Commvault HyperScale Edge with ThinkSystem SR630 V3 Enterprise-grade Data Protection for Remote Sites/Securing the Edge

Solution Brief

The Challenge

Distributed enterprises struggle to protect data across remote locations. Edge sites and small businesses face distinct obstacles:

- Limited IT Resources: Remote sites lack dedicated IT staff, making complex backup infrastructure difficult to manage and increasing risk of misconfigurations.

- Ransomware Vulnerability: Edge locations are prime targets for attacks due to weaker security postures and lack of immutable storage and rapid recovery capabilities.

- Unpredictable Growth: Data grows exponentially, forcing difficult choices between costly over provisioning or risky under-provisioning.

- Inconsistent Protection: Managing multiple backup solutions creates policy gaps, visibility challenges, and compliance risks.

The Joint Solution: Enterprise Data Protection at the Edge

Commvault and Lenovo deliver a purpose-built solution that brings enterprise-grade data protection to the edge without complexity. By deploying Commvault HyperScale Edge software on Lenovo ThinkSystem SR630 V3 servers, customers receive a pre validated, ready-to-deploy appliance that combines comprehensive backup, recovery, and security capabilities in a single, cost-optimized platform.

The Lenovo ThinkSystem SR630 V3 servers are a powerhouse, designed for versatility, capacity, and performance. Built on the 5th generation Intel Xeon Scalable processor family, it offers exceptional computing power for a wide range of workloads. The server's modular design allows organizations to customize and scale their infrastructure according to evolving business requirements.

- **Performance**: Equipped with the latest Intel® Xeon® processors, the ThinkSystem SR630 V3 offers high-performance computing capabilities, accommodating resource-intensive tasks effortlessly. 5th Gen Intel® Xeon® Scalable Processors enable 2.3x increase in virtual machine*

- **Scalability**: A modular design allows organizations to scale computing, storage, and networking resources independently, ensuring flexibility and future-proofing infrastructure investments.

- **Reliability**: Lenovo's reputation for reliability is embedded in the SR630 V3 providing continuous operations and minimizing downtime.

- **Security**: Advanced security features, including hardware-based encryption and firmware resilience, safeguard sensitive data against evolving cyber threats.

- **Management**: Lenovo XClarity Administrator offers proactive system management, optimizing performance and simplifying day-to-day operations.

- **Efficiency:** Improved energy efficiency with 77% better performance per watt*

* When comparing SR630 V3 to the SR630

Commvault HyperScale Edge is specifically engineered for remote offices, branch locations, and small-to-medium businesses requiring robust data protection for workloads up to 200TB. Built on Commvault's cyber-resilient platform, it provides autonomous backup and recovery capabilities with immutable storage, AI-powered anomaly detection, and a CIS Level 1 hardened operating system. The solution is delivered as a complete software image that simplifies deployment and ongoing management, making it ideal for locations with limited IT expertise.

Commvault HyperScale Edge Architecture Overview

HyperScale Edge operates as an individual storage pool that connects to a central CommServe instance (either on-premises or cloud-based), creating a distributed yet unified data protection ecosystem. Each appliance functions independently, providing fast local backups and restores while enabling flexible data movement to cloud or central sites through AuxCopy functionality.

Key Architectural Components:

- **Local Storage Pool**: Each HyperScale Edge node creates a dedicated storage pool optimized for backup workloads, utilizing hardware RAID configurations for data protection and performance.

- **Autonomous Backup Engine**: Built-in intelligence automates backup policies, schedules, and retention management, reducing the need for manual intervention.

- **Distributed Management**: Individual nodes connect to a centralized CommServe for unified policy management, monitoring, and reporting across all edge locations.

- **Flexible Data Mobility**: Organizations can keep data local for fast recovery while optionally replicating it to cloud or central repositories for long-term retention or disaster recovery.

ThinkSystem SR630 V3 general specifications

The following table lists the key specifications for the SR630 V3. For a complete list of detailed specifications, please consult the Lenovo ThinkSystem SR630 V3 Product Guide.

The following figure shows the SR630 V3.

Figure 1. Lenovo ThinkSystem SR630 V3

Table 1. ThinkSystem SR630 V3 general specifications

Specification	SR630 V3 functionality
Form Factor/Height	1U Rack Server
Processor	One or two 5th Gen Intel Xeon Scalable processors (formerly codenamed "Emerald Rapids"), or one or two 4th Gen Intel Xeon Scalable processors (formerly codenamed "Sapphire Rapids"). Supports processors up to 64 cores, core speeds of up to 3.9 GHz, and TDP ratings of up to 385 W.
Memory	Up to 32 DIMMs (16 per processor), 2 DIMMs per channel No support for Intel Optane Persistent Memory
Expansion Slots	Up to 2x PCIe Gen 5 slots + 1x PCIe Gen 4 slot (support up to 3x 75W GPUs), Supports either 3x slots (all LP) or 2x slots (LP + FH), 1x OCP 3.0 slot, either rear or front, Supports a RAID/HBA in CFF form factor (does not occupy a PCIe slot)
GPU	Supports up to 3x single-wide GPUs
Network Interface	OCP 3.0 slot with PCIe Gen 5 x16 interface (rear) or PCIe Gen4 x16 interface (front), Additional PCIe adapters supported
Ports	**Front**: 1x USB 3.2 G1 (5 Gb/s) port, 1x USB 2.0 port (also for XCC local management), External diagnostics port, optional VGA port. **Rear**: 3x USB 3.2 G1 (5 Gb/s) ports, 1x VGA video port, 1x RJ-45 1GbE systems management port for XCC remote management. Optional DB-9 COM serial port (installs in slot 3). Optional second RJ-45 1GbE systems management port for XCC remote management (installed in OCP adapter slot). **Internal**: 1x USB 3.2 G1 connector for operating system or license key purposes
HBA/RAID Support	8-port and 16-port RAID adapters with up to 8GB flash, Support for Lenovo and Broadcom adapters, Support for PCIe or Internal cabled (CFF) form factor adapters, Support for NVMe drives connected to 940 RAID adapters (Tri-Mode),Storage HBAs available, PCIe 3.0 and PCIe 4.0 adapter choices with support for Gen 5 adapters when available. **Note**: Commvault does not support VROC configurations, so you must include a RAID card for the boot disks
Power	750W, 1100W, 1800W AC Platinum/Titanium Hot Plug PSU, 1100W -48VDC Platinum general support
Management and security	Integrated XClarity Controller 2
OS Support	Microsoft Windows Server, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, VMware ESXi, Ubuntu Server. See the Operating system support section for specifics.

Key Benefits of the Integrated Solution

The combined solution of Lenovo ThinkSystem SR630 V3 servers with Commvault HyperScale Edge delivers a modern, edge-ready platform for secure, efficient, and scalable data protection. It merges Lenovo's high-performance infrastructure with Commvault's cyber resilience capabilities to simplify backup, recovery, and governance across distributed environments.

Key Features and Benefits:

- **Consolidated Edge Protection**: HyperScale Edge unifies local backup, fast restores, and immutable retention on a single Linux node, leveraging hardware RAID for resiliency.

- **Cost-Optimized**: Right-sized configurations, superior energy efficiency, and flexible licensing models reduce total cost of ownership; FlexBOM approach balances capacity, performance, and budget.

- **Enterprise Security**: Multi-layered protection with hardware-based encryption, immutable backups, AI-powered threat detection, and hardened OS, with no additional tools required.

- **Exceptional Performance**: 5th gen Intel Xeon processors enable fast backup operations and rapid restores; local storage eliminates slow remote backup windows.

- **Flexible Scalability**: Modular architecture enables incremental capacity growth; add nodes as business expands without costly replacements.

- **Centralized Control**: Unified management through XClarity Administrator and Commvault Command Center provides visibility across all locations with consistent policies.

- **Proven Reliability**: Continuous operations with redundant components, proactive monitoring, and comprehensive remote management capabilities.

Use Cases:

- **Retail branches**: resilient POS, rapid in-store recovery, nightly replication to core.

- **Finance**: localized vaulting with immutable offsite copies.

- **Manufacturing/OT**: protect workcell VMs and historians with minimal floor-space.

- **Healthcare**: PHI-compliant retention with fast restore at the point of care.

- **Education campuses**: per-site protection with centralized oversight.

- **Logistics hubs**: high-ingest backup for WMS/SCADA with quick local restore.

Bill of Materials for Commvault's HyperScale Edge certified platform SR630 V3

The following table lists the bill of materials (BOM) for the ThinkSystem SR630 V3 and Commvault Cloud Hyperscale X solution.

Table 2. Bill of materials (BOM) for the ThinkSystem SR630 V3 and Commvault HyperScale Edge

Component	Feature Code	Description	Qty
MTM	7D73CTO1WW	ThinkSystem SR630 V3	1
Chassis	BLK3	ThinkSystem V3 1U 4x3.5" Chassis	1
	B8L3	ThinkSystem 1U/2U 4x3.5" SAS/SATA Backplane	1
	BDY6	1U 2x2.5" NVMe Rear Backplane	1
	BLKE	1U x16 Riser1 PCIe Gen4 with Rear drive	1
	BH9M	ThinkSystem V3 1U Performance Fan Option Kit v2	6
Processors select one, Quantity: 1			
5th Gen	BYW4	Xeon Silver 4510 12C 150W 2.4GHz w/o Fan	1
	BYVS	Xeon Silver 4510T 12C 115W 2.0GHz w/o Fan	1
	BYVP	Xeon Silver 4514Y 16C 150W 2.0GHz w/o Fan	1
	BYW6	Xeon Silver 4516Y+ 24C 185W 2.2GHz w/o Fan	1
	BYW7	Xeon Gold 5520+ 28C 205W 2.2GHz w/o Fan	1
	BYVX	Xeon Gold 6526Y 16C 195W 2.8GHz w/o Fan	1
	BYVY	Xeon Gold 6542Y 24C 250W 2.9GHz w/o Fan	1
	BYW1	Xeon Gold 6544Y 16C 270W 3.6GHz w/o Fan	1
Memory Required to configure 64GB memory			
5th Gen	BNF6	32GB TruDDR5 4800MHz (1Rx4) 10x4 RDIMM	2
	BNF9	64GB TruDDR5 4800MHz (2Rx4) 10x4 RDIMM	1
	BKTL	16GB TruDDR5 4800MHz (1Rx8) RDIMM	4
	BKTM	32GB TruDDR5 4800MHz (2Rx8) RDIMM	2
	BWHW	32GB TruDDR5 5600MHz (1Rx4) 10x4 RDIMM	2
	BWHS	64GB TruDDR5 5600MHz (2Rx4) 10x4 RDIMM	1
	BX8Y	48GB TruDDR5 5600MHz (1Rx4) 10x4 RDIMM	2
	BWJE	16GB TruDDR5 5600MHz (1Rx8) RDIMM	4
	BWJC	32GB TruDDR5 5600MHz (2Rx8) RDIMM	2
	BWSL	24GB TruDDR5 5600MHz (1Rx8) RDIMM	4
	BWJD	48GB TruDDR5 5600MHz (2Rx8) RDIMM	2
Mandatory Raid Controller. Select one.			
Qty 1	BM51	440-8i SAS/SATA PCIe Gen4 12Gb HBA	1
	B8P9	M.2 NVMe 2-Bay RAID Adapter	1
	BTTY	M.2 NVMe	1
Disk/Capacity Options. Select one. QTYs are mandatory			

Component	Feature Code	Description	Qty
Mandatory, Qty 3 to 4	AUU6	3.5" 4TB 7.2K SAS 12Gb Hot Swap 512e HDD v2	3 to 4
	B0YR	3.5" 8TB 7.2K SAS 12Gb Hot Swap 512e HDD	3 to 4
	AUUG	3.5" 10TB 7.2K SAS 12Gb Hot Swap 512e HDD	3 to 4
	B117	3.5" 12TB 7.2K SAS 12Gb Hot Swap 512e HDD	3 to 4
	B496	3.5" 14TB 7.2K SAS 12Gb Hot Swap 512e HDD	3 to 4
	B7EZ	3.5" 16TB 7.2K SAS 12Gb Hot Swap 512e HDD	3 to 4
	BCFP	3.5" 18TB 7.2K SAS 12Gb Hot Swap 512e HDD	3 to 4
	BPKU	3.5" 20TB 7.2K SAS 12Gb Hot Swap 512e HDD	3 to 4
NVMe drive, select one.			
Mandatory, Qty 1	C2BW	2.5" U.3 7500 MAX 3.2TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	1
M.2 drive, select one.			
Mandatory, Qty 2	BXMH	M.2 PM9A3 960GB Read Intensive NVMe PCIe 4.0 x4 NHS SSD	2
	BKSR	M.2 7450 PRO 960GB Read Intensive NVMe PCIe 4.0 x4 NHS SSD	2
Ethernet Adapter, select one.			
Qty 1	BPPW	Broadcom 57504 10/25GbE SFP28 4-Port OCP Ethernet Adapter	1
	B5ST	Broadcom 57416 10GBASE-T 2-port OCP Ethernet Adapter	1
	BCD5	Intel X710-T2L 10GBASE-T 2-port OCP Ethernet Adapter	1
	BCD4	Intel E810-DA2 10/25GbE SFP28 2-Port OCP Ethernet Adapter	1
	BN2T	Broadcom 57414 10/25GbE SFP28 2-port OCP Ethernet Adapter	1
	BE4T	Mellanox ConnectX-6 Lx 10/25GbE SFP28 2-Port OCP Ethernet Adapter	1
Power Supply. Select one.			
Qty 2	BNFG	750W 230V/115V Platinum Hot-Swap Gen2 Power Supply v3	2
	BNFH	1100W 230V/115V Platinum Hot-Swap Gen2 Power Supply v3	2
	BLKH	1100W 230V Titanium Hot-Swap Gen2 Power Supply	2
	BMUF	1800W 230V Platinum Hot-Swap Gen2 Power Supply	2
	BPK9	1800W 230V Titanium Hot-Swap Gen2 Power Supply	2

Configuration and Approval Guidelines

1. **No Modifications Without Approval**
   Changes to components, quantities, or feature codes are strictly prohibited unless explicitly approved by both **Lenovo** and **Commvault**.

2. **Mandatory Technical Validation**
   All configurations must undergo technical validation and receive approval from both **Lenovo** and **Commvault** prior to implementation.

3. **Right to Modify**
   Lenovo reserves the right to modify or replace components based on availability, product updates, re-certification requirements, or other operational considerations.

Why Commvault and Lenovo?

The partnership delivers pre-validated designs thoroughly tested on SR630 V3 hardware, eliminating integration uncertainty. Organizations benefit from coordinated support, global reach with local service capabilities, and continuous innovation that keeps edge protection current. The combination of 5th generation Intel Xeon processors and Commvault's optimized software delivers exceptional performance with faster backup windows and quicker recovery times.

A Partnership Built on Trust

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

Key Features and Benefits:

- **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.

For more information, visit these resources:

- Commvault HyperScale X page:
  https://www.commvault.com/supported-technologies/lenovo
- Lenovo Data Center Solutions page:
  https://www.lenovo.com/us/en/resources/data-center-solutions/solution-brief-documents/commvault-cyberthreat-protection-and-recovery-solution-brief/
- Article, "Lenovo and Commvault Deliver Better Data Protection and Recovery Solutions Together"
  https://lenovopress.lenovo.com/lp1831-lenovo-and-commvault-data-protection-and-recovery-solutions
- A Modern Approach to Data Protection with Lenovo ThinkSystem HS350X V3 Storage Server and Commvault Cloud HyperScale X Software
  https://lenovopress.lenovo.com/lp1961-a-modern-approach-to-data-protection-commvault-cloud-hyperscale-x
- Powering Scale-Out Cyber Resilience with Lenovo ThinkSystem SR650 V3 Server and Commvault Cloud HyperScale X Software
  https://lenovopress.lenovo.com/lp1922-powering-scale-out-cyber-resilience-commvault-cloud-hyperscale-x
- Simplified, Scalable, and Resilient Hyperconverged Data Protection with Commvault HyperScale X and Lenovo
  https://lenovopress.lenovo.com/lp2324-hyperconverged-data-protection-with-commvault-hyperscale-x-and-lenovo
- ThinkSystem SR630 V3 product page
  https://www.lenovo.com/us/en/p/racks/len21ts0012
- ThinkSystem SR630 V3 datasheet
  https://lenovopress.com/DS0142
- Interactive 3D Tour SR630 V3
  https://lenovopress.lenovo.com/lp1620

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Related product families

Product families related to this document are the following:

- ThinkSystem SR630 V3 Server

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