

# Kimberly-Clark

## Kimberly-Clark softens downtime impact with EMC

### BUSINESS VALUE HIGHLIGHTS

**Profile:** Kimberly-Clark Corporation is the world's leading maker of personal paper products. Best known for brand names such as Kleenex, Scott, and Huggies, Kimberly-Clark sells consumer products such as facial and bathroom tissues, paper towels, and other household items in more than 150 countries. Nearly a quarter of the world's population—1.3 billion people—rely on Kimberly-Clark products to enhance their health, hygiene and well-being each day.

**Challenge:** The company's growth and storage expansion required it to implement a business continuity strategy that would improve recovery time, information availability, and more efficient data management while containing costs. Kimberly-Clark turned to EMC to implement a multisite disaster recovery solution that utilizes EMC Symmetrix DMX, EMC SRDF/S, EMC Centera storage, and EMC Centera HSM Migrator software in an IBM DB2 environment.

**Business value:** With EMC Services, EMC Symmetrix DMX, EMC SRDF/S, EMC Centera, and EMC Centera HSM Migrator software, Kimberly-Clark achieved:

- Improved recovery time of SAP applications from four days to four hours
- Diminished data loss exposure from up to 24 hours to zero
- Selective duplexing of DB2 data sets reduced tape media and hardware requirements by 50 percent
- Reduced tape backup strain on mainframe, improving system performance
- Easy integration with IBM DFSMSHsm software and tape environment, allowing for more efficient usage of existing resources

Kimberly-Clark Corporation, the world's leading maker of personal paper products, is best known for brand names such as Kleenex, Scott, and Huggies, among other personal care and household products. Since 1992, Kimberly-Clark has strengthened its competitive edge by making 50 strategic acquisitions and divestitures. Accompanying this expansion has been dramatic growth in the company's storage infrastructure, which has tripled in size in 2005.

This growth, combined with the need to more efficiently and cost-effectively protect growing information capacities, led to Kimberly-Clark's development of a multisite disaster recovery solution. Deployed with the assistance of EMC® Services, the new business continuity

### SOLUTION SNAPSHOT

- **Primary Applications:** SAP customer relationship management, manufacturing, business warehousing, and human resources; Exchange 2003; SQL 2000
- **EMC Software:** EMC Centera Mainframe HSM Migrator, EMC TimeFinder®, EMC SRDF/S, EMC ControlCenter® (EMC StorageScope™), EMC Powerpath®, EMC Symmetrix Optimizer, EMC SnapView™, EMC Navisphere®, and EMC MirrorView
- **EMC Storage:** 600-terabyte EMC storage infrastructure, including EMC Symmetrix DMX™, EMC CLARiiON CX with Fibre Channel drive, EMC CDL with Fibre Channel and ATA drives, EMC Centera™
- **Processing Environment:** IBM mainframes, Windows 2000 and 2003, and UNIX servers
- **EMC Services:** EMC Design, Planning, Implementation and Residency Services

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infrastructure utilizes EMC Centera™ content-addressed storage (CAS) and Centera HSM Migrator Software to back up and remotely mirror SAP enterprise resource planning (ERP) log data in an IBM DB2 mainframe environment. Since going into production, the EMC solution has improved recovery times, reduced tape expenditures, and streamlined backup processes.

Steve Clausung, a Kimberly-Clark Senior Analyst, said, “With the assistance of EMC, our new business continuity solution has dramatically improved protection of our critical SAP application data. In the event of a data center outage, we’ve shrunk our recovery time from up to four days to a few hours without any data loss exposure. Because our data protection is more automated and reliable, we’ve realized significant savings in tape media expense and staff time that used to be required to manage our former tape backup process. The openness of EMC’s Centera and HSM Migrator technologies allowed us to fully and easily integrate the new solution with our IBM mainframe and tape environments. In addition, to better data backup and mirroring, EMC Centera’s excellent reliability and high performance also contributed to improved availability of our information.”

### **Openness eases integration with mainframe and tape environments**

Before implementing EMC Centera, Kimberly-Clark used IBM DFSMSHsm (Data Facility Storage Management Subsystem) software to back up IBM MVS mainframe data sets to tape and then sent these tapes to a disaster recovery site. In the event of a complete outage, the process of fully restoring systems could take up to four days with the potential of 24 hours of data loss exposure.

“As our mainframe environment grew, the time to restore our applications was also increasing,” said Clausung. “While EMC’s SRDF/S provided a great solution to replicate our critical data stored on disk, we needed a solution to replicate what we considered critical data stored on tape. We conducted an exhaustive search of our options, ranging from keeping all of the data sets on disk, sending the data directly to tape, and virtual tape. Most of the options were inadequate because of the high maintenance expense or infrastructure investments that would have been required. Most importantly, they couldn’t deliver the recovery improvements we needed at a cost-effective price.”

Says Clausung, “In the end, we chose EMC’s Centera Mainframe HSM Migrator software and EMC Centera systems because of EMC’s proven expertise in business continuance and IBM mainframe environments, as well as the robust functionality of the EMC solution. EMC’s Centera Mainframe HSM Migrator software and EMC Centera systems were very easy to integrate with IBM’s DFSMSHsm software. This allowed our new solution to communicate seamlessly with our mainframe and tape environments without having to install additional connectivity. And having worked previously with EMC, we had full confidence in their software, storage, and service capabilities.”

### **Services involvement facilitated smooth and effective deployment**

EMC Services collaborated with Kimberly-Clark in all facets of the multisite disaster recovery engagement. First, EMC analyzed how Kimberly-Clark was using its storage software and hardware resources. Next, EMC designed a multisite solution taking into account the I/O activity and bandwidth requirements that would be needed to replicate the application data across data centers and the storage and software that would be required. Finally, EMC Services helped implement the solution, including the building of a test lab to test the final design. EMC also provided Kimberly-Clark with an onsite project manager who coordinated all the resources throughout the entire engagement.

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Clausing remarked, “The strong project management skills, depth of resources, and expertise demonstrated by EMC’s Services organization enabled a smooth and effective roll out. In addition to helping us with every phase of the deployment, EMC provided us with top-notch education and training so that our people could make a smooth transition to the new system. Our experience working with EMC Services has been excellent. The people there are professional, helpful, and always thinking about how to make our business run better.”

### **Diminishing recovery time—four days to four hours**

Kimberly-Clark relies on an SAP ERP solution to automate and run business-critical applications such as customer relationship management, manufacturing, business warehousing, and human resources. To protect these SAP modules, IBM’s mainframe generates DB2 transaction logs which contain all of the images or changes that have been made to the SAP application data. Kimberly-Clark needs to save these DB2 logs in an environment separate from the IBM mainframe running DB2 so that it can restore this data even if the production system is destroyed.

Before, Kimberly-Clark would create two copies of the DB2 logs on tape and send one copy to an offsite storage vault about 12 miles from its data center. If there was a complete data center failure, Kimberly-Clark would need to arrange for the tapes at the storage vault to be transported to a third-party disaster recovery vendor to handle the tape restoration. This process could take up to four days. In addition, because of the time lag between live production data and tape backups, up to 24 hours of the data would be missing from the restored tapes.

Now, Kimberly-Clark archives its SAP DB2 transaction logs to an EMC Centera system. First, IBM DFSMSHsm hierarchical storage manager software captures SAP DB2 datasets through its normal space management process. Next, EMC Centera Mainframe HSM Migrator, which is fully integrated with the IBM DFSMSHsm software, analyzes the naming conventions of the datasets and identifies a subset of them as primary DB2 transaction logs. The EMC Mainframe HSM Migrator software then directs the critical DB2 logs to EMC Centera and the non-critical files are backed up to tape. For added protection, EMC Centera then replicates the archived logs to another EMC Centera at the disaster recovery site.

According to Clausing, “Our SAP applications downtime is a costly proposition—every hour the application is unavailable equates to thousands of dollars lost. So the ability to recover all of our systems in four hours instead of four days and without any data loss is a huge competitive advantage. Our EMC business continuity solution helps ensure our manufacturing operates at full steam, our distribution lines are flowing, and employees maintain high productivity. We’re able to more reliably and successfully meet the needs of our internal users, distributors, and vendors, and ultimately, our consumer market.”

### **Online archiving improves mainframe performance**

Before EMC Centera, Kimberly-Clark recycled its tapes to keep tape media expenditures at bay. Nonetheless, tape recycling consumed not only significant IT staff time, but also was a drain on mainframe processing power.

At the start of the recycling process, Kimberly-Clark would first identify tapes that weren’t completely utilized or contained obsolete data. Then, Kimberly-Clark’s IT department would use DFSMSHsm software to move the valid data sets from these older tapes to new tapes and reassign the older tapes for reuse. When a DFSMSHsm tape data set was deleted, the data was not removed from the tape, but just marked as invalid. The old data set would then be considered obsolete, but still remain on the tape until the tape was identified for recycling.

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Clausing explained, “Tape recycling was not only very tedious and labor-intensive but it was a chief consumer of mainframe processing cycles because of all the copying and recopying onto tape that was required. Now, instead of saving all of our DFSMS data sets onto individual tapes, we archive our primary data sets to EMC Centera, which conducts its own space management dynamically. This has significantly reduced Kimberly-Clark’s requirements for tapes, tape drives, and CPU capacity, and as a result, eliminated our need to recycle tapes. By stopping the performance drain, we’ve been able to run more applications in our mainframe environment without having to purchase additional processing power.”

### **Selective duplexing slashes tape requirements by 50 percent**

Kimberly-Clark has saved a considerable amount in computer infrastructure costs because of EMC Centera Mainframe HSM Migrator’s ability to provide selective duplexing—copying—of data. Before, when Kimberly-Clark wanted to duplex only its primary DB2 transaction logs, the company would have to copy all of the logs—primary and non-critical—because IBM DFSMSHsm did not have the capability to generate partial copies.

“By using EMC Centera HSM Migrator, we’re able to archive 20 percent of the DFSMS datasets that are critical to EMC Centera for replication and send the remaining 80 percent to tape. Being able to selectively copy our datasets has reduced our DFSMSHsm requirements for tape media and hardware by about 50 percent,” says Clausing.

### **Faster access to DB2 logs improves company productivity**

Servicing requests and helping users get back up and running quickly after an outage is vital to a global 24x7 company like Kimberly-Clark. In the company’s old tape environment, locating, mounting, and positioning a tape to a specific place could take an appreciable amount of time. Now with EMC Centera, mounting and positioning time are not required.

“Our company’s success depends on its business continuity,” said Clausing. “With EMC, our SAP applications and corresponding DB2 logs are much more available due to EMC Centera’s excellent performance and recall times, which are significantly faster than our previous tape environment. This lets users get back to work quickly so that company productivity is not affected.”

### **Shared storage pool extends investment value**

To extend the value of its EMC Centera content-addressed storage investment even further, Kimberly-Clark uses ZANTAZ software to archive older Microsoft Exchange 2003 e-mails from EMC CLARiiON® production storage to EMC Centera. Exchange or SAP applications can access the same shared EMC Centera pool of storage as opposed to being limited by fixed allocations. Because it is an IP-based storage solution, EMC Centera attached easily to Kimberly-Clark’s existing network.

Clausing remarked, “EMC Centera’s ability to support both our open systems and mainframe applications in a single system is a phenomenal benefit from a cost, capacity management, and scalability standpoint. If Exchange, for example, grows more quickly than our SAP transaction logs, then more of the shared Centera storage capacity can be used to support it. This allows us to be more responsive to our application needs and better utilize our storage investments.”

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## ILM strategy delivers customized protection levels at lower costs

A consumer products leader for more than 125 years, Kimberly-Clark fully understands the importance of protecting the company's vital business assets. The company has deployed an information lifecycle management (ILM) strategy where each tier of storage utilizes different replication and backup strategies to coincide with the value of the data and level of protection required. The EMC Centera and Centera HSM Migrator solution play a critical role in Kimberly-Clark's 250-terabyte and multi-tiered EMC infrastructure.

Kimberly-Clark stores its most critical SAP applications on EMC Symmetrix® high-end storage and midtier open systems applications, such as Microsoft Exchange and SQL 2000, on EMC CLARiiON CX series Fibre Channel storage. Using SRDF®/S and EMC MirrorView™ replication software, the company mirrors data to the remote disaster recovery site. At a third site dedicated exclusively to disk-based backup, Kimberly-Clark uses Tivoli Storage Manager to back up Microsoft Exchange, SQL, and other open systems applications to an EMC CLARiiON with integrated ATA disk drives. EMC Centera is the long-term archive tier for Kimberly-Clark's SAP DB2 logs and Microsoft Exchange.

Clausing concludes, "We consider EMC to be a true strategic partner and an integral part of our business. They have worked with us extensively to match our diverse requirements for availability, connectivity, and performance with the most appropriate and cost-effective storage solution. The EMC Centera and HSM Migrator solution is one of our most vivid examples of how dramatic improvements in information protection and performance can be achieved in a more productive and cost-efficient environment."



**EMC Corporation**  
Hopkinton  
Massachusetts  
01748-9103  
1-508-435-1000  
In North America 1-866-464-7381

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