

SmartMove & FSE at Lurgi AG

A Case Study

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Lurgi employ SmartMove and File System Extender to provide cost effective, accessible tiered file storage.



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The Background



Lurgi AG (www.lurgi.de) is a leading technology company operating worldwide in the fields of process engineering and plant contracting. Lurgi focuses on proprietary technologies and exclusively licensed technologies in the product areas gas-to-petrochemicals via synthesis gas or methanol and synthetic fuels, gas generation and treatment, petrochemical intermediate and end products, biofuels as well as food and oleochemicals.

Lurgi operates projects that can generate massive amounts of engineering and design data, which must remain rapidly accessible throughout each phase of design and construction.

The Challenge

Lurgi's current estimate for year-on-year growth of data is approximately 200GB

The requirement from Lurgi was to enable the seamless migration of older historic data currently held on the Network Appliance Filers to HP StorageWorks File System Extender (powered by Grau Data's Infinistore) while keeping these files transparently available to the user community.

Lurgi identified that their data became 'less valuable' over time but that this depended on the project execution:

- operational data between 2-3 years
- not-operational data approx. 1 year

Specific requirements included:

- Managing the ever increasing volumes of Project Data whilst keeping information available on demand.
- Keep expensive primary storage available for current project data.
- Move data that is not immediately required off to cheaper storage.
- Retain transparent user access to moved data
- Automate policies
- Reduce backup times

The Solution

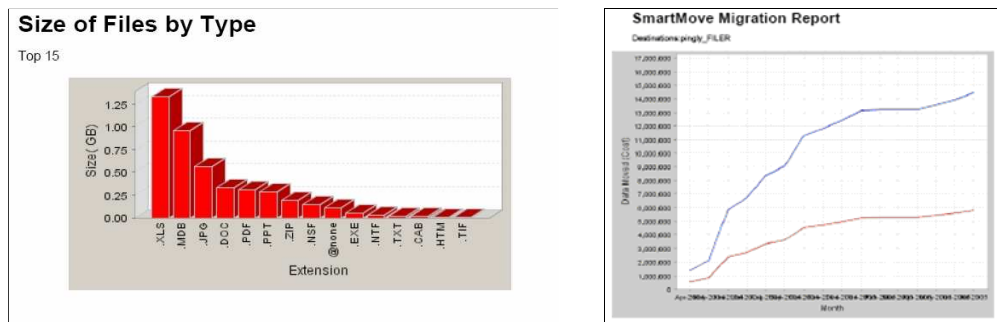
1) The Policy Engine - Enigma's SmartMove

SmartMove's primary purpose is to periodically identify files and directories that match a given policy and to move these, with extensive integrity checks, to HP StorageWorks File System Extender

SmartMove supports multiple policy combinations on: owner, size, name (file or directory), and modification/accessed/created/changed dates.

Policies can be applied at different file system levels to help you achieve your chosen data lifecycle management.

SmartMove included facilities for detailed reporting and data classification on both file system and SmartMove data movement activities. Including Cost – benefit analysis, Actual and predicted data movement over time, 'What-if' style reporting instantly allowing you to preview data to be migrated.



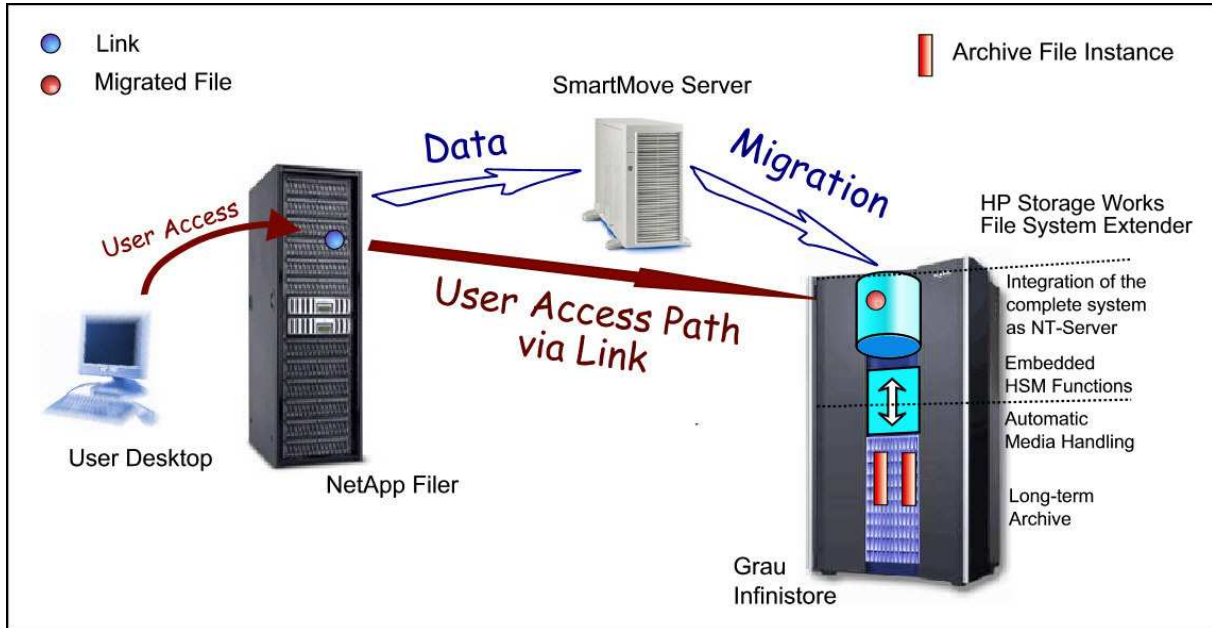
2) The Nearline Storage System – HP StorageWorks File System Extender

File System Extender is designed to supplement and optimize existing systems for data storage, archiving and backup by integrating it as a central storage solution in the network.

Without changing the existing file server structure, inactive data on production servers is automatically migrated by SmartMove to File System Extender while still retaining online access.

Depending on data access and protection requirements, File System Extender employs its own policy engine to determine where data will reside. In the short term this will be disk, in the longer term it will be transparently moved to the integrated tape system. FSE facilities ensure that multiple copies and offsite archiving to a remote data centre is easily achieved.

The Architecture



After inviting several vendors of archiving solutions; Lurgi recognised that no other companies could provide an 'out-of-box' system like the combined system from HP and Enigma Data Solutions.

The source data resides on Network Appliance filers with a total capacity of 6TB.

The solution consists of:

- Windows 2000 Server
- HP StorageWorks File System Extender 17TB Library with Sony AIT2 tape drives.
- SmartMove Policy Engine from Enigma Data Solutions.



SmartMove has been configured to periodically identify 'older' files on the filer and to move them to the File System Extender. FSE will then move the files onto tape. A link is left in place of the original files so that if users access these older files again they are transparently 're-directed' to the data on FSE.

The Results

How has the solution contributed to Increased Productivity?

“With the possibility of ‘ad hoc’ data migration (whilst keeping data online) we’re able to react flexibly on storage shortage problems which would massively affect our it-processes.”

How does the solution contribute to improved storage utilization?

“Due to the extensive migration of less valued data we’re able to postpone the upgrade of our Network Appliance filesystems. Furthermore users where forced to reconsider the usage of expensive storage and to evaluate the priority of personal data.”

How has the solution contributed to Total cost of ownership?

“The development and implementation of archiving as well as migration scenarios will enhance the TCO now and in the future.”

How do the users view the solution – is it transparent to them?

“Once users understood the underlying technology and philosophy of the solution they were happy to support us to improve migration and reduce waste of expensive storage”

Why were **SmartMove** and **File System Extender** considered to be better than other solutions?

“There was no alternative system available when we started looking for a solution. Nevertheless we would make the same decision. “

How has **SmartMove** and **File System Extender** helped Lurgi improve total cost of ownership?

“Optimizes the use of primary versus secondary storage capacity and reduces the burden of storage management”

“Makes backups more efficient - reducing the amount of data on primary storage also shortens the time required to back up to tape, minimizing the impact of tape backup on project staff. It has additionally resulted in substantial savings on tape media”

“Ensures that Lurgi always has space to add new projects or meet unforeseen needs without having to add more storage.”

The Companies



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Hewlett-Packard (www.hp.com) with its FSE product, HP offers new-generation data management software with capabilities beyond traditional HSM software that makes it a cost effective solution to managing massive amounts of file system stored data. Using policies that reflect business requirements, files are automatically moved between production storage and secondary storage.



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Enigma Data Solutions Ltd. (www.enigmadata.com) is an ISV producing Archiving, Backup, HSM and ILM software. The company's products currently provide a substantial return on investment to a number of companies worldwide. The company is headquartered in East Sussex, UK and has a sales and support office in Houston, USA.



Hewlett-Packard (www.GrauDataStorage.de) has been a specialist in archiving and storage solutions for many years. The company is focused on providing scalable and flexible solutions in the area of Hierarchical Storage Management (HSM) in the network.