

# Protect your OpenStack data while optimizing cost, and resiliency

COHESITY

TRILIO 

## Key Benefits

- Recover in minutes or hours instead of days and weeks
- Recover applications, metadata and the data
- Predictive and improved RTO and RPO, irrespective of the size and the complexity of your OpenStack deployment
- Lower TCO through tenant driven self-service capabilities and data reduction up to 96x or more
- Meet SLAs and comply with regulatory mandates for data privacy and retention
- Protect against ransomware
- Mitigate risk
- Improve developer productivity

As OpenStack deployment sizes grow, reducing the cost and complexity of data management and infrastructure, along with mitigating the impact of security threats, quickly become top priorities. Do-it-yourself (DIY) solutions like scripting are time and resource intensive, and may not provide reliable recovery. Furthermore, organizations run the risk of losing mindshare and knowledge transfer if an employee or team leaves. Legacy solutions lack the flexibility, scale and efficiency required by enterprises that leverage cloud architectures. These approaches are risky, time consuming, and unreliable. Data protection solutions today must natively integrate with cloud architectures in order to support the most common business-critical use cases, but legacy backup vendors are reluctant to overhaul their existing agent-based models in favor of a cloud-native approach—which means that their customers are forced to settle for disruptive, solutions that are not operationally efficient and costly.

## Why Trilio and Cohesity for Modern, Scalable OpenStack Data Protection?

Without a purpose-built solution to manage both point-in-time data and metadata, you are risking the ability to control costs, recover rapidly and maintain compliance.

Cohesity and Trilio provide a joint solution for reliable, cost-effective, protection and recovery of your OpenStack environment. Easily and seamlessly scale and break down the walls of siloed environments by allowing applications and data to move between them.

Trilio's Intelligent Recovery Platform was designed as a native OpenStack service to provide tenant driven policy-based data protection. Trilio's cloud-native design can dramatically reduce the amount of time your entire team spends on restoration activities. For example, you can restore entire workloads in one click. Trilio can protect and intelligently recover thousands of applications spanning a global distributed architecture while capturing and restoring variations of network and storage configurations. IT managers, Cloud Architects and DevOps Engineers leverage Trilio for backup and recovery, migrations, disaster recovery, ransomware protection and application mobility.

When combined with Cohesity SmartFiles, Trilio is able to consolidate all data infrastructure onto one unified and efficient multicloud data platform that modernizes and simplifies data and application management, resiliency, privacy, and control by providing one interface for managing and securing data. SmartFiles is a software-defined, data-centric, unified file and object solution for

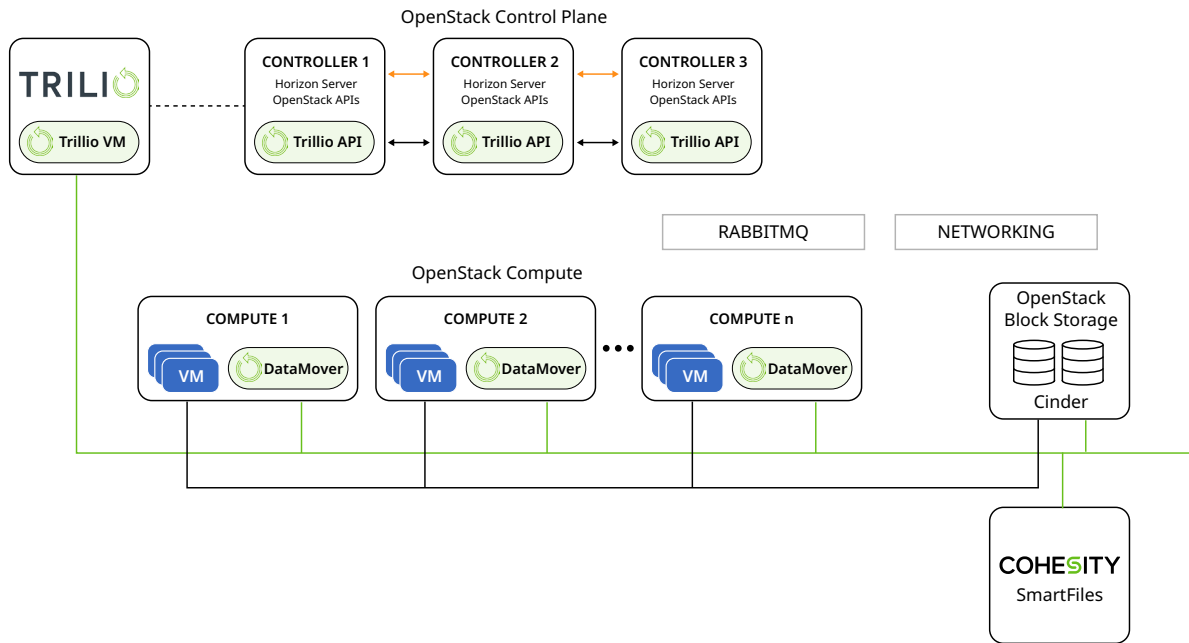


Figure 1: Modern, scalable OpenStack data protection with Cohesity and Trilio

the hybrid cloud with native S3, NFS, and SMB protocol support. It simplifies long-term unstructured data retention, and provides cost-effective, secure, and immutable storage for your Trilio datasets. Organizations are uniquely empowered to efficiently manage data at scale, with dramatic space efficiency for significant cost of ownership savings. Plus, the joint solution enables customers to use cloud hyperscalers, like Amazon AWS, for long-term archival and disaster recovery—and to take advantage of hybrid cloud scale.

## Joint Solution Features and Capabilities

- Enterprise Class Data Protection with Broad Ecosystem Support:** Trilio’s software-only solution natively integrates into your OpenStack cloud to protect application data and metadata. It allows application consistent backups, restore transforms, policy-based management and efficient data management, and can continuously stage data in multiple clouds for near-instantaneous recovery.
- Seamless Integration:** Installed with your favorite DevOps tools, integrate Trilio with OpenStack at every available point, including block storage (Cinder), identity management (Keystone), compute resources (Nova), and usability (Horizon). Trilio integrates with SmartFiles using the S3 or NFS industry-standard APIs to provide persistent, simple, reliable data management without the need for caching devices. Data is written to SmartFiles in native format, so you can read, analyze, search and re-use it to maximize the potential of your data.
- Lower Costs for Protection and Recovery:** When Trilio data is consolidated on SmartFiles, you can reduce hardware storage requirements by as much as 96x or more through data

deduplication, compression, small file optimization, and dedupe across data center volumes. Storage costs and performance can be further optimized by intelligently moving data to the most appropriate locations or clouds.

- Hybrid Cloud Flexibility:** Achieve massive, seamless scale for your Trilio data with software-defined simplicity and broad flexibility to deploy SmartFiles on-premises, at the edge, or in your cloud of choice. Manage all your data with a singular management pane. Within the UI, you can also create policies to tier, archive or replicate data across one or more clouds.
- Robust Cyber Threat and Ransomware Protection:** Utilizing existing identity management tools and OpenStack APIs to distribute management capabilities to all provisioned users of your cloud, Trilio provides cloud and backup administrators with complete control, visibility, and oversight of their OpenStack operations in a single view. Cohesity SmartFiles takes advantage of Zero-Trust principles to provide an easy to manage, multi-layered, enterprise security approach to prevent, detect, and analyze threats to your data. Limit unnecessary data access and prevent unauthorized data addition, modification, and deletion with role-based access control. Prevent threats and maintain compliance with an immutable file system, encryption on the fly or at rest, multi-factor (MFA) and quorum authentication, and DataLock (WORM). Integrated anti-virus allows detection of infected files and prevents files from being compromised. Built-in analytics features allow you to observe user and behavior analytics for security and compliance reasons. The Cohesity FortKnox integrated SaaS offering provides an additional layer of protection against ransomware and other cybersecurity threats by placing immutable copies of data in a Cohesity-managed cloud vault via a virtual air gap.

## Optimize Return on Investment

Cohesity SmartFiles is the smartest way to optimize cost, scale and efficiency when protecting OpenStack data with Trilio.

Easily manage, protect, secure, and do more with your data with a singular certified next-level solution. Realize the benefits of your cloud strategy with a production-ready private cloud that lets you be more resilient, reduce costs, simplify and accelerate application and service delivery, while empowering IT teams to support digital initiatives. Dramatic scale, flexibility and operational efficiencies also make managing and monitoring your data, protection policies, procedures, and recoverability easier than ever. And with a powerful, multilayered security approach, your data can be protected from sophisticated cyberthreats now and into the future.

Make your vision for modern unstructured data management a reality with [Cohesity](#)

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