An AllNVMe Veeam HEXI & N backup target

Why Veeam performance struggles with legacy backup architectures or solutions

Veeam is a leading data protection and backup solution, often used in virtualized environments. While it's reliable and feature-rich, there are several challenges users can face as a result of low performance backup targets:



Performance Bottlenecks: Veeam backup and restore operations can be slow, especially in large-scale environments. In addition, legacy storage infrastructure (SSDs or slower HDDs) often can't keep up with Veeam's demands for high throughput during backup windows.

Storage Overhead: Veeam utilizes snapshot-based backups, which can create temporary storage surges and impact production performance.

Backup Window Management: Compressing data and managing deduplication requires significant I/O operations, making it hard to meet aggressive Recovery Point Objectives (RPOs) and Recovery Time Objectives (RTOs).

Resource Contention: Competing workloads can saturate storage and network resources, leading to degraded performance for both backups and primary applications.

An AllNVMe Veeam HEXI IN backup target

How Hexion's AllNVMe Helps Address These Challenges

NVMe (Non-Volatile Memory Express) offers a high-performance storage interface with dramatically lower latency and higher throughput compared to traditional storage options. Using an all-NVMe architecture, like the one were building at Hexion Data Storage, can significantly mitigate issues experienced by Veeam.



Faster Backup and Restore: NVMe's parallel I/O capabilities ensure faster read/write speeds, reducing backup windows. In addition, high IOPS and low latency mean snapshots are completed quickly, minimizing application impact.

Improved Deduplication and Compression: NVMe provides the necessary performance to run data reduction processes without slowing down primary storage.

Reduced Backup Window Risk: Veeam's incremental backups (using CBT - Changed Block Tracking) benefit from Hexion's low-latency data access, further reducing backup times.

Enhanced Scalability: With NVMe over Fabric (NVMe-oF) or distributed NVMe systems like Hexion, Veeam deployments can scale horizontally while maintaining performance.