales Cycle we are
•What is Cloud
•What is Hyperconverged Infrastructure (HCI)
•Review Lenovo Offerings in Cloud and HCI
•Scenarios

Tags: Cloud

Published: 2023-07-11
Length: 40 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: DCLDS104r2

43. **What's New with Nutanix 2.0? Portfolio and Licensing**
2023-06-08 | 15 minutes | Employees and Partners

Nutanix has updated and simplified their licensing for our joint customers. This course is created to give sales and partners representatives an overview for the recent Nutanix licensing changes and their current options.

Course Objectives:

After completing this course, you should be able to:

• Describe the new Nutanix licensing rollout
• List the new pricing and packaging options

Tags: Cloud, Nutanix, Software Defined Infrastruture (SDI), ThinkAgile

Published: 2023-06-08
Length: 15 minutes

> **Start the training:**
> Employee link: Grow@Lenovo
> Partner link: Lenovo 360 Learning Center

Course code: DHXL001

44. **Data Infrastructure Management - DM Series Storage**
2022-10-28 | 25 minutes | Employees Only

This course provides a technical overview of the ThinkSystem DM series products. Course DDMO101 – Lenovo ThinkSystem DM & DE Series Overview is recommended prior to this course.

By the end of this course, you should be able to:
•Recognize the components of the Lenovo Data Management portfolio
•Discuss the features of the Lenovo Data Management components
•Describe the features of the SnapCenter software components

Tags: Sales, Storage, Technical Sales, ThinkSystem

Published: 2022-10-28
Length: 25 minutes

> **Start the training:**
> Employee link: Grow@Lenovo

Course code: DDM200

Related publications and links

For more information, see these resources:

- Lenovo ThinkAgile VX Series
  https://www.lenovo.com/us/en/data-center/software-defined-infrastructure/ThinkAgile-VX-Series/p/WMD00000340
- ThinkAgile VX - Best Recipes
  http://datacentersupport.lenovo.com/us/en/solutions/HT505302
- Lenovo ThinkAgile HX Series Best Recipes
  https://support.lenovo.com/us/en/solutions/HT515725
- ThinkSystem SR630 V4 product guide:
  https://lenovopress.lenovo.com/lp1971-thinksystem-sr630-v4-server

Related product families

Product families related to this document are the following:

- 2-Socket Rack Servers
- Hyperconverged Infrastructure
- ThinkAgile VX Series for VMware

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