



IT Modernization and Hybrid HCI Data Resilience with Lenovo and Veeam

Solution Brief

Unreliable legacy backup and infrastructure create operational vulnerabilities

Enterprises undergoing infrastructure modernization face two primary challenges:

- Risk of Downtime and Data Loss During Migration: Modernizing aging infrastructure is essential
 for performance and scalability, but the migration process itself is fraught with risk. The potential for
 unplanned downtime of critical applications and the loss of data integrity can lead to significant
 business disruption and financial impact. IT teams require a non-disruptive migration path that
 ensures data is protected, validated, and can be rolled back if necessary.
- 2. Data Protection Gaps in Hybrid HCI Environments: The move to HCI platforms like VMware, Nutanix and Microsoft simplifies IT management, but it can also create data protection gaps. Legacy backup solutions may not adequately support multi-hypervisor environments, leaving critical VMs unprotected during transitions. A single data loss incident, as a result of a misconfigured policy, can lead to substantial financial losses from business interruption, manual recovery efforts and loss of reputation.

Solution Overview

The Lenovo and provide an integrated solution for simple, reliable, and robust data resilience of all cloud, virtual, and physical workloads. This integrated solution directly addresses the challenges of modernization and hybrid-cloud data management.

- Data Portability: Veeam provides broad hypervisor support to help effortlessly move workloads across clouds, hypervisors, and storage.
- **Unified Management:** Veeam Data Platform provides a centralized console to manage secure backup, replication, and testing across different platforms, reducing manual effort and risk.
- Seamless Integration with HCI: The solution is fully integrated with Lenovo's HCI platforms,
 offering agentless, API-driven backup for VMware, Nutanix AHV, and Azure Stack HCI environments.
 For VMware, vSAN-aware "smart logic" optimizes data movement, while Nutanix AHV integration
 allows for full VM and item-level recovery from snapshots and backups.
- Verified Recovery and Resilience: Veeam's SureBackup capability allows organizations to
 automatically test and verify the recoverability of VMs before a cutover, ensuring a clean and
 bootable state. For enhanced cyber resilience, solutions can be configured with immutable backups
 to protect against ransomware.

Solution Components

The solutions are built on a foundation of qualified Lenovo hardware and Veeam software through the Veeam Ready qualification process:

• Compute:

- Lenovo ThinkSystem SR650 V3: A versatile server used for Veeam backup and recovery operations such as: Veeam Backup Console, Veeam Backup Repository and hardened immutable repository.
- **Lenovo ThinkSystem SR630 V3:** Used as a Veeam Backup Console in scalable solutions with external storage.

Hyperconverged Platforms:

- Lenovo ThinkAgile HX Series: For Nutanix environments, providing a scalable and highperformance foundation.
- **Lenovo ThinkAgile VX Series:** For VMware environments, fully integrated with Veeam for agentless backup.
- Lenovo ThinkAgile MX Series: For Microsoft Azure Stack HCI workloads.

Storage:

- **Lenovo ThinkSystem DE Storage Arrays:** Used as a high-performance backup storage target and Scale-out Backup Repository (SOBR) and hardened backup repository.
- Lenovo ThinkSystem Storage Arrays: Provides unified storage for backup and immutable repositories. Includes ThinkSystem DM and DG Storage Arrays.

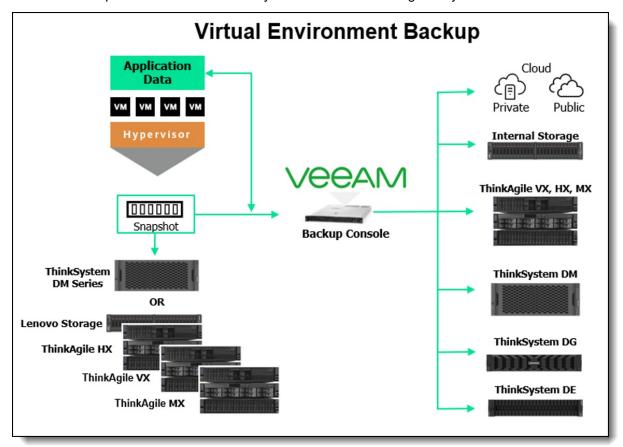


Figure 1. Veeam's Virtual Environment

Pre-configured Solutions

Lenovo offers pre-configured and tested solutions to simplify deployment for environments ranging from 10 to 160 VMs.

Small Solution

This is a Veeam Backup Server and internal storage. Based on the Lenovo ThinkSystem SR650 V3 server.

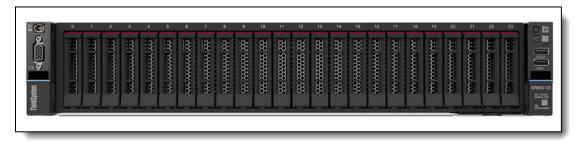


Figure 2. Backup Server SR650 V3

The following table lists the small solution specifications.

Table 1. Small solution

VM Backup	Storage Capacity	Backup Console	Storage
10 to 15 VMs	16 TB	1 x SR650 V3	Internal
20 to 30 VMs	32 TB	1 x SR650 V3	Internal
50 to 60 VMs	48 TB	1 x SR650 V3	Internal

Medium Solution

This is a Veeam Backup Server and DE Series Storage. Based on the Lenovo ThinkSystem SR630 V3 server and ThinkSystem DE4000H.

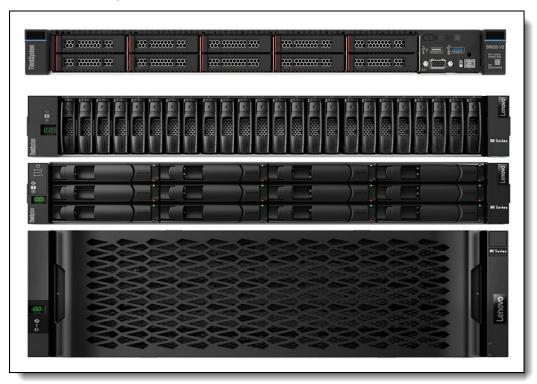


Figure 3. Lenovo ThinkSystem SR630 V3 and ThinkSystem DE4000H

The following table lists the medium solution specifications.

Table 2. Medium solution

VM Backup	Storage Capacity	Backup Console	Storage
50 to 60 VMs	48 TB	1 x SR630 V3	DE4000H
90 to 100 VMs	92 TB	1 x SR630 V3	DE4000H
140 to 160 VMs	140 TB	1 x SR630 V3	DE4000H

Secure, Simple, Scalable with Lenovo and Veeam

Through a strong integrated partnership, Lenovo and Veeam deliver a unified, modern backup and recovery solution that combines Veeam's secure data resilience software with high-performance Lenovo hardware that empowers customers to minimize downtime, recover any workload anywhere, and helps ensure business continuity with confidence and peace of mind.

- **Multi-Cloud Support:** This allows you to protect your data no matter where it resides, whether it be private, public, or hybrid cloud environments. This ensures that your data is secure and can be accessed at any time.
- Infrastructure Modernization: Enables seamless migration and future-ready performance with Lenovo ThinkAgile and ThinkSystem platforms.
- **Unified Protection:** Provides a single platform for Microsoft, VMware, Nutanix, cloud, and physical workloads, simplifying operations and reducing complexity.
- **Verified Recovery and Resilience:** Ensures clean, bootable VMs with SureBackup and protects against ransomware with immutable backups.
- **Operational Efficiency:** Reduces manual effort and risk through a centralized management console and standardized policies.
- Seamless Integration with Existing Infrastructure: To ensures that you can easily integrate Lenovo and Veeam into your existing IT environment
- Scalability for Growing Businesses: Easy to scale data protection and recovery operations

For More Information

Lenovo provides a range of certified systems and reference architectures for Veeam solutions, including:

- Reference Architecture: Lenovo Backup Solution with ThinkSystem DE/DM/DG Storage and Veeam for ThinkAgile and ThinkSystem Platforms
- TruScale Backup with Veeam
- Lenovo Preconfigured Solutions for Veeam
- Lenovo has thoroughly tested numerous systems as backup targets for Veeam solutions. This
 certification confirms that these systems have been validated to meet or exceed both functional and
 performance requirements for backup and restore operations

• Certified Systems:

- Lenovo ThinkAgile VX Series Backup Target Disk DAS
- Lenovo ThinkSystem SR630 V3 Hardened Repository & Immutability
- Lenovo ThinkSystem SR650 V3 Hardened Repository & Immutability
- Lenovo ThinkSystem DE Storage Arrays Veeam Backup & Replication
- Lenovo ThinkSystem DM Storage Arrays Veeam Backup & Replication 12
- Lenovo ThinkSystem DM Storage Arrays Veeam Kasten for Kubernetes 7
- Additional Lenovo Certifications reference link here

• Take the Next Step:

- Ready to enhance your data resiliency? Contact your Lenovo sales representative or authorized channel partner to:
 - Receive more information tailored to your environment
 - Schedule a live demonstration
 - Arrange a remote proof of concept
 - For additional details, you can also explore the Lenovo and Veeam partnership web page and find more on Veeam's solutions at Veeam.com

Author

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Related product families

Product families related to this document are the following:

- DE Series Storage
- ThinkSystem SR630 V3 Server
- ThinkSystem SR650 V3 Server

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This document, LP2280, was created or updated on August 14, 2025.

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