Simplified, Scalable, and Resilient Hyperconverged Data Protection with Commvault HyperScale X and Lenovo

Solution Brief

The Challenge: Navigating Modern Data Complexity

Organizations are struggling to keep pace with the demands of the modern data landscape. Traditional, siloed backup solutions are no longer sufficient, leading to significant operational and security challenges:

Fragmented Infrastructure: Managing multiple point products for different workloads (virtual, physical, cloud, containers) creates complexity. This leads to inconsistent policies, visibility gaps, and increased administrative overhead, making it difficult to ensure comprehensive data protection.

Relentless Ransomware Threats: Ransomware has evolved from a nuisance to a critical business threat. Legacy backup solutions often lack the immutable storage, proactive monitoring, and rapid recovery capabilities needed to defend against sophisticated attacks, leaving organizations vulnerable to data loss, downtime, and financial damage.

Unsustainable Scalability: Unpredictable data growth forces difficult choices. Traditional scale-up backup appliances require expensive, disruptive forklift upgrades, while managing multiple systems becomes unwieldy. Organizations need a solution that can scale granularly and cost-effectively without adding complexity.

Hybrid Cloud Management Hurdles: As workloads move to the cloud, data becomes distributed across multiple locations. Protecting and managing this data consistently, ensuring data mobility, and controlling cloud costs are significant challenges that legacy solutions were not designed to handle.

The Joint Solution: Data Protection, Simplified

The Lenovo and Commvault solution offers an integrated, enterprise-grade, resilient, scale-out infrastructure with cloud-like simplicity and scalability.

Commvault HyperScale X is an intuitive and easy-to-deploy that is built on top of Commvault's industry-leading technology. It provides comprehensive backup and recovery for all workloads, including virtual machines, containers, applications, databases, and endpoints.

Lenovo ThinkSystem Servers provide the ideal hardware foundation for HyperScale X. Known for their world-class performance, reliability, and security, these servers are engineered to handle the demanding workloads of modern data centers. With features like Lenovo ThinkShield security and XClarity management, they ensure the underlying infrastructure is secure, easy to manage, and optimized for performance.

The solution integrates compute, storage, and data management software into a single, scale-out cluster. Each node, a Lenovo ThinkSystem server, contributes its resources to the distributed pool. This architecture eliminates the need for separate backup servers, media agents, and storage arrays, simplifying the environment and enabling linear scalability.

Lenovo offers pre-configured and tested solutions to simplify deployment for environments ranging from 25TB to 745TB.

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The following table lists the tested solution specifications.

Table 1. Tested solutions

Lenovo HSX Certified System	HSX per TB protection
SR630 V3	25 TB
SR630 V3	50 TB
SR630 V3	74 TB
SR630 V3	124 TB
SR650 V3	151 TB
SR650 V3	372 TB
HS350X V3	453 TB
HS350X V3	745 TB

Key Benefits of the Integrated Solution

Simplified Management: Deploy a complete data protection solution in hours, not weeks. The unified Commvault Command Center provides a single pane of glass to manage all data across hybrid environments, automating policies, monitoring, and reporting to reduce administrative burden.

Elastic Scalability: Start with a three-node configuration and scale out granularly, one node at a time, as data grows. This pay-as-you-grow model eliminates costly over provisioning and disruptive forklift upgrades, ensuring your infrastructure aligns with your business needs.

Enhanced Resilience and Security: The solution provides multi-layered security to combat ransomware and other threats. It combines immutable backup copies, AI-powered anomaly detection, and air-gapped copies with Lenovo's ThinkShield security for a hardened infrastructure. The scale-out architecture ensures high availability, so the loss of a node does not impact data protection operations.

Accelerated Performance: By co-locating compute and storage, the hyperconverged architecture minimizes data travel distance, accelerating backup and recovery operations. This ensures you can meet stringent RTOs/RPOs and get critical business systems back online faster.

True Hybrid Cloud Integration: Natively integrate with all major cloud providers (AWS, Azure, Google Cloud) to seamlessly move data to, from, and between clouds. Use the cloud for long-term retention, disaster recovery, or workload migration, all from the same platform and with optimized cost controls.

Use Case: Backup Modernization

This section highlights the use case structure of the solution.

- **Company:** A global pharmaceutical research and manufacturing company.
- **Challenge:** The company experienced slow backup performance and inconsistent data protection on its legacy infrastructure, causing delays in restoring trial data archived during a critical FDA submission window.
- **Solution:** The customer deployed Commvault HyperScale X software on Lenovo ThinkSystem nodes. They implemented policies for daily incremental and weekly full backups, with immutable retention set for over 10 years to meet compliance mandates.
- **Business Value:** The solution offers significant cost savings, operation agility and compliance confidence:
    - **Cost Savings**: The company avoided regulatory delay penalties and reduced annual backup infrastructure costs.

- ○ **Operational Agility**: Restore times were reduced from hours to minutes, and backup cycles became 40% faster.
- ○ **Compliance Confidence**: The solution meets regulatory compliance requirements for FDA, EMA, and HIPAA.

The following diagram illustrates a high level workflow scheme of the solution and steps to follow.
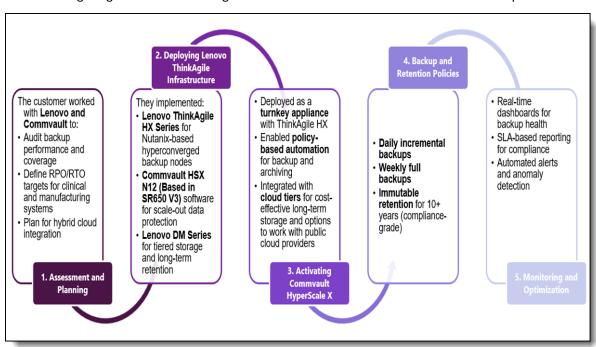

Figure 1. High-level solution flow.

A Partnership Built on Trust

The Commvault and Lenovo partnership provides the technology, expertise, and support you can trust.

- **Best-of-Breed Technology:** Commvault's industry-leading data protection capabilities, combined with Lenovo's smart infrastructure, deliver a fully validated and certified cyber resilience and rapid recovery solution, eliminating integration guesswork.

- **Customer-First Support:** Benefit from a coordinated support model that provides a seamless experience. Whether the issue is software or hardware-related, both companies work together to ensure rapid resolution.

- **Global Reach, Local Expertise:** With a presence in markets around the world, Lenovo and Commvault offer the global scale and local expertise needed to support your business wherever it operates.

Take the Next Step

Ready to simplify your data protection and build a more resilient enterprise?

Learn more and contact us today to schedule a personalized demo and discover how Commvault HyperScale X with Lenovo servers can modernize your data management strategy.

Visit the following resources: Commvault HyperScale X Page, Lenovo Data Center Solutions Page

- Commvault HyperScale X Page - Lenovo Data Center Solutions Page
- Lenovo and Commvault Deliver Better Data Protection and Recovery Solutions Together

- A Modern Approach to Data Protection with Lenovo ThinkSystem HS350X V3 Storage Server and Commvault Cloud HyperScale X Software
- Powering Scale-Out Cyber Resilience with Lenovo ThinkSystem SR650 V3 Server and Commvault Cloud HyperScale X Software
- Commvault Solution Brief
- **Commvault Certified Systems:**
  - Lenovo ThinkSystem SR630 V3
  - Lenovo ThinkSystem SR650 V3
  - Lenovo ThinkSystem HS350X V3

Author

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Related product families

Product families related to this document are the following:

- ThinkSystem HS350X V3 Storage Server
- ThinkSystem SR630 V3 Server
- ThinkSystem SR650 V3 Server

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