COHESITY

NetBackup DirectIO: Modernizing NetBackup with Cohesity Data Cloud

Enterprises today face escalating threats, expanding data estates, and growing operational complexity. To stay resilient, IT organizations must modernize their data protection without sacrificing the reliability of existing investments.

NetBackup DirectIO, powered by Cohesity Data Cloud, delivers a modern, secure, and scalable foundation for NetBackup environments. By connecting Cohesity NetBackup directly to Cohesity SpanFS®— the same web-scale file system that powers Cohesity's unified data platform—DirectIO will transform your backup infrastructure into a high-performance, cyber-resilient, and AI-ready data foundation.

It enables faster recovery, simplified operations, stronger security, and dramatically lower total cost of ownership—all without workflow disruption or migration.

Key Benefits

- **Unified architecture**
  SpanFS consolidates backup, file, and object storage in one platform.

- **Optimized deduplication**
  Reduces storage and network overhead while improving performance.

- **Zero disruption**
  Integrates seamlessly with existing NetBackup environments.

- **AI-ready foundation**
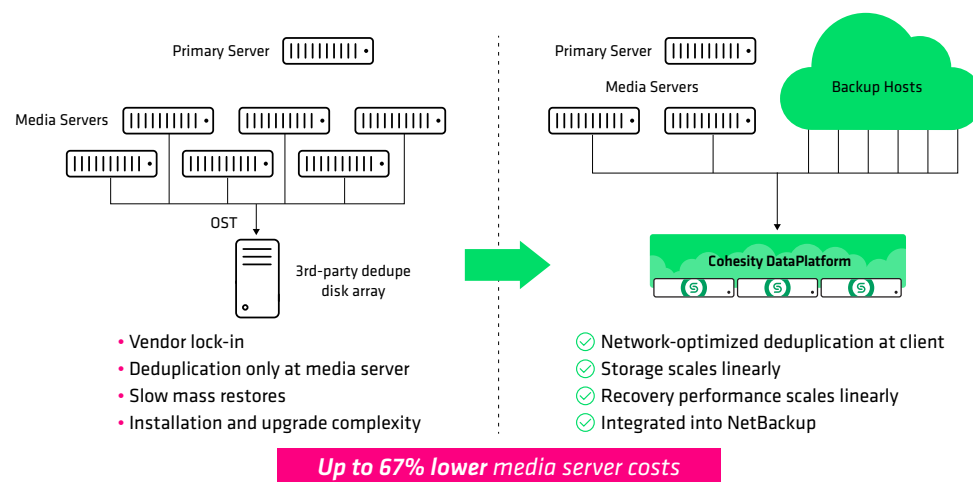 Exposes protected data for analytics and generative AI.

Primary Server

Media Servers

OST

3rd-party dedupe disk array

- Vendor lock-in
- Deduplication only at media server
- Slow mass restores
- Installation and upgrade complexity

Primary Server

Media Servers

Backup Hosts

Cohesity DataPlatform

⊘ Network-optimized deduplication at client
⊘ Storage scales linearly
⊘ Recovery performance scales linearly
⊘ Integrated into NetBackup

Up to 67% lower media server costs

Figure 1: The DirectIO Advantage—high speed recovery, network optimized, lower cost

How it works

Traditional NetBackup deployments rely on OST (OpenStorage Technology) plugins and third-party deduplication arrays, often leading to performance bottlenecks and limited scalability. DirectIO replaces these constraints with a streamlined, next-generation data path built for the Cohesity Data Cloud.

DirectIO modernizes data protection with three integrated layers:

1. **Client deduplication** – Deduplication happens at the source, minimizing network traffic, accelerating backups, and reducing storage costs.

2. **DirectIO protocol** – A Cohesity-optimized evolution of OST adding inline indexing, replication, and SmartFiles views for instant access and secondary data use.

3. **SpanFS File system** – Cohesity's patented, scale-out file system consolidates backup, file, and object storage into one intelligent, immutable data layer. It enables simultaneous access by NetBackup, DataProtect, and Cohesity analytics services—all from a single optimized copy of data.

This integration turns backup data into a live, actionable asset—available for recovery, analysis, and cyber defense at any scale.

Built for enterprise flexibility

DirectIO is designed for large, distributed environments that demand speed, simplicity, and adaptability. It supports a wide range of workloads and deployment configurations:

Supported platforms	Red Hat Enterprise Linux (8.x–9.x) and Windows Server (2016–2025)
Workloads	VMware, Oracle, Windows, and UNIX/Linux
Deployment options	Client Direct or Media Server modes for flexible scaling
Security and resilience	Immutability (WORM), VM granular recovery, and cyber vaulting with FortKnox

Future enhancements include instant recovery for VMware, TLS 1.3, Isolated Recovery Environments (IRE), additional platforms/workloads, and more.

The DirectIO advantage

Seamless modernization – no migration required
An enhanced integration that allows NetBackup to write directly to SpanFS, eliminating legacy storage without workflow disruption.

Enterprise scale and performance
Client-side deduplication and distributed processing enable linear scalability and optimized throughput.

Lower total cost of ownership
Reduce infrastructure costs with fewer media servers, efficient deduplication, and unified operations.

Future-proof intelligence and insight
In the future, you'll be able to leverage Cohesity Gaia and SmartFiles for AI-powered analytics, classification, and enterprise search.

A smarter path to cyber resilience

NetBackup DirectIO redefines what's possible in enterprise data protection. By uniting the reliability of NetBackup with Cohesity's modern data architecture, organizations gain a simpler, smarter, and more secure foundation for the future.

With a single platform for protection, recovery, analytics, and AI, DirectIO transforms backup data from a passive archive into an active source of resilience and insight. Modernize your NetBackup infrastructure today—and turn data protection into a competitive advantage.

Visit cohesity.com/platform/spanfs for more information

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