



# ThinkAgile HX Certified Nodes

## Rapidly and confidently deploy HCI clusters

### Optimize Your HCI Deployment

When it comes to hyperconverged deployments, Lenovo offers flexibility so that customers can choose the model that best suits their business needs.

Since 2014, Lenovo has collaborated with Nutanix to offer ThinkAgile HX Series, a best-in-class turnkey hyperconverged system that integrates, validates, and optimizes Nutanix's industry-leading software with Lenovo's highly reliable platforms — including white-glove Lenovo deployment services.

ThinkAgile HX appliances include a bundled Life of Device license, which remains with the appliance for its lifetime. For customers who prefer to provide their own Nutanix software licenses, Lenovo offers another choice: the ThinkAgile HX Certified Node, which includes:

- Fully validated and integrated hardware and firmware, certified with Nutanix software
- Preloaded Nutanix software for ready deployment, Nutanix term license obtained separately
- Flexibility to bring your own Nutanix term-based license, transferable to other HX certified nodes
- Flexibility to provide your own deployment services or optionally use Lenovo Deployment Services

### Increase Simplicity and Uptime

ThinkAgile HX consolidates compute, storage, and virtualization software into simple building blocks, easily managed in scale-out clusters through a single interface. Achieve even simpler IT operations by using Nutanix Prism for one-click provisioning, insights, and firmware updates. Lenovo XClarity, a fast and intuitive resource management tool, can be used in concert with Prism.

A successful hyperconverged deployment depends on reliable servers that ensure your business-critical workloads run without interruption. For 8 years running, Lenovo servers have ranked as the industry's most reliable x86 platforms. Enhanced with faster processors and memory, Lenovo platforms hold more than 294 current performance world records, so you can run your workloads with blazing-fast speed<sup>^</sup>. New refreshed HX series featuring the latest technological advancements in processing with 4th Gen processors from AMD processors is now available with more cores and greater GPU density.

With ThinkAgile HX Certified Nodes, you have the freedom to bring your own Nutanix term-based licenses while leveraging outstanding Lenovo reliability and performance plus Nutanix simplicity. Deploy your HCI clusters rapidly and confidently with Lenovo.

Lenovo

## ThinkAgile HX 1001 Series Certified Nodes - Intel

The 1U 1-node ThinkAgile HX 1001 Series Certified Node is engineered for light-to-medium workloads (business applications and VDI), and optimized for remote office/branch office (ROBO) environments.

### Specifications

Model	HX1331, 1U form factor	HX1321, 1U form factor
Audience	Remote Office/Branch Office (ROBO)	
Processor	1x 3rd Gen Intel® Xeon® Silver, Gold, or Platinum processor, up to 270W	1x 2nd Gen Intel® Xeon® Silver, Gold, or Platinum processor, up to 205W
Memory	64GB - 2TB	64GB - 384GB
Drive Bays	4x 3.5" + 2x 2.5" (Optional)	4x 3.5"
SSD Options (Hybrid Config)	2x 1.6TB, 1.92TB, 3.84TB, 7.68TB	2x 480GB, 800GB, 960GB, 1.92TB, 3.84TB, 7.68TB
HDD Options (Hybrid Config)	2x or 4x 4TB, 6TB, 8TB, 10TB, 12TB, 16TB	2x 4TB, 6TB, 8TB, 10TB, 12TB, 16TB
SSD Options (All-Flash Config)	2x, 4x or 6x 1.6TB, 1.92TB, 3.84TB, 7.68TB	2x or 4x 480GB, 800GB, 960GB, 1.6TB, 1.92TB, 3.84TB, 7.68TB
GPU	0-1x single wide	Not supported
10GBASE-T/10GbE SFP+ Ports	2-6	2-6
25GbE SFP28 Ports	0-4	0-4
Hypervisors Supported	Nutanix Acropolis Hypervisor (preloaded), VMware ESXi (optional preload)	Nutanix Acropolis Hypervisor (preloaded), VMware ESXi (optional preload), Microsoft Hyper-V 2016
Systems Management	Hardware management via Lenovo XClarity Software management through Nutanix Prism Firmware upgrade via Nutanix Life Cycle Manager (LCM)	
License Options	Nutanix New Packaging & Pricing (PnP)	
Deployment Services	Lenovo Professional Deployment services available	
Warranty Support	Lenovo 3-year, 4-year, or 5-year limited hardware warranty, ThinkAgile Advantage Single Point of Support where available	

## ThinkAgile HX 2001 Series Certified Nodes - Intel

ThinkAgile HX 2000 Series appliances are available in 1U 1-node form factors, optimized for small and medium businesses (SMBs).

### Specifications

Model	HX2331, 1U form factor	HX2321, 1U form factor
Audience	Small and Medium Businesses	
Processor	2x 3rd Gen Intel® Xeon® Silver, Gold, or Platinum processor, up to 270W	2x 2nd Gen Intel® Xeon® Silver, Gold, or Platinum processor, up to 205W
Memory	64GB - 4TB	96GB - 1.5TB
Drive Bays	4x 3.5" + 2x 2.5" (optional)	4x 3.5"
SSD Options (Hybrid Config)	2x 1.92TB, 3.84TB, 7.68TB	2x 480GB, 800GB, 960GB, 1.6TB, 1.92TB, 3.84TB
HDD Options (Hybrid Config)	2x or 4x 4TB, 6TB, 8TB, 10TB, 12TB, 16TB	0-2x 1TB, 2TB, 4TB, 6TB, 8TB, 10TB, 12TB, 16TB
SSD Options (All-Flash Config)	2x, 4x or 6x 1.6TB, 1.92TB, 3.84TB, 7.68TB	2x or 4x 480GB, 800GB, 960GB, 1.6TB, 1.92TB, 3.84TB
GPU	0 - 2x single wide	Not supported
10GBASE-T/10GbE SFP+ Ports	2-6	2-8
25GbE SFP28 Ports	0-6	0-6
Hypervisors Supported	Nutanix Acropolis Hypervisor (preloaded), VMware ESXi (optional preload)	Nutanix Acropolis Hypervisor (preloaded), VMware ESXi (optional preload), Microsoft Hyper-V 2016
Systems Management	Hardware management via Lenovo XClarity Software management through Nutanix Prism Firmware upgrade via Nutanix Life Cycle Manager (LCM)	
License Options	Nutanix New Packaging & Pricing (PnP)	
Deployment Services	Lenovo Professional Deployment services available	
Warranty Support	Lenovo 3-year, 4-year, or 5-year limited hardware warranty; ThinkAgile Advantage Single Point of Support where available	

## ThinkAgile HX 3001 Series Certified Nodes - Intel

ThinkAgile HX 3001 Series Certified Nodes featuring the latest Intel Xeon Scalable processors are available in 1U 1-node, 2U 1-node, and 2U 4-node form factors. These Certified Nodes are engineered for compute-heavy workloads (business applications and VDI) and offer rack-dense and multi-GPU-capable (-G) models.

### Specifications

Model	HX3331 (+ SAP HANA)	HX3321 (+ SAP HANA)	HX3521-G	HX3721
Workload	General virtualization and VDI			
Form Factor	1U	1U	2U	2U 4-node
Processor	2x 3rd Gen Intel® Xeon® Silver, Gold, or Platinum processor, up to 250W	2x 2nd Gen Intel® Xeon® Silver, Gold, or Platinum processor, up to 205W	2x 2nd Gen Intel® Xeon® Silver, Gold, or Platinum processor, up to 165W	2x 2nd Gen Intel® Xeon® Silver, Gold, or Platinum processor, up to 140W
	64GB - 4TB	128GB - 3TB	128GB - 1.5TB	192GB - 768GB
Drive Bays	10x-12x 2.5"	10x-12x 2.5"	8x-16x 2.5"	6x 2.5"
SSD Options (Hybrid Configs)	2x-4x 1.6TB, 1.92TB, 3.84TB, 7.68TB	2x-4x 480GB, 800GB, 960GB 1.6TB, 1.92TB, 3.84TB, 7.68TB	2x-4x 480GB, 1.6TB, 1.92TB, 3.84TB, 7.68TB	2x 480GB, 800GB, 960GB, 1.6TB, 1.92TB, 3.84TB, 7.68TB
HDD Options (Hybrid Configs)	4-10x 1TB, 2TB, 2.4TB	4-10x 1TB, 2TB, 2.4TB	6-14x 1TB, 2TB, 2.4TB	4x 1TB, 2TB, 2.4TB
SSD Options (All-Flash Configs)	2x-12x 1.6TB, 1.92TB, 3.84TB, 7.68TB	2x-12x 480GB, 800GB, 960GB, 1.6TB, 1.92TB, 3.84TB, 7.68TB	2x-16x 480GB, 800GB, 960GB, 1.6TB, 1.92TB, 3.84TB, 7.68TB	2x-6x 480GB, 800GB, 960GB, 1.6TB, 1.92TB, 3.84TB, 7.68TB
NVMe Options (All-Flash Configs)	2x, 10x, 12x 1.6TB, 3.2TB, 3.84TB, 6.4TB, 7.68TB	0, 2, or 4x 1.6TB, 3.2TB, 3.84TB, 6.4TB	None	None
GPU Options	0-2x single wide	None	0-2x NVIDIA P40, V100, M60, M10; 0-5x NVIDIA T4	None
10GBASE-T/10GbE SFP+ Ports	0-6	2-10	2-10	2-4
25GbE SFP28 Ports	0-6	0-6	0-6	0-2
Hypervisors Supported	Nutanix Acropolis Hypervisor (preloaded), VMware ESXi (optional preloaded),	Nutanix Acropolis Hypervisor (preloaded), VMware ESXi (optional preloaded), Microsoft Hyper-V 2016		
Systems Management	Hardware management via Lenovo XClarity Software management through Nutanix Prism Firmware upgrade via Nutanix Life Cycle Manager (LCM)			
License Options	Nutanix New Packaging & Pricing (PnP)			
Deployment Services	Lenovo Professional Deployment services available			
Warranty Support	Lenovo 3-year, 4-year, or 5-year limited hardware warranty, ThinkAgile Advantage Single Point of Support where available			

## ThinkAgile HX 5001 Series Certified Nodes - Intel

The 2U 1-node ThinkAgile HX 5001 Series Certified Nodes are engineered for storage-heavy workloads (Big Data and enterprise applications) and offer a high-capacity model.

### Specifications

Model	HX5531	HX5521
Workload	Big Data and High Capacity	
Form Factor	2U	2U
Processor	2x 3rd Gen Intel® Xeon® Silver, Gold, or Platinum processor, up to 220W	2x 2nd Gen Intel® Xeon® Silver, Gold, or Platinum processor, up to 165W
Memory	64GB - 4TB	128GB - 3TB
Drive Bays	12x 3.5" + 4x 2.5" (optional)	12x or 14x 3.5"
SSD Options (Hybrid Config)	2x-6x, 1.6TB 1.92TB, 3.84TB, 7.68TB	2x-6x 480GB, 800GB, 960GB, 1.92TB, 3.84TB, 7.68TB
	6x-12x 4TB, 6TB 6x-10x 8TB 8x 10TB, 12TB, 16TB	6x-12x 4TB, 6TB, 6x-10x 8TB 8x 10TB, 12TB, 16TB
SSD Options (All-Flash Config)	2x-16x, 1.6TB 1.92TB, 3.84TB, 7.68TB	6x-14x 480GB, 800GB, 960GB, 1.6TB, 1.92TB, 3.84TB, 7.68TB
NVMe Options (All-Flash Config)	None	None
GPU Options	0 - 6x single wide or 2x double wide	Not supported
10GBASE-T/10GbE SFP+ Ports	0-10	2-10
25GbE SFP28 Ports	0-16	0-8
Hypervisors Supported	Nutanix Acropolis Hypervisor (preloaded), VMware ESXi (optional preload)	Nutanix Acropolis Hypervisor (preloaded), VMware ESXi (optional preload), Microsoft Hyper-V 2016
Systems Management	Hardware management via Lenovo XClarity Software management through Nutanix Prism Firmware upgrade via Nutanix Life Cycle Manager (LCM)	
License Options	Nutanix New Packaging & Pricing (PnP)	
Deployment Services	Lenovo Professional Deployment services available	
Warranty Support	Lenovo 3-year, 4-year, or 5-year limited hardware warranty, ThinkAgile Advantage Single Point of Support where available	

## ThinkAgile HX 7001 Series Certified Nodes - Intel

The 2U and 4U 1-node ThinkAgile HX 7000 Series appliances are engineered for high-performance and mission-critical workloads (enterprise applications and in-memory databases (such as SAP HANA) and optimized for I/O intensive operation.

### Specifications

Model	HX7531 (+ SAP HANA)	HX7521 (+ SAP HANA)	HX7821 (+ SAP HANA)
Workload	High Performance and Databases		Mission-Critical Workloads
Form Factor	2U	2U	4U
Processor	2x 3rd Gen Intel Xeon Silver, Gold, or Platinum processor, up to 270W	2x 2nd Gen Intel Xeon Silver, Gold, or Platinum processor, up to 205W	4x 2nd Gen Intel Xeon Silver, Gold, or Platinum processor, up to 205W
Memory	64GB - 4TB	192GB - 3TB	384GB - 6TB
Drive Bays	24x 2.5"	24x 2.5"	Up to 24x 2.5"
SSD Options (Hybrid Config)	2x-8x 1.6TB, 1.92TB, 3.84TB, 7.68TB	4x-8x 480GB, 800GB, 960GB, 1.6TB, 1.92TB, 3.84TB, 7.68TB	Up to 8x 480GB, 800GB, 960GB, 1.6TB, 1.92TB, 3.84TB, 7.68TB
HDD Options	8x-20x 1TB, 2TB, 2.4TB	12x-20x 1TB, 2TB, 2.4TB	Up to 20x 1TB, 2TB, or 2.4TB 2.5"
SSD Options (All-Flash Config)	4x-24x 1.6TB, 1.92TB, 3.84TB, 7.68TB	12x-24x 480GB, 800GB, 960GB, 1.6TB, 1.92TB, 3.84TB, 7.68TB	Up to 24x 480GB, 800GB, 960GB, 1.6TB, 1.92TB, 3.84TB, 7.68TB
NVMe Options (All-Flash Config)	0, 2x, or 4x 1.6TB, 3.2TB, 6.4TB, 7.68TB	0, 2, or 4x 1.6TB, 3.2TB, 6.4TB	
GPU	0-7x single wide or 2x double wide	Not supported	Not supported
10GBASE-T/10GbE SFP+ Ports	0-10	2-10	2-10
25GbE SFP28 Ports	0-16	0-8	0-8
Hypervisors Supported	Nutanix Acropolis Hypervisor (preloaded), VMware ESXi (optional preload)	Nutanix Acropolis Hypervisor (preloaded), VMware ESXi (optional preload), Microsoft Hyper-V 2016	
Systems Management	Hardware management via Lenovo XClarity Software management through Nutanix Prism Firmware upgrade via Nutanix Life Cycle Manager (LCM)		
License Options	Nutanix New Packaging & Pricing (PnP)		
Deployment Services	Lenovo Professional Deployment services available		
Warranty Support	Lenovo 3-year, 4-year, or 5-year limited hardware warranty, ThinkAgile Advantage Single Point of Support where available		

## ThinkAgile HX AMD 1U Series Certified Nodes

The ThinkAgile HX 3001 Series Certified Node, featuring the latest AMD EPYC processors, is available in a rack-dense 1U 1-node form-factor. It is packed with high memory and core density, making it perfect for virtual desktop infrastructure (VDI) and general virtualization workloads (business applications).

### Specifications

Model	HX3375 appliance, 1U form factor	HX645 V3 Certified Nodes, 1U form factor
Workloads	General Virtualization and Virtual Desktop Infrastructure (VDI)	General Virtualization and Virtual Desktop Infrastructure (VDI), ROBO
Processors	1x or 2x AMD EPYC™ 7002 / 7003 Series Processors, up to 64 cores, 240W	2x AMD EPYC™ 9004 Series Processors, up to 96 cores, 360W
Memory	64GB - 4TB	64GB - 6TB
Drive Bays	Up to 12x 2.5" drives Up to 4x NVMe drives (requires 2 CPUs)	Up to 10x 2.5" + 2x 2.5" drives Up to 4x NVMe drives (requires 2 CPUs)
SSD Options (Hybrid Config)	2x-4x 800GB, 960GB, 1.6TB, 1.92TB, 3.84TB, 7.68TB	No hybrid config support
HDD Options (Hybrid Config)	4x-10x 1TB, 2TB, 2.4TB	No HDD support
SSD Options (All-Flash Config)	4x-12x 800GB, 960GB, 1.6TB, 1.92TB, 3.84TB, 7.68TB	2x-12x 960GB, 1.92TB, 3.84TB, 7.68TB
NVMe Options (All-Flash Config)	2x-12x 960GB, 1.92TB, 3.84TB, 7.68TB	0, 2, or 4x 1.6TB, 3.2TB, 3.84TB, 6.4TB, 7.68TB, 15.36TB
10/25GbE SFP28 Ports	0-6	2-4 25Gb ports via OCP + optional PCIe adapters
Hypervisors Supported	Nutanix Acropolis Hypervisor (preloaded), VMware ESXi (optional preload)	
Systems Management	Hardware management via Lenovo XClarity Software management through Nutanix Prism Firmware upgrade via Nutanix Life Cycle Manager (LCM)	
License Options	Nutanix New Packaging & Pricing (PhP)	
Warranty Support	Lenovo 3-year, 4-year, or 5-year limited hardware warranty	

## ThinkAgile HX AMD 2U Series Certified Nodes

The ThinkAgile HX AMD 2U Series Certified Nodes, featuring the latest AMD EPYC processors, is available in a rack-dense 2U 1-node form-factor. It is packed with high memory and core density, making it perfect for mission critical workloads - Database & Enterprise applications, AI/ML, Development & Test & Data Protection.

### Specifications

Model	HX665 V3 Storage Certified Nodes, 2U form factor	HX665 V3 Certified Nodes, 2U form factor
Workloads	File & Object Storage, Data Protection, Development & Test	VDI, Database & Enterprise Application, Development & Test, AI/ML, Messaging, Collaboration and Unified Communications
Processors	1x or 2x AMD EPYC™ 9004 Series Processors, up to 96 cores, 360W	2x AMD EPYC™ 9004 Series Processors, up to 96 cores, 360W
Memory	64GB - 6TB	64GB - 6TB
Drive Bays	Up to 12x 3.5"+4x 2.5" drives	Up to 24x 2.5" drives
SSD Options (Hybrid Config)	2x-4x, 1.6TB, 1.92TB, 3.84TB, 7.68TB	No hybrid config support
HDD Options (Hybrid Config)	4x-12x 4TB, 6TB, 8TB 8x 10TB, 12TB, 16TB, 20TB	No HDD support
SSD Options (All-Flash Config)	2x-12x 800GB, 960GB, 1.6TB, 1.92TB, 3.84TB, 7.68TB	2x-16x 1.92TB, 3.84TB, 7.68TB
NVMe Options (All-Flash Config)	None	0, 2, or 4x 1.6TB, 3.2TB, 3.84TB, 6.4TB, 7.68TB, 15.36TB
10/25GbE SFP28 Ports	2-4 25Gb ports via OCP + optional PCIe adapters	2-4 25Gb ports via OCP + optional PCIe adapters
Hypervisors Supported	Nutanix Acropolis Hypervisor (preloaded), VMware ESXi (optional preload)	
Systems Management	Hardware management via Lenovo XClarity Software management through Nutanix Prism Firmware upgrade via Nutanix Life Cycle Manager (LCM)	
License Options	Nutanix New Packaging & Pricing (PnP)	
Warranty Support	Lenovo 3-year, 4-year, or 5-year limited hardware warranty	



## About Lenovo

Lenovo (HKSE: 992) (ADR: LNVGY) is a US\$70 billion revenue global technology powerhouse, ranked #159 in the Fortune Global 500, employing 75,000 people around the world, and serving millions of customers every day in 180 markets. Focused on a bold vision to deliver smarter technology for all, Lenovo is expanding into new growth areas of infrastructure, mobile, solutions and services. This transformation is building a more inclusive, trustworthy, and sustainable digital society for everyone, everywhere.

† [ITIC Global Reliability Study](#)

^ Visit [Lenovo Servers Continue to Lead the Industry in Performance and Value](#) for more information.

© 2023 Lenovo. All rights reserved.

**Availability:** Offers, prices, specifications and availability may change without notice. Lenovo is not responsible for photographic or typographic errors. **Warranty:** For a copy of applicable warranties, write to: Lenovo Warranty Information, 1009 Think Place, Morrisville, NC, 27560. Lenovo makes no representation or warranty regarding third-party products or services. **Trademarks:** Lenovo, the Lenovo logo, ThinkAgile®, and XClarity® are trademarks or registered trademarks of Lenovo. Intel® and Xeon® are trademarks of Intel Corporation or its subsidiaries. Hyper-V® and Microsoft® are trademarks of Microsoft Corporation in the United States, other countries, or both. Other company, product, or service names may be trademarks or service marks of others. Document number DS0046, published November 10, 2022. For the latest version, go to [lenovopress.lenovo.com/ds0046](http://lenovopress.lenovo.com/ds0046).

## For More Information

To learn more about Lenovo ThinkAgile HX Certified Nodes, contact your Lenovo representative or Business Partner or visit [lenovo.com/thinkagile](http://lenovo.com/thinkagile)

