

# Refresh and Modernize with ThinkAgile VX HCI

Lenovo

## Improve IT responsiveness and lower operational costs

In most organizations today, IT is supporting a hybrid or multi cloud environment with a mix of on-premises infrastructure and public cloud applications. One of the key attributes of the public cloud providers is the ability to grow or shrink compute and storage capacity as needed to handle demand spikes or seasonal swings in business activity.

Hyperconverged infrastructure (HCI) provides similar benefits to on-premises infrastructure. HCI allows you to pool compute and storage resources from a cluster of cost-effective industry standard x86 servers and allocate those resources as needed to your business applications running on the server cluster.

Growing or shrinking the resources allocated to an application is simple, providing your organization with the flexibility to optimize the alignment of IT resources to business needs. HCI usage has grown over the years, with organizations now using HCI even for business-critical applications and databases.

### Enabling modernized workloads

VMware vSphere® is the leading server virtualization application, while VMware vSAN™ extends virtualization capabilities to storage resources. Combined, vSphere and vSAN provide the core HCI function in the Lenovo Intel-powered ThinkAgile VX series.

Refreshing and modernizing your IT infrastructure with Lenovo ThinkAgile VX HCI powered by VMware vSAN provides the agile and scalable platform your organization needs to support modern application development and roll out cloud services both internally and for customers and partners.

Businesses running HCI solutions with VMware virtualization are experiencing:

- 259% return on Investment<sup>1</sup>
- 47% reduction in TCO<sup>2</sup>
- 40% time reduction for firmware updates



## ThinkAgile VX as a Service Option

All ThinkAgile VX Series systems are available as Infrastructure as a Service (IaaS) solutions with Lenovo TruScale. It provides the simplicity and flexibility of the cloud via on-premises infrastructure.

TruScale simplifies the procurement, deployment, and management of modern IT infrastructures. It gives you the flexibility, security and control you need to deliver the performance and capabilities that drive growth and competitive advantage.

- Get all the power and strategic advantage of the latest data center hardware through a pay-as-you-go business model.
- Easily scale without incremental capital investments
- Focus more on your bigger picture thanks to 24/7 proactive monitoring, management, and services.

## According to IDC<sup>3</sup>, key benefits provided by HCI solutions include:

- Increasing operational simplicity and IT staff agility
- Eliminating dependencies on inefficient/inflexible silos of infrastructure
- Modernizing applications using DevOps methodologies
- Building out private clouds that are software defined and highly automated
- Incorporating hybrid cloud workflows that include public and private clouds
- Providing support for the build-out or upgrade of true disaster-recovery environments with multisite architectures

## Simplify Operations with ThinkAgile VX

From deployment through end of life, Lenovo ThinkAgile VX Series integrated systems powered by VMware vSAN are simple to operate.

ThinkAgile Advantage Services are provided with all ThinkAgile VX integrated systems. Lenovo Services will set up and configure your new solution and provide any training you need to get the system operational. Your VX Series will be up and running productively in hours instead of days or weeks.

If you prefer to set up on your own, ThinkAgile VX integrated systems are shipped from the factory with the hardware configured and software installed. When placed in your network, the system will auto-discover an existing vSAN cluster to join or create a new cluster to which other ThinkAgile VX nodes can be added.

Certified firmware updates are provided throughout the life of the ThinkAgile VX integrated system via vSphere Lifecycle Manager (vLCM). vLCM speeds deployment, simplifies patching and updating software, and offers task automation to free up valuable time for your IT personnel.

Management of the entire solution is accomplished through a single pane of glass with Lenovo XClarity Integrator for VMware vCenter and VMware vSphere. The integrated management offering captures proactive platform alerts, enabling administrators to migrate workloads or replace failing components without incurring downtime.

If you need support, Lenovo ThinkAgile Advantage gives you a direct phone line to a team of experts who support only ThinkAgile solutions. The experts will rapidly diagnose any hardware or software issues and remain with you as the single point of contact throughout the entire support process.

## Reliable High-Performance Platform

The ThinkAgile VX Series is available in several models. Each is preconfigured, pretested, and optimized to provide the simplest way to bring a new VMware hyperconverged environment online.

If you have an existing VMware environment, the VX Series can integrate into it easily.

All Lenovo ThinkAgile VX Series models are high performance systems, holding numerous world performance benchmarks. Engineered for always-on productivity, ThinkAgile systems are ranked #1 in x86 server reliability<sup>4</sup>, and consistently rank high in x86 server customer satisfaction.



Figure 1: Lenovo ThinkAgile VX systems



## Intel's AI-enabled Workload Optimizer by Granulate

By continuously adapting to application workloads, Intel's automated Workload Optimizer enhances performance and reduces latency in cloud deployments

- Improve network response times by up to 40%
- Diagnose bottlenecks
- Minimize cloud migration risks
- Increase throughput by up to 5x
- Modernize data platforms
- Leverage improved microservices agility and performance
- Enjoy up to 60% cost savings in weeks

Granulate learns and analyzes the application-dataflow and processing-stage patterns, ensuring operational scheduling, prioritization, and resource management decisions are automatically adapted in real-time to the specific application and load applied.

Working in combination with 6<sup>th</sup> generational Intel tech, it empowers direct input/output virtualization, VM enter/exit latency reduction, and applicant-tracking system support, while all being backed up by Intel's Security-First Pledge.<sup>5</sup>

Security extends right down to the processor level, securing hardware via the integrated cryptographic keys of a built-in cryptoprocessor, out-of-band (OOB) trust provisioning, and side-channel attack mitigation.

## Complementary Offerings

Application data from the ThinkAgileVX cluster can be backed up with Veeam® Availability Suite™. Veeam Agents for Microsoft Windows and Linux work with Veeam Availability Suite to deliver comprehensive backup and recovery for all workloads - virtual, physical and cloud - via a single management console.

## Why Lenovo

Lenovo is a US\$60 billion revenue Fortune Global 500 company serving customers in 180 markets around the world. Focused on a bold vision to deliver smarter technology for all, we are developing world-changing technologies that power (through devices and infrastructure) and empower (through solutions, services and software) millions of customers every day.

## For More Information

To learn more about the Lenovo ThinkAgileVX and other Lenovo solutions with VMware, please contact your Lenovo Sales Representative or Business Partner, or visit: [www.lenovo.com/vmware](http://www.lenovo.com/vmware)

<sup>1</sup> Davison, Dean and Mark Lauritano. The Total Economic Impact of VMware vSAN. Forrester. September 2019

<sup>2</sup> Compass Partners. VMware HCI Applications Study. September 2020

<sup>3</sup> IDC: The Need for Automation and Cloud-Like Operations Drives Hyperconverged Adoption Market Growth, January 2021, Doc. #US47335521

<sup>4</sup> ITIC Reliability Study, [www.lenovopress.com/lp1117](http://www.lenovopress.com/lp1117)

<sup>5</sup> <https://www.intel.com/content/www/us/en/corporate-responsibility/product-security.html>

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