



CASE STUDY

Encryption Mandate Moves
CDG to IBM's XIV



Consolidation and simplified management

THE COMPANY

A pioneer in the field of Carrier Access Billing (CABS), CDG has been involved in bill processing for the telecommunications industry since the early 1970s. Headquartered in Champaign, Illinois, CDG has evolved with the demands of the industry and maintains a state-of-the-art data center.

The company maintains a disaster recovery site in Chicago and began annual disaster recovery testing in 1992.

THE NEED: Encrypt all customer data.

Concerned with the growing number of data breaches occurring around the world, CDG's customers demanded that the company encrypt all data by January 1, 2016. Because CDG's infrastructure relied on an IBM DS8700 along with Dell storage servers, encryption was going to be a big challenge.

The CDG IT environment includes an IBM System z along with IBM Power and x86 servers. What the environment does not include is a team solely dedicated to managing storage. Any solution for the encrypted storage requirement needed to be so easy to manage

that it added little or no workload for the IT staff. Yet another complication in the situation was the approaching end of lease for the DS8700.

Jim Catlin, Operations and IT Manager for CDG, discussed storage options with Shawn Snyder, Senior Account Executive with LRS IT Solutions. As Jim recalled, they talked about the IBM Storwize V7000, which also offers encryption, before having several discussions about the XIV Storage System.

"We had several discussions about the XIV and the encryption it provides as well as the growth it could offer," Jim said. They also discussed the importance of simplified storage management.

THE SOLUTION: Consolidate all storage onto IBM XIV.

Unique among IBM products, the XIV Storage System offers hot encryption. This means that when encryption is enabled on the XIV, all data that resides on the XIV is encrypted within minutes, with no performance impact and no reload of data after encryption is turned on.

Another important consideration for a company like CDG is the streamlined

storage management offered by the XIV as well as replication to make disaster recovery more cost effective and simpler. "The XIV is a very simple storage system to manage," noted Shawn.

With its customer-acclaimed graphical user interface (GUI) complemented by a powerful command line interface (CLI), as well as a robust, easy-to-use set of tools, XIV storage transforms typically cumbersome, unwieldy tasks such as provisioning, copy services, multisystem management and monitoring into simple point-and-click operations.

Revolutionary ease of management means system setup and configuration can be done in a single day, personnel training is often cut down from weeks to hours and migrating data from legacy systems is no longer the nightmare it often is with traditional systems.

The IBM XIV storage system also offered CDG the opportunity to consolidate storage on a single platform, a big plus in Jim Catlin's mind.

"We wanted to eliminate the multitude of storage types we had," he said.

"That was a factor in the decision to go with the XIV."

"The IBM XIV is a very simple storage system to manage."

— Shawn Snyder

The proposed solution would consolidate eight storage devices to two.

THE RESULT: Encryption, consolidation, and replication

The LRS IT Solutions team installed an IBM XIV storage system in the Champaign data center and another in the company's Chicago area DR facility. The company implemented XIV storage for the Power and x86 servers immediately; adding the System z was tackled later due to the necessary conversion of disk architecture.

To work with the XIV, CDG is taking several months to change the System z from count-key data architecture to fixed block data architecture.

The LRS team also designed a replication solution for improved resilience and availability as well as failover capability. Jim described the replication solution as "flawless" and also mentioned improved recovery times.

In preliminary testing, the Power and x86 servers were available in about four hours, down from as much as 12 hours. The CDG team will continue working to reduce that amount of time.

Jim had praise for the LRS IT Solutions team, from Shawn Snyder's initial suggestion of the

XIV to technical assistance provided by Scott Perkins, Storage Solutions Consultant, and Andy Thomas, Systems and Storage Solution Consultant. Recalling a planning meeting involving staff from CDG and IBM as well as LRS IT Solutions, Jim described Scott's thoughts on what CDG needed to do to upgrade its storage, "and it was exactly what needed to be done."

He also said that Andy provided valuable help to CDG during initial DR testing.

"Andy was with us for the first full day of the DR test and helped us immensely," Jim recalled.

Jim also praised Shawn for focusing on CDG's needs.

"Shawn ponders the 'what-if' scenario," Jim said. "He really thinks outside the box."

Those are all reasons why Jim considers LRS IT Solutions to be a business partner instead of simply a vendor. "I look for business partners who can provide what I need to improve things tremendously or save money," Jim said.

ACCOMPLISHED SECURITY GOALS

- Met encryption deadline
- IBM XIV storage systems in data center and remote DR site
- Consolidated storage on single platform
- Consolidated 8 storage devices to 2
- Replication with improved resilience, availability, and failover capability

SOLUTIONS

- Complete IT solutions, including server consolidation, storage management, business continuance services, and disaster recovery planning
- Full-service consultation from education and research to installation implementation and training
- Professional sales staff and knowledgeable technical teams
- Nearly 30 years of experience in implementing IT solutions
- IBM Premier Business Partner



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