NEC

Write-Once Read-Many (WORM)

HYDRAlock™

At a Glance

- Enterprise and compliance modes of WORM administration

- Read-only file attributes persist after replication to a remote site

- Duration for Read-only access can be specified on a per-file basis

- After read-only duration has elapsed, files and their attributes, including deletion, can be administered normally

- HYDRAlock is a better platform for WORM function versus WORM devices that may become obsolete

- WORM provides record immutability for meeting regulatory and legal mandates

- Storage-based WORM ensures chain of custody integrity with system enforcement preventing policy enforcement compromise

- By maintaining read-only attributes after replication, policy compliance is assured at remote sites

- Enterprise mode enables IT to manage storage while Compliance mode enables regulatory compliance

Overview

Write-Once Read-Many (WORM) storage, which prevents change or alteration to stored data, is needed to comply with regulations such as SEC Rule 17a-4, NASD 3010/3100, Sarbanes-Oxley Act 2002 and the Financial Services and Markets Act 2000. By storing data in online, tamper-proof systems, organizations meet data protection mandates while benefiting from simplified, improved data access.

HYDRAlock

HYDRAlock™ prevents accidental or intentional erasing or alteration of documents, emails and other corporate records. By eliminating the lifespan limitations inherent to other WORM devices, HYDRAlock simplifies storage administration, ensures the authenticity of critical data and maintains the chain of custody for regulated business environments.

By relying on HYDRAlock, corporations can be assured of highly available, reliable storage with efficient storage management, without having to sacrifice data integrity and confidentiality.

HYDRAlock exposes file share access via the NFS or CIFS file system protocols. When a file system is created, administrators can specify it will be a WORM file system. Upon creation, files designated as read-only are placed in the WORM folder. Organizations can simultaneously maintain WORM and non-WORM file systems from the same Hybrid Node (HN). HYDRAlock enables companies to utilize WORM storage without depending on specific devices such as optical storage drives.

Storage Efficiency

HYDRAstor is a scalable, resilient grid storage platform designed to address the range of corporate backup and archive needs including WORM functionality. Unlike alternatives that locate WORM functionality in individual storage devices or specialized appliances, HYDRAlock enables single deployment and centralized administration. This approach simplifies deployment and aligns security and storage management to maximize data integrity by preventing tampering with security settings.

NEC has enabled WORM function to be implemented on a per Hybrid Node basis. This allows the function to be implemented for only the datasets or applicable portions of the infrastructure that need it. This relieves users from having to pay for an entire storage system even when the functionality is only needed for specific file systems.

By deploying HYDRAlock, storage security can be consistently implemented. For example, with replication, the security attributes are inherited after transmission to remote sites. This ensures that no breakdowns in chains of custody occur.

Security Effectiveness with Operational Flexibility

HYDRAlock supports two WORM administration modes: Enterprise mode enables IT administration of read-only storage, Compliance mode assures adherence to regulations. Both modes ensure data cannot be modified, but Enterprise mode allows the entire corresponding WORM file system to be deleted.

While HYDRAlock protects data from tampering or alteration, it does not hinder access to data. Data is completely available and copies can be made and placed in alternate storage locations. This can be useful to ensure availability in the case of a disaster. HYDRAlock features can be applied in a very granular manner so that function is precisely matched to specific datasets or files. Applying a policy can also account for changes in circumstances such as the need to extend the period of read-only access.

HYDRAlock enables exposing data with different WORM settings from the same Hybrid Node. Once a protection period has elapsed, storage management function—including modification of file attributes—is automatically restored.

More About NEC HYDRAstor

HYDRAstor is a self-evolving, self-managing, self-tuning and self-healing system that moves beyond "thin provisioning" to the new realm of "zero provisioning." IT can non-disruptively ride the technology curve through the seamless addition of "ever greener", ever-faster, and ever-denser nodes to the HYDRAstor grid.

HYDRAstor accomplishes unparalleled scalability by using two node types within the grid. Nodes can be added non-disruptively and without labor-intensive configuration or tuning.

- Hybrid Nodes enable linear performance and capacity scalability for backup and archive.

- Storage Nodes allow linear capacity scalability with non-disruptive expansion from terabytes to petabytes.

In a single distributed grid, HYDRAstor can efficiently and securely store months' or even years' worth of backup and archive data, making HYDRAstor the ideal storage platform for long-term data retention.
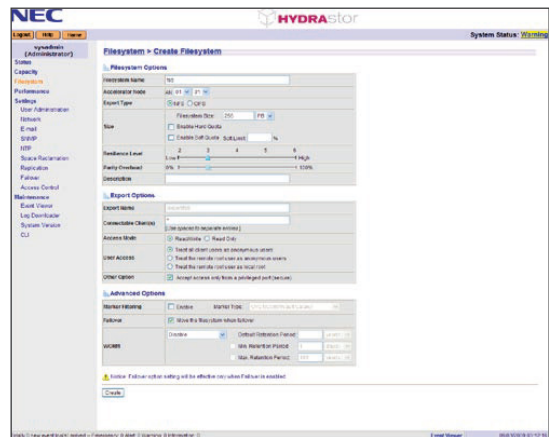
WORM functionality can be cost-effectively implemented on per file system basis, allowing for greater administrative flexibility.

HYDRAstor