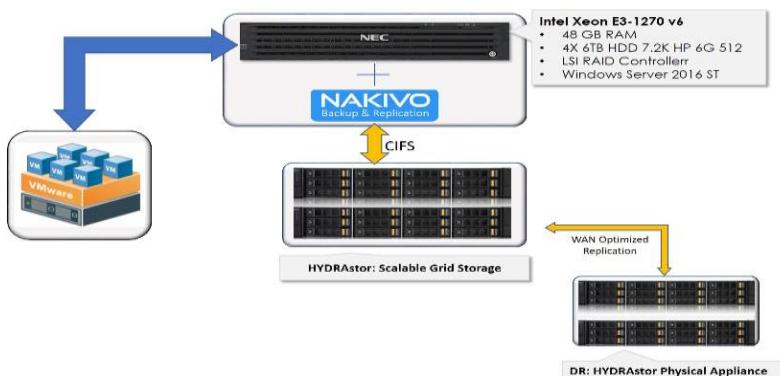


Backup and replication for virtualized environments

Data Protection for Virtual Machines



At a Glance

- Highly Scalable Capacity-optimized Data Protection Solution
- Efficient Backup and Reliable Recovery
- Efficient, flexible data resiliency for growing virtualized environment

Overview

NEC, a leading global IT solution provider, and NAKIVO, an innovative developer of data protection solutions for VMware®, Hyper-V®, and cloud environments delivers fast, reliable and affordable solution for backup, replication and recovery of virtual environments.

By leveraging deduplication features of NEC HYDRAstor® grid storage system and NAKIVO Backup & Replication provides fastest performance possible, and can fully use the bandwidth available in customer environment. Further, HYDRAstor's RepliGrid WAN-optimized Replication ensures only unique data is transferred to the disaster recovery (DR) site, resulting in minimum data transfer and quick VM recovery at the DR site. It also offers in-flight encryption capability to protect data from unauthorized access during transfer across remote sites.

Solution

Highly Scalable Capacity-optimized Data Protection Solution

With the ever growing data growth in virtualized environments, frequent storage infrastructure expansion is becoming more and more significant. NEC HYDRAstor grid storage system and NAKIVO Backup & Replication as a combined solution allow expansion both vertically, by providing more resources to the product, and horizontally by distributing product components within the same location or across multiple locations. HYDRAstor can be expanded and refreshed with no data migration by incorporating intermix of newer generation hardware into the same grid system. HYDRAstor maximizes cost efficiency with DataRedux™ inline global deduplication and compression, as well as high availability and node-level resiliency with erasure-coded data protection. HYDRAstor also provides investment protection with online upgrade/ expansion, as well as in-place technology refresh with intermix of multi-generation nodes within the same grid system. NAKIVO Backup & Replication performs image-based backup of VMware VMs which means that an entire VM is captured during backup, including all its disks and configuration files which ensure the consistency of applications and databases (such as Exchange, Active Directory, MS SQL, SharePoint) running in VMs.

Efficient Backup and Reliable Recovery

The combination of NAKIVO and HYDRAstor system enables organizations to simplify backup administration and optimize the capacity utilization. NAKIVO provides easy to use management capabilities for data backup, restores and recovery. Further, HYDRAstor's DataRedux and RepliGrid technologies compliment it by greatly reducing the capacity requirements and network utilization. NAKIVO also provides great features that improve VM backup speed, such as forever-incremental backups with CBT/RCT, LAN-free Data Transfer, and Network Acceleration. While backup deduplication is turned on by default with NAKIVO but to utilize more efficient hardware based deduplication, customer can disable it and use HYDRAstor's global inline data deduplication and compression. NAKIVO Backup & Replication integrated with HYDRAstor provides the ability to instantly boot VMs directly from compressed and deduplicated VM backups. This way, customer can recover VMs in seconds, without waiting for full restore from backup files. Once a VM is running, customer can migrate it to production for permanent recovery.

Efficient, flexible data resiliency for growing virtualized environments

To overcome the performance and reliability problems of traditional RAID—problems that are becoming more pronounced with the growing virtualized environments—HYDRAstor has employed erasure-coded data resiliency. The default mode protects against three concurrent failures (compared with two for RAID 6) but is user configurable from one to six depending upon the SLA and application requirements. With erasure coding, only data is reconstructed, rather than entire drives and the data is reconstructed across multiple spindles. The fact that you have VMware backups doesn't mean that you can recover from them. The only reliable way to ensure that you can recover from your backups is to perform test recoveries. After each backup job run, NAKIVO Backup & Replication can automatically and near-instantly verify all created backups and send you a report with OS screenshots of test-recovered VMs.

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