NORTHERN: USER DATA MANAGEMENT

Growth rates in unstructured data continue to accelerate. The total amount of data in the world is more than doubling every two years, with enterprises having liability or responsibility for 85% of that data.

Organizations are generating data internally at unprecedented rates; we are also gathering data from external sources and incorporating it into our data centers. This data, and the information that can be derived from it, is driving a new era of business development. Enterprises are becoming data-driven.

The responsibility to harness the value of this data is being put into the hands of data owners or dedicated Data and Information Managers within the line of business. The responsibility to facilitate and support this work is in the hands of the IT department. The effect of this shared solution ownership, points to increased levels of collaboration, even integration, between IT and all other organizational units as a critical factor for continued business growth.

This new era presents many challenges and opportunities. Northern developed the software solution Northern Storage Suite and founded UDM to focused is on two of these challenges:

- **Insight** the need to deliver information about the effect of data storage practices.
- Control the need to deliver control over these practices.



WHY USER DATA MANAGEMENT

User Data Management [UDM] is dealing with the challenges and opportunities related to user-generated, unstructured data, through insight and control.

The challenges of rapid data growth:

- Storage cost is not just about buying disk once you start adding up personnel, power, backup etc. you will see that while the cost of disk is decreasing the cost for storing data is quite expensive.
- Operational risk increases with the amount of data - more data means more complexity and strain on the environment. It takes longer to manage the data, and downtime becomes more likely, thus increasing the operational risk.
- Compliance starts with knowledge without knowledge it's impossible to stay compliant, whether it's for government regulation or for legal exposure, knowing what's saved in your environment, where and by whom is vital.

Addressing the challenge through UDM:

- Gaining insight into your user-generated data having insight into your data is key to controlling it.
- Identifying potential efficiency gains everything could be made better. Any large pool of user generated data will contain inefficiencies that could be corrected.
- Understanding growth patterns growth is not a bad thing, but knowing where that growth comes from will enable a strategic approach to growth containment and planning.
- Changing user behavior clear communication of reasonable limits, cost and insight is an important factor in changing how the users manage their data foot print.

HOW TO WORK WITH UDM

The Northern Approach to UDM is a goal-driven, policy-based process, designed to address the challenges surrounding user-generated unstructured data. In an iterative process based on the common goals of the organization, opportunities for policies are discovered through analysis of real data.



Goal: In cooperation with Northern, organizations identify business goals.

Discovery: A data analysis using Northern Storage Suite, provides valuable input for the goal-definition process.

Opportunity: When goals have been identified the open opportunities to achieve these goals can be explored.

Policy: Conclusions drawn in the opportunity analysis phase map out a defined set of policies.

Operations: Northern Storage Suite is then used to implement the necessary operations that will maintain these policies.

Evaluation: In an iterative process, with periodic reevaluation, tuning and evolution, the organization's long-term goal fulfilment and ROI can be maximized.

HARD FACTS

- Total amount of data is doubling in size every two years, according to IDC.
- The cost per TB of data in a datacenter is close to \$5,000/year, according to Gartner.
- Only 65% of enterprise storage is effectively utilized, according to Gartner.
- Improving business's accountability for IT related projects is the best way to boost IT performance, according to McKinsey.

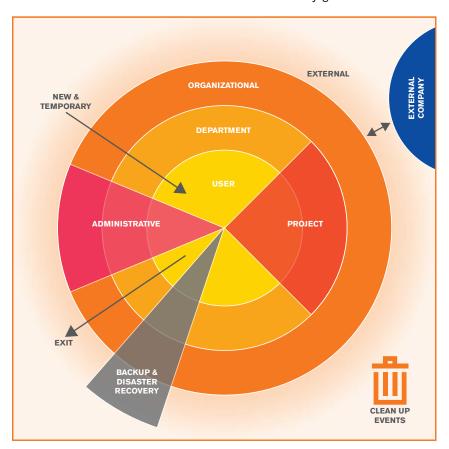
USER DATA MANAGEMENT POLICIES

Data is the lifeblood of all organizations today. User Data Management policies will touch every part of the organization at one point or another. Implementing a user data management strategy is an iterative process. It starts with insulated IT actions gaining insight, followed by non-restrictive policies involving line of business, continually evaluating, refining and providing more information and potentially restrictions. Always navigating towards your over-arching organizational goals and gradually tighten the scope and adjust the policies to fit your needs.

UDM POLICY TYPES

- 1. **External Policies** define business critical data and regulate how and where its stored.
- 2. Organizational Policies are spread across all facets of the business and abide by industry and regulatory standards.
- Departmental Policies are inline with the organizational policies and implement specific roles and requirements that are unique to each departmental focus.
- 4. Project Policies encompass multiple users and departments for the timeline of the project, respecting contracts, agendas, and collaborative efforts.
- User Policies assign ownership to data footprints, empowering individuals to manage their impact on the data environment.
- New User Policies refer to the on-boarding process for individuals joining the organization in respect to set-up, education and implementation of UDM.
- Temporary User Policies are based on the timeline of an individual and should reference data retention and legalities.
- 8. Exiting User Policies dictate transfer of data ownership and are in line with regulatory and legal necessities.
- Administrative Policies define the role of the Data Custodians and dictate the rights and responsibilities assigned to those individuals.

- 10. Backup, Crisis and Disaster Policies serve as a roadmap for recovery and reference all types of ownership and targeted storage.
- **11. Collaborative Data Policies** outline partnerships with other organizations for data retention and legal ownership.
- **12. Clean Up Event Policies** set a schedule across all facets of the business to maintain a well-balanced data environment with healthy growth rates.



THE BENEFITS OF UDM

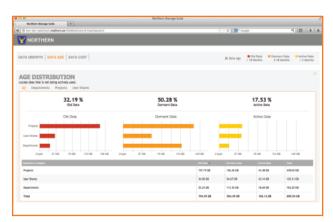
User-generated data is a significant concern to all large-scale organizations today. Parts of the challenge can be solved through automated tools built into the storage hardware such as de-duplication, compression and file optimization. These tools only affect previously created data. In order to adjust to today's relentlessly changing demands for IT efficiency you need to start with the creators of the data, the end-users. Northern developed the software solution Northern Storage Suite and conceived User Data Management, as a goal-driven, policy-based process. Regardless of your IT infrastructure, gaining insight and control is key for IT to bring real value into the organization's core business.

NORTHERN STORAGE SUITE

Northern Storage Suite is a user and data centric software solution that enables organizations to control data growth, align the value of data with the cost of storage, and extend the life of storage infrastructure – making efficient storage consumption a part of business culture. Specifically, Northern Storage Suite delivers:

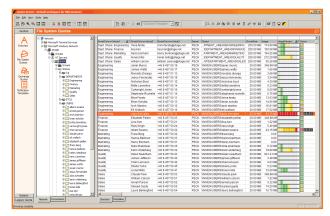
Insight into user-generated data through:

- Enterprise wide reporting on global or business unit level, showing how resources are currently being used and how they will be used in the future.
- Role-adapted reporting provides line of business, data custodians, project managers and end-users with information about how their data storage behavior impact the organization. By distributing reports into the organization, the business is able to support cost and risk reduction efforts by data owners and to improve cooperation between IT and other business divisions.



Control over user-generated data through:

- Disk quotas, showing the end-user a reasonable upper limit for how much should be saved, bring hard control over directory size and usage by user, or soft control for monitored growth and enhanced accountability.
- File blocking can decrease liability, help structure your data and inform end-users what type of content is undesirable by preventing specific file types from being saved. Extension based real-time scanning and scheduled binary-level scans preserve system performance.



Northern Storage Suite is a Windows-based software solution that provides insight and control into user-generated unstructured data across hardware platforms, geographical sites, data sources and file formats. The solution can be used on any direct attached storage, all CIFS compliant NAS devices and has dedicated support for EMC VNX, EMC Isilon and NetApp NAS.

ABOUT NORTHERN

NORTHERN is dedicated to helping organizations gain insight and control over their unstructured user generated data. Founded in Stockholm, Sweden in 1995 Northern has from the beginning served a global market focusing solely on User Data Management [UDM]. The in-house developed software solution, Northern Storage Suite, is used by organizations around the world with large numbers of users and/or large amounts of unstructured data. Organizations in all areas, from aerospace and healthcare to government and education, have realized the benefits of the goal-driven, policy-based approach to UDM that Northern can offer.

The company serves a global market through its six bases of operations Sweden [Stockholm], United States [Boston, MA], France [Paris], United Kingdom [London], Italy [Turin] and The Netherlands [Utrecht] For more information visit: www.northern.net

