



**NORTHERN STORAGE SUITE**  
SOFTWARE PRODUCT DESCRIPTION

# NORTHERN STORAGE SUITE

## MANAGING USER-GENERATED DATA

Northern Storage Suite is a software solution that resolves the technical and managerial issues associated with storing user-generated data.

Northern Storage Suite's interface consists of a start page displaying your latest NSS: Dashboard report and five complementary workspaces; Quota Server, Storage Reporter, Storage Portal, Storage Chargeback and Storage Assistant. Each of these workspaces is designed to help you tackle specific storage management goals in the best possible way. Below you can find a complete list of all the features offered within Northern Storage Suite.

### ■ NSS: DASHBOARD

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**An overview of your storage situation as the NSS start page or in your mailbox.**

#### **Storage Analysis:**

- Current state – Total usage and total capacity within the environment
- Current paths – Paths at specific usage brackets and path growth rates
- Critical paths – Highlighting paths at dangerous levels
- Future critical paths – Paths that require immediate action
- Current users – Revealing average and excessive usage
- Future users – Projected levels of usage and future distribution among users
- File type growth – Changes in the size of file type groups and projected future sizes

#### **Warnings and Action Recommendations:**

- Warning flags: current status – Immediate communication of where action is needed
- Warning flags: future status – Dashboard identifies trends within the storage environment and projects what effect these trends will have. Dangerous trends are instantly identified and communicated
- Action recommendations – Taking the next step from identifying current and future problem areas, NSS: Dashboard offers expert, environment-specific advice as to how the identified problem areas can be managed and how the predicted future issues can be easily avoided

### ■ NSS: QUOTA SERVER

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**Advanced quantity control policies allow you to minimize usage and growth rates:**

- High performance NAS quotas – a cached fast access list of file sizes ensures zero impact on NAS performance

- Hybrid EMC Celerra quotas – advanced asynchronous monitoring and synchronous locking guarantees a secure quota policy and maximizes filer performance
- Hybrid NetApp NAS quotas – asynchronous monitoring and synchronous locking warrants a secure quota policy and preserves filer performance
- User-based quotas – set quotas on individual user accounts [available for Windows, Windows Cluster, EMC Celerra, NetApp NAS and SAN]
- Directory and object level quotas – set quotas on all levels of file structure
- User exclusion – lift quota restrictions for specific users within a quota [available for Windows, Windows Cluster, EMC Celerra, NetApp NAS and SAN]
- Path exclusion – lift quota restrictions for specific paths within a quota [available for Windows, Windows Cluster, EMC Celerra, NetApp NAS and SAN]
- Exchange quotas – set quotas on individual exchange mailboxes
- Group-based quotas – make quota settings dependant on a users Primary Group membership [available for Windows, Windows Cluster and SAN]
- Set quota wizard – a more efficient tool for designing and implementing quota policies
- Smart quota columns – pick up Active directory data in the quota view for mass and micro management
- Automated user quotas – create a template quota that automatically controls all existing and any new users [available for Windows, Windows Cluster and SAN]
- Automated directory quotas – create a template quota that automatically controls all existing and any new directories
- Asynchronous quota monitoring – user and device activity are not stalled by quota processes

- Real-time quota controls – quotas are evaluated, displayed and enforced in real-time
- Hard quotas – allow users to edit and save existing files, only save open files or save no files at all
- Hard exchange quotas – lock mailboxes or just stop the possibility to send mail
- Soft quotas – encourage compliance with notifications only
- Active quotas – execute programs at quota thresholds to take remedial action when a quota is exceeded
- Trigger notifications at usage intervals – send emails and popup messages at thresholds of quota usage
- Customizable notification templates – localize quota notification templates to suit your specific needs
- Distribution across data types – view usage by file type group and individual file type
- Distribution across users – view usage by user
- History of usage – view history graphs for host group, host and path levels
- History of file type content – view history graphs for file type group and file type levels
- History of user levels – view history graphs for individual users
- Projected usage – view projected usage for host group, host and path levels
- Projected file type content – view projected file type group and file type levels

**Content control policies allow you to prohibit unwanted file types:**

- File type blocking – do not allow users to store specific file types [available for Windows, Windows Cluster, EMC Celerra, NetApp NAS and SAN]
- File type group blocking – mass-prohibit music, movie or program files [available for Windows, Windows Cluster, EMC Celerra, NetApp NAS and SAN]
- Efficient file block – real-time scanning at file extension level [available for Windows, Windows Cluster, EMC Celerra, NetApp NAS and SAN], binary-level scanning performed in a scheduled report

**Advanced quota management to achieve specific results:**

- Customizable quota workspaces – edit existing or create new workspaces, include or exclude columns, filter, subtotal and group
- Delegate permissions – allow user groups controlled access to manage certain aspects of the quota policy
- Storing quota settings – quota configurations can be stored in the local registry, in MS SQL or in Active Directory
- Command-line tools – utilities offer straightforward integration into batch operations
- Custom quota labels – label quotas for quick recognition and mass-management
- Automated notification setup – use LDAP queries and custom variables to automate notification configuration

**■ NSS: STORAGE REPORTER**

**Information-rich drill-down interface shows general storage status:**

- General status – view status at enterprise, host group, host and path levels

- Projected user levels – view projected usage by user
- Largest files – view largest files at host and path levels
- Oldest files – view oldest files at host and path levels
- Disk and I/O performance data – identify weakening devices
- Customizable graphical displays – choose to display data as column chart, pie chart, a plain list or as icons
- Export to MS Excel – export any data shown in the interface to Excel

**Comprehensive scheduled reports reveal specific details of your storage environment:**

- File size – list all files above a certain threshold
- File accessed date – list all files that haven't been accessed since a certain date
- File modification date – show all files that haven't been modified since a certain date
- File creation date – report on all files that were created before, after or on a certain date
- File type – list all files of a specific type, using file extension or header data
- File backup status – show all files that have their backup attribute set or not set
- Files containing hidden streams – report on files that contain hidden streams
- File type growth rates – show the file types that have grown the most during a specific time period
- File duplicity – identify true duplicate files by matching file content, not just name and size
- Folder size – see the usage per folder
- Folder size per user – see the usage of every folder per user

- Folder size per file type – see the usage of every folder per file type
- User accounts – list all files owned by a specific user
- User accounts that are obsolete – report on all files owned by obsolete accounts
- Users that consume the most space – list the top users within your environment
- User growth rates – show users with the fastest growing space consumption
- Host forecasts – which hosts will reach a dangerous level of usage on a specific date
- Path forecasts – which paths will reach a dangerous level of usage on a specific date
- Quota report – easily see all the quotas above or below a certain size
- Exchange report – see all the Exchange mailboxes above or below a certain size
- Export to Excel – report output to blank work books or customizable templates
- Graphical report output – inline graphs for clearer communication
- Grouped report output – group raw data straight in the report

## ■ **NSS: STORAGE PORTAL**

### **User-focussed storage portal makes users responsible for the data they own:**

- Storage quota integration – portal reports scan quota paths and are provided through quota threshold notifications
- User specific reports – individual storage reports offer users the tools they need to manage their own storage use
- Interactive reports – users can open, move or delete files or groups of files from directly within these reports
- Quota status report – displaying the users current quota status
- File age report – provide users with a interactive report listing their oldest files
- File size report – provide users with an interactive report of their largest files
- Media file report – provide users with an interactive report showing their true media files, a report generated by a binary level scan
- Duplicate file report – provide users with a list of their true duplicate files, a list generated by a binary level scan and pattern matching

- Files owned by others report – show users all files owned by other accounts that are stored within the path of their storage quota

### **Controlled growth rates and decreased administrator involvement:**

- Grace limit rules – define rules to handle quota increase requests, allowing usage to grow by a specific percentage over a specific period
- Group membership dependency – define different rules for different User Groups
- Automatic or manual handling – have increase requests evaluated automatically or queued for administrator approval

### **Customizable user experience:**

- Localize portal language – translate the component text to ensure quick understanding
- Localize portal message – use the available text fields to describe the details and motivations behind the company's SRM policy
- Remove interface elements – if the users should not have the option to request a quota increase, simply remove it from the interface

## ■ **NSS: STORAGE CHARGEBACK**

### **Billing for storage use highlights the true costs involved:**

- File system analysis – invoice or report according to storage use
- Exchange mailbox analysis – invoice or report depending on mailbox size
- Quota analysis – invoice or report according to quota size
- User level reporting/billing – send individual users an invoice or a cost report
- Group level reporting/billing – send department managers an invoice or a cost report
- Path level reporting/billing – send reports and invoices to project managers and customers
- Open format outputs – calculation output is stored in MS SQL, and can also be exported to MS Excel and CSV

### **Granular pricing schemes match real-world business models:**

- Multi-tiered billing classes – use a flat pricing scheme or one where different usage thresholds trigger escalated costs
- Pricing to match device types – charge a premium for high end storage and encourage infrequently used data to be kept on low end devices

- Base cost – charge a start-up fee to cover administrative overhead

**Scheduled reports offer financial analysis:**

- Identify cost growth patterns – the fastest growing user, group or path
- Identify budget viability – forecast budget exhaustion dates according to current trends

■ **NSS: STORAGE ASSISTANT**

**Use flexible event logics to trigger pre-defined actions:**

- Calendar events – use dates, date ranges, days and times to trigger actions
- Timer events – use time intervals to trigger actions
- File watching events – use changes in file or directory properties as triggers for actions
- Internet watching events – monitor for specific strings or simply any changes in web pages and trigger actions when changes occur
- System watching events – monitor for system events like a service start-up and trigger actions
- Multiple events – group events to create advanced triggers
- Integrated events – create logical relationships between events to only trigger actions when all are true, only one, or none are true
- Repetition control – control the number of times the event can be true

**Define flexible actions to automate your specific processes:**

- File delete action – permanently remove unwanted files, filter on type, size, modified or accessed date
- File copy action – make copies of files for backup or simple monitoring purposes
- File move action – archive or quarantine files according to type, size, accessed or modified date
- Directory replicate action – maintain a mirrored copy of directories across multiple devices or sites
- Execute program action – trigger compression tools, custom scripts or batch files
- FTP/HTTP actions – upload, download or run scripts via ftp or http protocols
- Notification actions – send smtp or popup notifications include variables to make notifications event sensitive
- Multiple actions – group actions to extend automation processes
- Integrated actions – create logical relationships between actions to add fault tolerance into the automation process

- Result passing – pass results between actions to more closely integrate their function
- Repetition control – control the number of times an action can be executed

**Open interface ensures complete transparency of automation processes:**

- Goal-specific views – status, history, timeline and statistics views provide the information needed to manage an advanced automation system
- Common building blocks – processes are automated with standardized and open building blocks

■ **NSS**

**Manage the enterprise**

- Multi-host display – all workspaces can include data from all devices
- Multi-host management – all workspaces allow concurrent management of multiple devices
- Email protocol support – send notifications using SNMP, MS Mail, MS Exchange, Windows Messenger and command-line messaging
- Operation Manager support – post warnings and information messages to the Event Viewer
- COM API – integrate storage control policies with COM aware applications
- SQL database store – quota settings, usage and cost data, billing class definitions, etc. are all stored in an open SQL database
- Active Directory integration – LDAP is used extensively to automate configuration wherever possible

**Platform Support**

- Microsoft Windows [2000 Server or later]
- Microsoft Windows Cluster [all modes supported]
- Network Attached Storage [with CIFS enabled]
- EMC Celerra [Celerra 5.6 or later including CEE framework and CEPA module]
- NetApp [Data ONTAP 7.0 or later including FPolicy 1.4]
- Storage Area Network [where the resource appears locally to a Windows host]

**Licensing and Set-up**

- Northern Storage Suite is licensed by [physical] host and by capacity [sum of managed volumes]
- NSS services must always be installed on a Windows server regardless of the target platform[s]
- A Microsoft SQL Server must be available on the network

## ADDITIONAL RESOURCES

- Read more about the solution: [www.northern.net/nss/](http://www.northern.net/nss/)
- Sign up for a web seminar: [www.northern.net/webinar/](http://www.northern.net/webinar/)
- Download a fully-functional 30-day evaluation version: [www.northern.net/download/](http://www.northern.net/download/)
- Find your local reseller: [www.northern.net/resellers/](http://www.northern.net/resellers/)

### **ABOUT NORTHERN**

NORTHERN is an international software company specializing in the development of reliable, flexible, and easy to use storage resource management software solutions. The company serves a global market through its five bases of operations, Tampa [US], Stockholm [Sweden] , London [UK], Biarritz [France] , and Munich [Germany]. Over 28,000 organizations in 52 different countries and more than half of the companies on Fortune Global 100 use Northern software solutions to take control of their storage situation.

Northern Storage Suite is available through resellers worldwide, authorized distributors and from Northern directly. Customers in North America should contact Northern [U.S. Operations] at 1.800.881.4950 or [sales@northern.net](mailto:sales@northern.net). Customers in other parts of the world should visit Northern's Reseller page on [www.northern.net](http://www.northern.net) to find their local Northern software supplier, or contact Northern [European Operations] at +46 8 457 50 00.



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