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# Optimize your Investments in Virtualized Environments with Lenovo ThinkAgile Converged Solution for VMware Solution Brief

### Navigating the Uncertainty, Overcoming the Challenges

The virtualization landscape is undergoing a significant transformation, presenting both opportunities and considerable challenges for Chief Information Officers (CIOs) and IT Administrators. Evolving software licensing models and adjustments in pricing strategies introduces increased long-term operational expenditures, particularly for organizations that preferred perpetual licensing approaches. This shift is exacerbating existing IT complexities, compelling businesses to critically re-evaluate their infrastructure strategies with a sharp focus on cost optimization and the maintenance of operational agility.

The prospect of transitioning away from familiar and proven virtualization platforms can be a costly and time-intensive undertaking, potentially straining valuable IT resources and causing disruptions to critical business operations. Meanwhile, a significant trend is emerging among CIOs to repatriate workloads from the public cloud for enhanced data locality. This strategic move, based on a growing emphasis on data as the engine for future private clouds and private AI initiatives, intensifies the pressure on IT teams to manage the growing data demands while facing economic headwinds and the need for simplified solutions with efficient management.

The Lenovo ThinkAgile Converged Solution for VMware provides a clear, predictable cost-efficient answer to not only address these immediate challenges by optimizing your \$/VMs, but also helps build a resilient, flexible, and scalable infrastructure for the future.

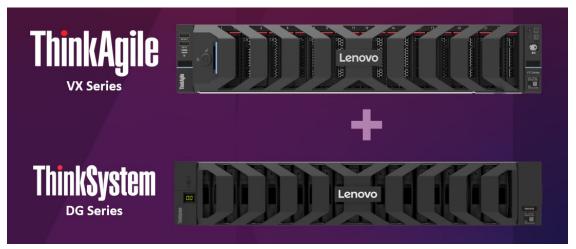


Figure 1. Optimize your virtualized environments with ThinkAgile Converged Solution for VMware

### Introducing the Lenovo ThinkAgile Converged Solution for VMware

Historically, setting up external storage for virtualized workloads was a cumbersome process that necessitated significant collaboration between IT and Storage administrators.

The ThinkAgile Converged Solution for VMware combines the operational simplicity and lifecycle management of ThinkAgile VX Series with the robust data management features offered by ThinkSystem DG Series storage arrays to provide a unified, flexible cloud platform for hybrid storage workloads. Scale compute with the powerful ThinkAgile VX Series and storage with blazing fast all-NVMe ThinkSystem DG Series, independently, with centralized control in VMware vCenter & Lenovo XClarity.

#### Highlights

- 1. Tailored for general purpose workloads to optimize your \$/VMs
- 2. Flexibility to start small and scale compute or storage independently, as you grow
- Simplified vCenter admin tasks through an intuitive UI & automation for centralized management
- 4. Ensure a reliable and compliant environment through consistent lifecycle management guided by ThinkAgile VX Best Recipes.
- 5. Unified support experience with a dedicated phone line to Lenovo Premier Support

Leveraging policy-based management for storage, this solution enables application VM-centric storage provisioning. Storage architects design capability-based storage containers by grouping storage resources that can be consumed by VM admins in vCenter, who can match them to their workload characteristics. This results in smarter storage management, rapid provisioning and dynamic resource utilization, abstracting storage complexities from vSphere admins, enabling them to focus on the virtualization layer. Storage operations such as snapshots, cloning and replication can be offloaded directly to the DG Series storage system thereby improving workload performance and resource utilization.

Moreover, the inclusion of free vSAN capacity, enabled by the VMware vSphere Foundation – VVF license, alongside the virtualized external storage, provides a flexible "best of both worlds" scenario, enabling customers to isolate resources and handle burst capacity effectively for performance-sensitive applications on a single platform.

#### **Effortless Control with Unified Management**

Leverage your existing VMware vCenter expertise to manage the entire platform seamlessly. By integrating with XClarity and the ThinkSystem DG Storage OTV plug-in for vCenter, IT admins get a 360-degree visibility and control of compute and storage, streamlining provisioning and monitoring tasks within a common, intuitive tool – vCenter, ultimately reducing complexity and enhancing platform observability. Deploy new or expand existing clusters, with in-step validation and automation for repetitive deployments, with the ThinkAgile VX Deployer, a GUI-based wizard to simplify deployments.

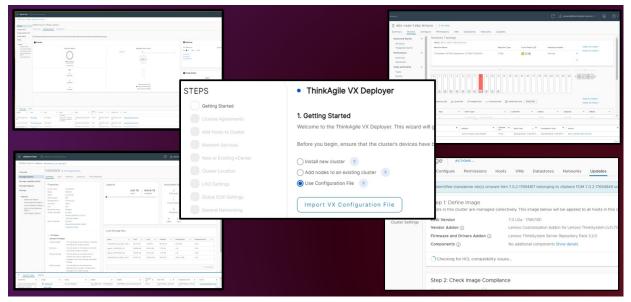


Figure 2. Simplified Operations and Enhanced Observability in VMware vCenter

#### **Build, Scale and Simplify App Delivery**

The flexibility to deploy applications on external storage or vSAN datastores makes it easier to integrate with self-service portal and automation frameworks. Customers can run hybrid workloads and adapt to evolving application demands without significant complexity or disruption, enhancing the performance and availability of their critical applications, leading to better user experiences and business continuity.

#### Data Management & Protection – The Smart Way

Achieve rapid, application-consistent VM snapshots and clones by leveraging storage policies tailored to your applications. This results in faster backups and quicker, more consistent recovery of your applications and data, enhanced by efficient replication. Thin provisioning and on-demand storage allocation at the VM level, improves storage efficiency and reduces wasted capacity. Furthermore, you can directly leverage robust data management features like deduplication, compression, and tiering at the VM level, optimizing both storage costs and performance.

#### Secure, Compliant and Resilient

Built-in encryption and the ability to leverage advanced security features helps protect sensitive data and meet regulatory requirements. Its layered approach, offering granular VM-level security policies and leveraging the advanced security features like data encryption at rest and in-transit, secure authentication, WORM storage, directly reduces the risk of costly data breaches and security incidents. Al-powered Autonomous Ransomware Protection provides a proactive, intelligent, and automated defense mechanism against ransomware. Robust high availability and disaster recovery options, including options to minimize application downtime and ensure business continuity with using Veeam Backup and Recovery.

ThinkAgile VX Series is integrated with VMware vSphere Lifecycle Manager (vLCM) for a single, unified platform for firmware and software updates. Continuous lifecycle management with ThinkAgile VX Best Recipes ensures the environment remains secure and up to date with the latest security patches and firmware updates, reducing long-term vulnerabilities.

#### **Single Point of Support & Services**

Lenovo ThinkAgile gives you a direct phone line to a team of experts who specialize in 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. Lenovo also provides comprehensive services such as deployment services, assessment workshops, hybrid cloud assessment, enterprise server software support, managed services, and health checks.

#### Hyperconverged vs Converged?

Choosing the right infrastructure foundation for your virtualized environment is critical for agility, efficiency, and future growth.

The ThinkAgile Converged Solution for VMware, powered by the VMware vSphere Foundation (VVF) software stack, offers customers the flexibility to run diverse general purpose virtualized applications with enterprise-grade data management and simplified operations. It is suitable for phased migrations or environments where customers need to scale compute and storage resources independently. It provides a clear and optimized cost structure that reduces customers' reliance on the unpredictable nature of software licensing.

For customers who value the complete suite of advanced technologies offered by the VMware Cloud Foundation (VCF) software stack, including the deployment of a private cloud for a fully software-defined and highly automated environment, the jointly co-engineered hyperconverged infrastructure (HCI) solution of ThinkAgile VX Series with VMware Cloud Foundation delivers a cohesive and ideal solution.

The decision between a choice of hyperconverged and converged infrastructure solutions depends on your organization's specific priorities, IT skills and budget and application requirements.

#### **For More Information**

To learn more, read the Reference Architecture: Lenovo ThinkAgile Converged Solution for VMware, or contact your Lenovo Sales Representative or Business Partner.

#### Author

**Brian Faleiro** is the Worldwide Product Manager for Lenovo's ThinkAgile Converged Infrastructure Solutions for Lenovo's virtualization software ecosystem. Brian is responsible for showcasing the business value and differentiation of Lenovo's hybrid cloud solutions with the software defined infrastructure and storage portfolio and contributing to the product lifecycle process.

## **Related product families**

Product families related to this document are the following:

• ThinkAgile VX Series for VMware

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