

Lumen Validated Design for Cyber Resilience with Commvault

End-to-end Cyber Recovery

Protecting critical data from cyber threats is no longer just an IT priority, it's a business imperative. As recovery demands grow across increasingly complex hybrid environments, enterprises need an integrated cyber resilience architecture that connects secure networking, resilient storage and policy-driven recovery into a more complete path to business continuity.

Lumen Validated Design (LVD) for Cyber Resilience with Commvault empowers organizations to maintain business continuity by enabling rapid, secure recovery across hybrid environments. This resilient architecture brings together secure connectivity and policy-driven recovery workflows to reinforce security posture and accelerate recovery. With storage flexibility, it provides a more complete, end-to-end architecture to help protect data across edge, core and cloud environments.

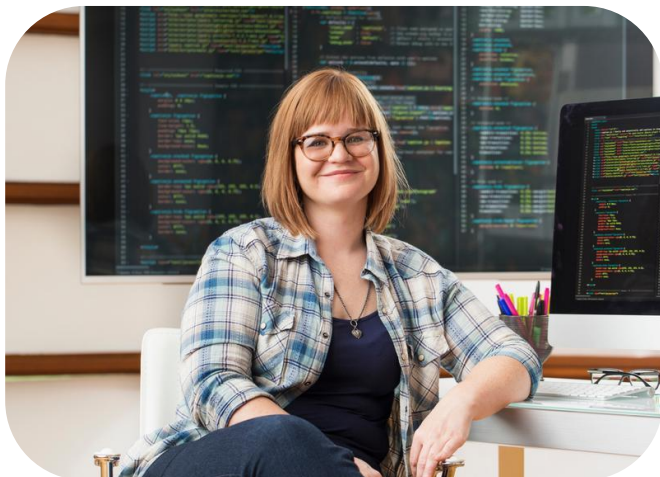
Built and validated in Lumen's operational environment, this reference architecture is designed to deliver consistent, repeatable recovery outcomes that help reduce deployment risk, optimize costs, and accelerate time-to-value. By using secure network infrastructure from Lumen, recovery orchestration from Commvault, and storage technology powered by NetApp, organizations can confidently adopt pre-architected, performance-optimized strategies tailored to their specific needs, streamlining deployment and strengthening business continuity.

The Lumen Network is the Foundation for Cyber Resiliency

Far beyond a transport layer, the Lumen Network serves as the backbone for policy-driven connectivity, enabling real-time backup and recovery across hybrid environments.

Operating the #1 peered global network¹, Lumen provides direct paths to major cloud providers, enabling seamless, secure recovery and optimized performance.

Lumen's high-throughput network acts as a secure and robust recovery path, enabling localized bandwidth routing, threat detection at the edge, and policy-driven orchestration for zero-trust recovery.



¹ CAIDA, AS Rank, April 2025

Accelerating Recovery and Minimizing Risk at Scale

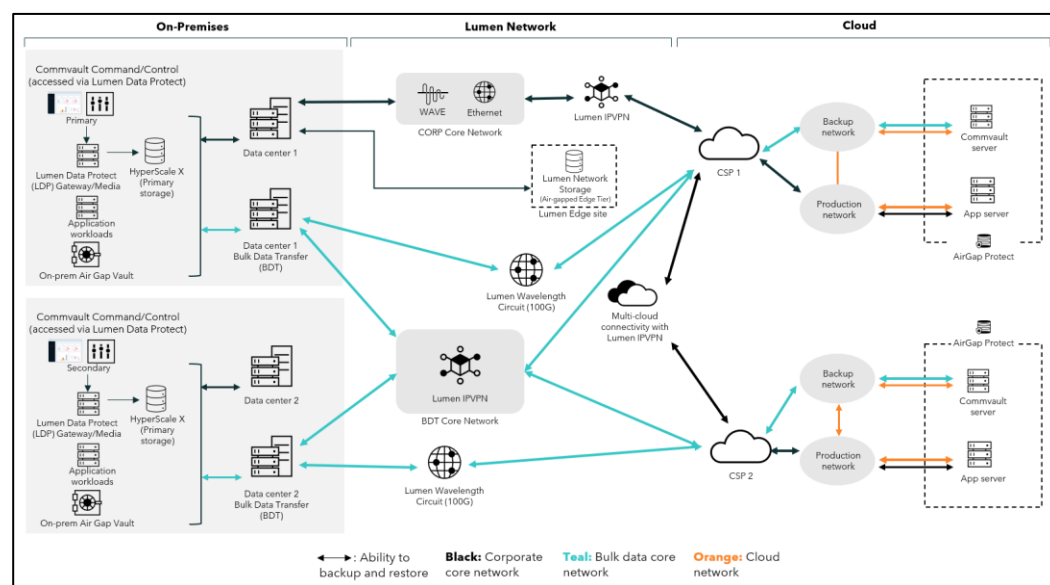
- **Accelerate Time-to-Value** with pre-validated, production-tested designs that help reduce deployment risk and speed implementation.
- **Reduce Costs** through tool consolidation, dynamic bandwidth scaling, and edge-optimized recovery that minimize data transfer and cloud egress fees.
- **Strengthen Cyber Resilience** using air-gapped vaults, immutable backups, and multi-tiered recovery workflows to help ensure clean recovery and business continuity.
- **Expand Storage Flexibility** with a resilient storage layer that supports immutable, air-gapped backup copies and helps protect data across edge, core and cloud environments.

Lumen Validated Design for Cyber Resilience with Commvault

Lumen and Commvault bring together network innovation and advanced data protection to deliver secure, scalable recovery across hybrid environments. With edge-optimized connectivity, policy-driven backup and recovery workflows powered by Commvault, and an architecture designed to support multiple storage implementations, this validated design simplifies operations and enables business continuity.

Validation: Lumen as the Operational Environment

Lumen uses Commvault to protect its own production environments, validating the solution through firsthand operational experience and reinforcing market credibility.



Outcomes achieved:

~90% consolidation of legacy backup platforms, reducing complexity and streamlining operations across hybrid environments

\$3.5M of annual savings by reducing licensing and other operational costs

Reduced recovery time objectives (**RTO**)

Reduced administrative overhead by consolidating backup operations into a single control plane

Products Included:

- **Lumen® Wavelength Solutions** deliver secure, high-performance data transport via 100G circuits, supporting bulk transfers, low-latency recovery, and dedicated bandwidth for vaulting and replication.
- **Lumen® IP VPN** routes all backup traffic, helping ensure secure, consistent multi-cloud connectivity.
- Secure and high-performance connectivity, especially with **Lumen® Cloud Connect** service, is used for non-Bulk Data Transfer (BDT) traffic across the Lumen core IP VPN routing platform.
- **Lumen® Data Protect (LDP) with Commvault Cloud** to enable the following features included in the design:
 - Commvault Cloud Air Gap Protect
 - Commvault Cloud Backup and Recovery
 - Commvault Cloud Risk Analysis.
- **Lumen® Network Storage powered by NetApp** supports flexible storage for additional backup copies, including air-gapped configurations, while helping maintain consistent recovery behavior.
- **Commvault HyperScale X Reference Architecture***



Commvault is a trusted leader in data protection and cyber resilience, delivering air-gapped, immutable backups and automated workflows to defend against ransomware and ensure clean recovery. Its unified management platform streamlines operations with centralized policies and anomaly detection, while integrated threat signals enable early threat identification and validated recovery points.

* Service available via SOW

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Cyber Resiliency Solution with Lumen

Cyber threats demand a strategy that goes beyond point solutions - one that unifies protection, recovery, and resilience into a single, integrated approach. Lumen has designed a comprehensive, end-to-end solution to enable flexible and secure connectivity, storage, and data protection. This Lumen Validated Design represents one proven architecture within that approach, with additional capabilities to address diverse customer needs – **When you need it, where you need it.**

Secure, Dynamic Networking

Lumen NaaS and Black Lotus Labs

Power protection and response operation

- Port connectivity
- On-demand networking
- Integrated cybersecurity
- Threat repulsion
- Network visibility

Data Backup and Recovery

Lumen Data Protect with Commvault Cloud

Enable rapid recovery of data and cloud apps

- Immutable and isolated backups
- Layered security
- Rapid app rebuilds
- Cleanroom recoveries
- Forest-level recoveries

Threat-Aware Storage

Lumen Network Storage with NetApp

Help maintain pristine, governable, and accessible data copies

- Immutable snapshots
- BlueXP orchestration
- Data replication
- Orchestration and failover
- Data classification and governance

Lumen Data Protect with Commvault Cloud

Protect and recover your critical data quickly, simply, and without the risk and complexity of traditional backup. Lumen Data Protect is a fully-managed service that delivers immutable, encrypted, air-gapped backups across hybrid and multi-cloud environments. With rapid deployment, intuitive self-service controls, and flexible usage-based pricing, this is designed to keep operations running, and scale confidently.

Lumen Data Protect integrates Commvault's enterprise-grade backup and recovery capabilities within the Lumen Validated Design framework, delivering simplified, scalable protection for today's dynamic IT environments.

Why Lumen?

Lumen is the trusted network for AI. Industry leaders rely on our infrastructure to power intelligent, high-performance solutions across edge, cloud, and hybrid environments. Lumen Validated Designs build on this foundation, integrating our broad service portfolio with best-in-class technologies from leading partners. With deeply-peered global connectivity, embedded threat intelligence from Black Lotus Labs, and expert support, Lumen helps you reduce complexity, accelerate deployment, and deliver outcomes with confidence.