

Supports all popular
Optical (M-O, DVD-RAM)
Jukeboxes

CaminoSoft

Managed Server HSM™ Optical Edition

Infinite Storage for Enterprise Data

Nearly all companies are experiencing an explosion in the demand for storage, driven particularly by space hungry applications like CAD, multimedia, computer graphics, document imaging, email and, last but not least, user-controlled directories. Meeting the demand for increased storage is only one aspect of this problem. Managing the data intelligently, growing the storage infrastructure cost-effectively and providing users with immediate access to all of their files are the real challenges.

Optical Edition Offers a Cost-Effective Solution

CaminoSoft's Managed Server HSM™ – Optical Edition provides a simple, cost-effective solution for handling the complexities of data storage management. The Optical Edition offers all of the features of our standard Managed Server HSM including support for multiple, off-the-shelf storage devices, NAS appliances, general purpose servers, etc. In addition, the Optical Edition provides support for DVD-RAM, Magneto Optical (M-O) and Ultra-Density Optical (UDO) libraries from the major vendors like Hewlett Packard, IBM, Plasmon, Sony, just to name a few. The combined storage options made available by the Optical Edition provide a storage hierarchy capable of virtually infinite storage growth and increased data availability – with a minimal amount of effort and expense. As storage requirements increase, additional storage devices and/or library media can be simply added to the pool.

Optical Edition How it Works

Like our standard Managed Server HSM solution, Optical Edition enables the administrator to configure policies and usage of the “virtual” Central Storage Pool and migrate files that are infrequently accessed to the

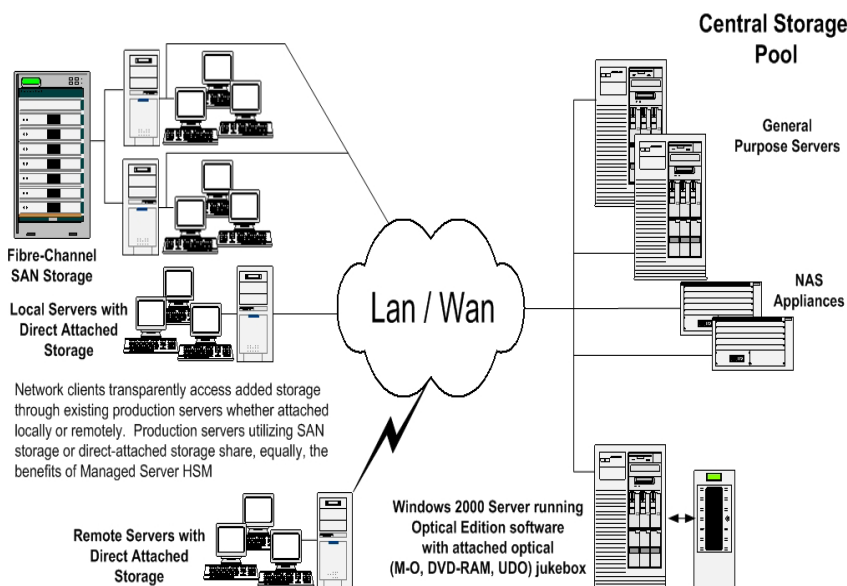
pool. Using additional policies, Optical Edition extends this functionality by providing the ability to migrate files further along a storage hierarchy to popular optical jukeboxes. The policy-driven engine provides for “lights-out” operation, reduces the time and space to make backups of the files that are actually changing day-to-day, while providing complete, transparent access by users to all of their data.

Optical Edition Benefits

In addition to leveraging existing storage resources by migrating seldom accessed files, Optical Edition enables administrators to increase their storage capacity by utilizing jukeboxes equipped with drives of various media types (DVD-RAM, M-O, UDO – including WORM-type media to satisfy regulatory requirements where needed) from a variety of vendors – further lowering the total cost of ownership of mission-critical data.

Managed Server HSM™ Optical Edition Key Features

- Provides all the features of Managed Server HSM™ for Windows 2000/2003
- Adds support for standalone drives or libraries containing drives for:
 - Magneto Optical (M-O)
 - DVD-RAM
 - UDO
 and can be combined with other supported devices (NAS, servers, tape libraries, EMC Centera, etc.)
- Provides seamless access to migrated files
- Requires minimal IT intervention allowing for easy implementation
- Enables full administrative control over migration activity via comprehensive policy maintenance
- Maintains policies for all Managed Servers from a single, Windows workstation graphical interface



Managed Server HSM – Optical Edition, running on your existing Windows 2000/2003 server, uses automated management policies to aggregate Central Storage resources into pools with added support for optical (M-O, DVD-RAM, UDO) jukeboxes.

Data Sheet: Managed Server HSM™ Optical Edition

Today's IT Reality and Challenges	Optical Edition Solves Business Problems
<ul style="list-style-type: none"> Simply adding new storage (disks, servers, NAS devices, volumes, etc.) creates more "islands" of distributed data storage Storage "islands" create a fragmented view (more mapped drives) of storage making it more difficult and time-consuming for users to store and find their files 	<ul style="list-style-type: none"> Consolidates available storage across multiple network servers into a "virtual" Central Storage Pool to provide a host for infrequently accessed files; leaving space available for the applications and users who need it most Provides a consistent, single view of storage to applications and users, regardless of their files' physical locations
<ul style="list-style-type: none"> Newly deployed storage cannot be dynamically utilized by users and applications. Files must be manually transferred to newly deployed storage, creating new network shares/volumes requiring further administrative time to employ security Additional storage is difficult and expensive to manage. According to recent industry estimates, management of storage costs 8 times the hardware cost 	<ul style="list-style-type: none"> Makes any storage capacity added to the Central Storage Pool automatically available to all production servers running Managed Server HSM. Users/applications store and retrieve their files from the same network shares/volumes as they always have Manages data storage in an automated, intelligent manner based on administrator-defined policies – reducing manual management overhead and providing lower total cost of ownership
<ul style="list-style-type: none"> Increased time and space necessary to make routine backups increases the likelihood of backup failure (it is estimated that 40% of all backups are aborted), potentially leaving critical production files unprotected Full server (disaster) recovery takes longer by restoring all files regardless of their current relevance, creating unnecessary, extended periods of downtime 	<ul style="list-style-type: none"> Enables backup solutions to focus on active, production files by protecting only the reference information for the files that were migrated to the Central Storage Pool (as much as 80% or more of the total volume of data) Shortens time required to perform full server (disaster) recovery - minimizing downtime - by restoring only relevant, production files in full while restoring just the reference information for the infrequently accessed files
<ul style="list-style-type: none"> Lack of a persistent storage "watchdog" exposes organizations to unnecessary and costly downtime when servers run out of storage space. Manual monitoring of space availability by administrators requires valuable time better spent on productive tasks 	<ul style="list-style-type: none"> Automatically monitors storage status and migrates files to Central Storage Pool devices – both routinely and on an emergency basis – freeing up space on overloaded servers before critical levels are reached, reducing management costs, downtime and other associated costs; with no administrator intervention
<ul style="list-style-type: none"> Companies are generating more and more data, with no end to growth in sight. It is estimated that the average annual storage growth rate now exceeds 75%. Reacting to this growth by simply adding/upgrading storage resources creates more downtime and the costly administrative overhead to install, configure and manage the additional storage There is no mechanism in place to avoid "reactive" early retirement of server/storage assets simply because of the lack of available space 	<ul style="list-style-type: none"> Provides scalability by allowing administrators to simply add servers/devices to the Central Storage Pool as storage requirements increase. Servers running Managed Server HSM gain access to the additional storage without the need for costly downtime Enables policies to be adjusted to further extend the life of existing storage resources by migrating additional files to the Central Storage Pool when true production file usage approaches current capacity
<ul style="list-style-type: none"> End users demand timely access to stored data without having to search or burden IT resources to find their files 	<ul style="list-style-type: none"> Provides end users immediate and transparent access to all their stored files in their existing directory structures; without administrator intervention
<ul style="list-style-type: none"> SANs provide centralized administration and storage pooling, but at a significant cost SANs are subject to the same out-of-control growth that plagues conventional, direct-attached storage environments and must accommodate infrequently accessed files along with active production files 	<ul style="list-style-type: none"> Enables IT to purchase a smaller amount of expensive, SAN disk storage by pooling and utilizing inexpensive disk resources (e.g. IDE RAID, NAS, etc.) to store infrequently accessed files Minimizes SAN storage growth by constantly differentiating infrequently accessed files from active production files, and migrating them to less expensive storage

Benefits With CaminoSoft Managed Server HSM™ – Optical Edition

- Extends the life of existing IT storage investment by postponing the necessity for expensive server/storage upgrade decisions
- Prevents costly downtime related to "out of disk space" conditions
- Increases data availability by migrating infrequently accessed files where they remain available; instead of users or administrators deleting or archiving them
- Reduces the time to backup production files and, more importantly, reduces the time needed to recover a failed server; once again preventing costly downtime
- Installs and configures quickly and easily without overloading IT resources
- Adds support for all popular optical (M-O, DVD-RAM, UDO) jukeboxes

System Requirements

- Server running Windows 2000/2003 Server
- Pentium Processor or higher
- 512 MB RAM or greater
- NTFS volumes
- CaminoSoft Managed Server HSM – Optical Edition software with included media management software
- Central Storage Pool comprised of one or more off-the-shelf hardware configurations of network attached storage (NAS) devices, general purpose file servers, supported optical (M-O, DVD-RAM, UDO) standalone devices and jukeboxes, or combinations of the above

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