

## Case Study: Impact Systems Completes Complex Content Migration for Dell



### Business Overview

Dell, Inc. and its subsidiaries engage in the design, development, manufacture, marketing, sale, and support of computer systems and services to customers worldwide. The company offers a variety of products including servers, storage devices, printing and imaging systems, workstations, notebook computers, desktop computers, networking products, software, and peripherals. The company sells its products to large corporate, government, healthcare, and education accounts, as well as small-to-medium businesses and individual consumers.

### Challenges

Dell has a geographically dispersed Product Group operating in facilities in the Americas, Europe, Middle East and Africa, and Asia Pacific-Japan. Over Dell's 20+ year history, the Product Group generated large volumes of documents, stored in hundreds of home grown systems, standard content management systems such as SharePoint, and shared drives. These systems and file shares contained hundreds of thousands of documents. Approximately 12,000 users accessed these repositories, with varying levels of authority based on need-to-know, import/export laws related to technology, and job function.

Following a strategic initiative, Dell implemented an EMC® Documentum® content management system to centralize the Product Group documents and system administration. With this base in place, Dell then faced the challenge of migrating the legacy systems and file shares into Documentum®.

#### Time Constraints

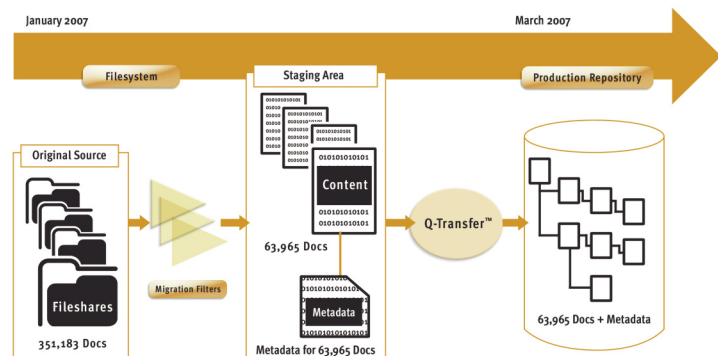
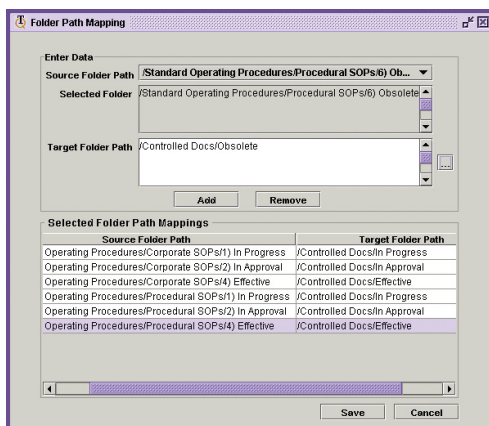
The Product Group's largest legacy repository reached the limits of its capacity in late 2006, causing difficulties in reliability and availability, just as the migration project was about to get underway. Easy access to business critical product documents was at risk. Despite immediate actions to keep the system at a functional level, it was clear that the application should migrate as soon as possible. At this point, the tools, processes, and resources to undertake the migration were not yet identified. Quality assurance was a must. The tools and processes chosen for this key repository would need to be reusable for additional repositories. Application users around the world needed to be trained on the new system prior to cutover. Technical resources and business knowledge experts from geographically dispersed locations would need to support the migration activities.

Analysis of the migration effort and direction was completed in early 2007. Phase I migration was authorized in mid-January with a target date of March 2007 to complete migration of this key repository plus two others. The project team had 2.5 months to complete Phase I migration.

#### The Challenge of Mapping

One of the key challenges in migrating from one document management system or set of systems to a new repository is mapping. This includes mapping of metadata, folder paths and other associated information from the legacy systems to the new application. Dell's legacy repositories contain unique application taxonomies which evolved over time. In some cases the folder structures extended 25 levels deep. There was no standardized document naming convention across applications. All of these documents needed to move from their existing locations to the correct target locations within a single repository. Dell would need to consolidate documents from perhaps 100,000 folders into a few hundred folders.

In addition, the new application contained metadata—information about the documents used for search, retrieval, and key business processes and controls—which was required for storage of the documents. Some metadata could be defaulted based on the source system repository. Some could be extracted from document properties (such as the Word or Excel "author" property). Some did not exist except in the minds of expert users.



## Solution

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Dell engaged Impact Systems for both the migration analysis and subsequent Phase I migration activities. Dell chose Impact based on Impact's expertise with Documentum® applications and large scale content migrations.

### Tools

A single migration tool along with two migration filters were used to support Dell's migration. The migration filters executed Dell specific business logic rules during the migration. Because these migration filters were flexible, the mapping and value selection criteria were able to vary, thus making the same filters useful across multiple source repositories.

For example, a Selection Filter was used to limit the documents migrated into the new repository. The filter selected documents based on age (for example, January, 2005 and forward) and file type (such as doc, mpp, pdf). Content not selected via the filter was not migrated into Documentum® but was instead archived for read-only access. This filter provided reports and error logs for control purposes.

An intelligent folder mapping Filter was used to automatically map multiple folder paths from the legacy repository to a single room-cabinet-folder path in Documentum®, based on a set of business rules. Thus sets of folders could be mapped to the appropriate corresponding folder in the new repository.



Impact's Q-Transfer™ migration tool handled the final mapping and import of content and metadata into Documentum®. The tool's controls include checksums, to ensure no interim manipulation of content, along with reports and logs of import activity. At the time of import, metadata values which could not be derived from specific documents were defaulted for the batch of documents imported in a single run. Q-Transfer's™ GUI interface provides an easy way to identify and map such values.

### Processes

The migration process was built on Impact's proven A-C-E™ Migration Methodology and suite of migration tools, tailored to Dell's unique requirements and operating environment. The migration technology and process were tested in a dry run at Impact's Lab, then verified and refined in a user acceptance environment at Dell. Quality Assurance was handled via statistical sampling techniques along with verification of migration tool logs and counts.

Impact and Dell resources worked side by side during the on-site testing and the production migration of the first repository. This ensured that knowledge transfer and capability in the migration process could be transferred quickly from Impact to Dell resources. The final repository migrated during the Phase I process was handled entirely by Dell resources with Impact support available off-site.

### Collaboration

Dell and Impact corporate cultures share key operating principles which were critical in meeting the timelines for the Phase I migration. These include emphasis on teamwork, highly skilled and competent resources, minimal bureaucracy and inefficiency, and pride in quality and excellence in project management and delivery of results. In this environment, the organizations within Dell and Impact as well as across the two companies worked collaboratively and effectively to achieve results.

## Outcomes / benefits realized

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At-risk product documents of a sensitive and critical nature to Dell's business are now safely stored in a scalable document repository, with appropriate controls.

Historic documents, not in active use, have been archived for read-only use.

A repeatable migration process has been established, tested, and proven in the production environment. Significant cost savings plus the flexibility to handle multiple source application structures were created by this approach. Dell resources can now execute additional repository migrations independent of Impact involvement, in accord with Dell's internal business priorities and timelines.

Phase I migration was completed and the tools and processes proven for multiple repositories. 351,583 documents were filtered to 63,965 documents with 53,349 MB data imported into the new Documentum® repository. Remaining product group document repositories can now be migrated following the same process.

## Summary

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Dell faced a challenge to migrate over 500 repositories that were based on home grown applications, file shares and other content management systems into a single repository based on EMC® Documentum® technology. The challenge was met by developing a repeatable migration process with appropriate tools. Phase I successfully completed with three repositories using the migration process. Dell resources are not only trained on the process for future use but completed one of the repositories on their own as the final step of Phase I migration.

In addition the migration tool will be used for bulk loading of documents during other document management deployments within Dell.

## About Impact Systems

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Founded in 1996, Impact Systems, Inc. focuses on the deployment and migration of Enterprise Content Management (ECM) systems. Impact Systems has developed a proven, comprehensive migration process, including an upfront Migration Analysis Assessment and a proprietary suite of migration software tools (Q-Config™, Q-Transfer™) and the multi-step A-C-E™ Implementation Methodology for end-to-end solutions. This software and methodology allows for the migration of configuration, content, metadata and related templates, policies and rules across ECM (EMC Documentum, FileNet, Open Text, Lotus Notes and SharePoint) platforms, based on a proven, best practice process. Impact Systems has delivered complex migration solutions to satisfied clients in the life sciences, manufacturing, technology and financial services markets, while meeting strict regulatory requirements. Additionally, Impact Systems has Solution Centers in the U.S, India and Switzerland to provide cost effective migration implementation project support around the clock. Impact Systems is a member of the EMC2 Consulting/Select Services Team, and is an Adobe® and Kofax partner.