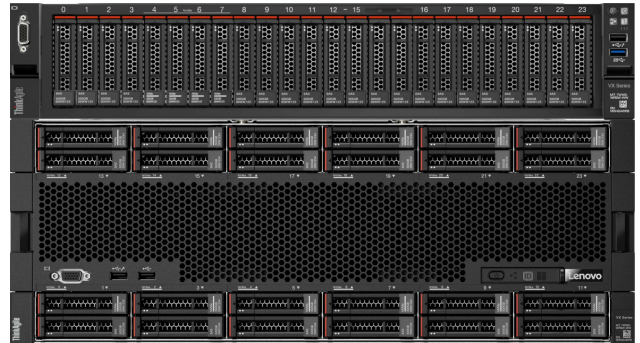


ThinkAgile VX Solution for SAP HANA

SAP HANA speed meets
hyperconverged simplicity



Hyperconverged simplicity in a VMware virtualized environment

The Lenovo Solution for SAP® HANA® on ThinkAgile VX offers businesses with SAP HANA deployments an opportunity to reap the efficiencies and cost savings of hyperconverged infrastructure powered by VMware vSAN technology. By migrating SAP landscapes and SAP HANA workloads from complex, multi-tiered legacy architectures to hyperconverged clusters, customers can enjoy the simplicity, scalability, and cost savings of hyperconverged infrastructure, which consolidates storage and compute into a single virtual pool. The result is a streamlined data center with reduced overhead and maintenance. Developed in close collaboration with SAP and VMware, the Lenovo Solution for SAP HANA on ThinkAgile VX provides mission-critical performance and 24/7 availability, plus easy scalability. The solution includes:

- VX 2U and 4U Certified Nodes utilizing the dramatic efficiency and cost savings of industry-leading VMware virtualization technology
- Two, four or eight ultra powerful Intel® Xeon® Scalable processors
- Factory-integrated, validated, and preconfigured VMware ESXi hypervisor, vSphere server virtualization and vSAN storage virtualization software

- Built on award-winning ThinkSystem SR650 and SR950 servers.
- vSphere Lifecycle Manager (vLCM), for faster deployment, simplified patching and updating of software, and automation support, enabling you to simplify the management of your infrastructure
- 24/7 Lenovo ThinkAgile Advantage single point of contact support, plus SAP HANA solution support from Lenovo's SAP experts
- Optional Lenovo Professional Services deployment of SAP HANA onsite for a seamless customer experience

Leverage advanced database functionality

SAP HANA is used by organizations worldwide to help accelerate decision-making and gain insights into key trends hidden within their data. Companies can instantly access, model, and analyze all of their SAP business transactional and analytical data from virtually any data source in real-time. Operations can be simplified using a single copy of enterprise data, data transactions processed in-memory for faster performance, and advanced analytics leveraged to make smart decisions in real-time.

Lenovo

Lenovo is an SAP market leader, having teamed with SAP for more than 30 years and shipped more than 14,000 SAP HANA systems. Lenovo's deep heritage with SAP translates into a seamless customer experience — from initial planning and architecture through deployment, lifecycle management, and support.

ThinkAgile VX: tight integration with VMware

The ThinkAgile VX 2U and 4U Certified Nodes include vSAN-certified components and vSAN-certified firmware releases. They provide the simplest way to bring a new VMware hyperconverged environment online or they can easily integrate into an existing VMware environment.

Deliver tremendous reliability

Successfully running SAP HANA analytics workloads requires outstanding performance and 24/7 availability, plus easy scalability. Businesses that can accomplish this with minimized operating expenses and footprint can gain a long-term advantage over their competition. You can't do better than Lenovo. For seven consecutive years, our systems have ranked #1 in the industry for x86 server reliability.*

Highlights

- Allows businesses to accelerate decision making and gain insights from their data
- Provides the simplicity, scalability, and cost-savings of a VMware hyperconverged infrastructure for SAP applications, including SAP HANA
- Optionally includes personalized, single point of contact support through Lenovo ThinkAgile Advantage
- Utilizes Lenovo's extensive expertise in the deployment and solution support of SAP HANA

Lenovo's deep heritage with SAP translates into a seamless customer experience — from initial planning and architecture through deployment, lifecycle management, and support.

Accelerate SAP HANA workloads

Designed for any size business from SMBs through large enterprises, ThinkAgile VX Series 2U and 4U Certified Nodes include ThinkAgile Advantage, a world-class support experience to ensure customers make the most of their ThinkAgile products and solutions. A dedicated Lenovo specialist will be a single point of contact and own the support case end-to-end, for a faster and more seamless resolution.

Additionally, in coordination with SAP, Lenovo's specialized SAP experts will provide SAP solution support.

Lenovo XClarity Integrator for VMware vCenter expands the virtualization management capabilities of vCenter with Lenovo XClarity systems management functionality. It provides the discovery, configuration, monitoring, event management, and power monitoring of Lenovo systems via a single, simple management interface. And because Lenovo servers hold more than 240 current world records for performance†, including records related to SAP HANA, your workloads will finish lightning fast.

Bottom line

The Lenovo ThinkAgile VX Solution for SAP HANA enables businesses to accelerate decision making and gain insights into key trends locked in their data, while simplifying their IT infrastructure and driving down costs. The combination of preloaded easy-to-use VMware virtualization software on powerful, extremely reliable Lenovo hardware provides the ideal infrastructure platform for SAP HANA and other SAP applications.

ThinkAgile Advantage single point of contact and world-class Lenovo SAP solution support provide a seamless support experience, with the option to add Premier Support for four or five years.

ThinkAgile Advantage: personalized support

ThinkAgile Advantage provides a world-class experience for your ThinkAgile products and solutions. You'll skip the wait and connect directly with skilled technicians through your own dedicated phone line for real-time triaging and troubleshooting. As a single point of contact, your dedicated Lenovo specialist will own your support case end-to-end, ensuring a faster and more seamless resolution. You'll also enjoy faster time to value and reduced system disruption, thanks to the plan's hardware and software deployment benefit from the Lenovo Professional Services team. Finally, Lenovo's SAP experts provide SAP solution support.

SAP HANA for ThinkAgile VX solution

The Lenovo ThinkAgile VX Solution for SAP HANA includes the ThinkAgile VX 2U Certified Node for SAP HANA and the ThinkAgile VX 4U/4S or ThinkAgile 4U/8S Certified Node for SAP HANA.

ThinkAgile VX SAP HANA Nodes

Supported SAP HANA Configurations using 2, 4 or 8 Sockets

Model Name	ThinkAgile VX 2U	ThinkAgile VX 4U Node for SAP HANA	
Machine Type/Model	7Y94CTO6WW	7Z12CTO2WW	
Processor	2x 2nd Gen Intel® Xeon® Scalable processors	2x, 4x or 8x 2nd Gen Intel® Xeon® Scalable processors	
Memory	Up to 3TB (using 128GB TruDDR4 DIMMs)	Up to 6TB (using 128GB TruDDR4 DIMMs)	Up to 12TB (using 128GB TruDDR4 DIMMs)
S4/HANA (OLTP)	128GB - 3 TB vMemory / VM	128GB - 6 TB vMemory / VM	128GB - 12 TB vMemory / VM
BW/4HANA (OLAP)	128GB -1.5 TB vMemory / VM	128GB - 3 TB vMemory / VM	128GB - 6 TB vMemory / VM
Persistent Memory	Up to 3TB Intel Optane Persistent Memory	Up to 6TB Intel Optane Persistent Memory	
Drive Bays	Up to 24 2.5-inch		
Disk Groups per node (min. 2) ¹	2 / 4		
vSAN Nodes / Cluster	3-64 nodes		
Disks allowed	Cache: Any Lenovo Mainstream or Performance NVMe SAS SSD (max 4) Capacity: Any Lenovo Entry, Mainstream or Performance SATA/SAS or NVMe SSD (max 20)		
Network	Minimum 4 NIC ports required Recommended 4 × 25GbE or higher		
Hypervisors Preloaded and Supported	VMware ESXi/vSAN 6.7 U3 or higher, VMware ESXi/vSAN 7.0 U1 or higher	VMware ESXi/vSAN 7.0 U1 or higher	VMware ESXi/vSAN 7.0 U2

¹ Each Productive SAP HANA VM requires a Disk Group.

Additional resources

For more information, consult the following resources

- [SAP HANA Certification Listing](#)
- [SAP Best Practices](#)
- [SAP Reference Architecture](#)
- [ThinkAgile VX Best Recipe](#)
- [Initial 8-Socket support](#)

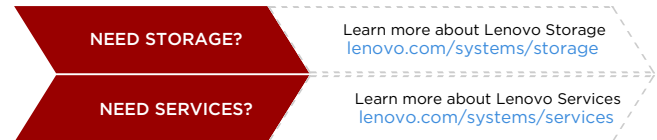
Bios Settings: See “CMOS (and other) Settings” within desired Best Recipe release for MT 7Z12 (December 2020 and later)

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.

For detailed specifications, consult:

- [Lenovo ThinkAgile VX Series](#)
- [ThinkAgile VX 4S 4U Certified Node for SAP HANA](#)
- [Best Practices for Deploying ThinkAgile VX with SAP](#)
- [Reference Architecture for SAP Applications using Lenovo ThinkAgile VX Series](#)



* See the latest [ITIC Global Server Hardware and OS Reliability Survey](#) .

† Visit [Lenovo Servers Continue to lead the Industry in Performance and Value](#) .

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