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Computer Control Systems Searches for a Solution to Server Downtime



Computer Control Systems, Inc. (CCS) provides a wide range of information management outsourcing services to customers in the finance, health and energy industries. Given the highly competitive nature of their business, CCS is committed to providing quality service as a way to differentiate themselves with their customers. One of the keys to CCS's ability to provide quality service is their commitment to advanced technology.

In February of 1997, CCS experienced a failure on one of their most important Novell NetWare servers. This particular server was running the accounting applications for CCS. Access to these applications is essential for CCS employees to perform their jobs and for the company to transact business. CCS had a full backup of all the data but the restore process still took a painfully long time. The problem with the recovery was the age and complexity of the database and the auxiliary functions associated with it. A full system recovery would disrupt all print and file services for more than an hour and the system would be back-leveled to the date and time of the backup. While a partial recovery would restore these functions, the database would require additional cleanup and re-synchronization that may also require more than an

hour. The only choice was a partial recovery. During this time, the employees were unproductive, customers had to wait for responses to their inquiries, and the IT department had to put its other projects on hold. This incident raised a red flag with CCS. They knew that they had to limit their vulnerability to this type of downtime if they were going to be able to provide the type of customer service they were known for.

Kevin Harris, Vice President of Operations was given the task of finding a solution to this problem. Kevin's background included many years of IT experience in the mainframe world and he knew that solutions to this problem had been available for years in that environment. Mr. Harris began to investigate potential solutions to this problem for the LAN arena. He was familiar with several of the high-availability solutions that were on the market. He identified several criteria that he viewed as critical for CCS when choosing which product to deploy to protect their LAN resources. They needed a product that covered multiple network operating systems. Even though the failure they had experienced was on a NetWare server, CCS has several other Windows NT servers that were just as vulnerable to this type of downtime.

Kevin also wanted to be sure that the feature set and functionality of the product was similar between the multiple versions of the product. If the products were radically different from one operating system to the next, it meant that the training time and on-going use of the products would be more difficult.

An additional requirement was that the product be able to provide disaster recovery capabilities by keeping a mirrored copy of the server in another of CCS's three locations. CCS needed to be sure that in the event of a natural disaster, their data and applications would be safe and accessible.



*Kevin Harris, Vice President of Operations
Computer Control Systems, Inc.*

After evaluating several other solutions, CCS chose NSI® Software's Double-Take® products to address their needs. "Double-Take was able to address all the product requirements that we had established and their support personnel were knowledgeable and helpful both before and after the sale," said Kevin Harris. "The support that NSI provided was a critical factor in our decision to implement Double-Take."

Computer Control Systems used Double-Take to design a powerful, fault-tolerant LAN environment that greatly reduces their vulnerability to downtime. CCS has several different sites that are all connected to one another. In their main building, they occupy the 12th floor and also have space in the basement. They use Double-Take to replicate the data from the 12th floor systems to systems in the basement. If any of the systems on the 12th floor fail, there is a machine in the basement that can stand in for the failed server. This means that users are still productive and they have full access to all the data and applications they had before the server failure.

In addition to the main building, CCS also has another site in the Galleria area of Houston about 8 miles away. This site is connected by a T1 line to CCS's main building. CCS uses Double-Take to replicate data from this site back to the main building so that in the event of a server failure or natural disaster, the data from the remote location is safe. Similarly, CCS also uses that same T1 link to replicate critical data from the main site to servers at the remote site. This provides disaster recovery capabilities if the main building is ever subject to a flood, fire or other disaster.

This type of replication between physically remote sites is made possible by Double-Take's unique communication architecture. First, Double-Take greatly limits the amount of data that needs to be transmitted over this link by only sending the changed data (file deltas), not the entire file. For example, when a 5K record is changed in a 200MB database, only the 5K record needs to be transmitted over the network, not the entire database. Also, Double-Take has been engineered to handle the frequent interruptions and slower speeds

of wide area connections. "We now have a T1 line that links our sites but even when the link was an ISDN line, Double-Take was still able to perform the mirroring and replication tasks across our WAN," said Harris.

Computer Control Systems has built their business on superior customer service and getting the job done right. When they needed a disaster recovery solution that combined high availability for their critical LAN data, they chose NSI Software's Double-Take.

Computer Control Systems, Inc.	
<i>Installation at a glance</i>	
Network Operating Systems	Novell Netware Versions 3.12 and 4.1 Microsoft Windows NT 4.0
NSI Software Product	Double-Take for Netware Double-Take for Windows NT
Primary Application	Disaster Recovery High Availability

Important facts about Computer Control Systems, Inc.

- ▶ Computer Control Systems was founded in 1966.
- ▶ CCS is a leading provider of information management outsourcing services.
- ▶ Specialists in data management, computer applications and direct mail services.
- ▶ Provides service to companies in the finance, health and energy industries.



NSI Software
Two Hudson Place, Suite 700
Hoboken NJ 07030
800-775-8674

<http://www.nsisw.com>