

Playing It Safe

IPC helps Benchmark Community Bank utilize virtualization to take the adventure out of disaster recovery planning.

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Roald Amundsen’s numerous exploits included the first successful expedition to the South Pole and the first trans-Arctic flight across the North Pole, yet the legendary Norwegian explorer did not think of himself as an “adventurer.”

“Adventure is just bad planning,” he once said.

Disaster recovery planning can help ensure that business operations do not become an adventure in the face of a major disruptive event. However, older technologies can make the journey difficult and

expensive. In a typical environment, data is backed up to tape so that it can be restored in the event of a natural disaster, human error or system failure. Trouble is, tape backup can be problematic, and hardware incompatibilities can delay system and data recovery operations.

Benchmark Community Bank (BCB) was all too familiar with these challenges and wanted to implement a new disaster recovery solution based upon virtualization. The bank turned to IPC Technologies for help in charting a course toward a virtualized environment with data replication and failover capabilities.

IPC and ShoreTel help BCB Cut Costs, Streamline Operations

Benchmark Community Bank is the largest bank focused exclusively on serving Southside Virginia. Founded in 1971, BCB is a full-service, progressive financial institution that is integrally involved in each of the communities it serves. It is locally owned and operated, and hires local residents who share the bank's strong sense of community. Starting with one location in Kenbridge, Va., the bank has grown to 12 locations spread across six Southside Virginia counties.

BCB's 125 employees pride themselves on delivering exceptional customer service, so strong communication is essential across bank operations. However, the bank's old phone system was not suited to the needs of a busy, 12-location operation.

In 2005, BCB asked IPC Technologies to implement a new ShoreTel voice over IP (VoIP) phone system. The ShoreTel solution replaced the traditional PBX and enabled the bank to consolidate its voice communications onto its data network.

"We were calling long-distance from the main office to all but one of our branches, and the ShoreTel system eliminated those costs," said BCB CFO Neil Burke. "In addition to enabling extension dialing to any employee at any branch, the system routes calls so that we can make local calls to any of our markets."

The ShoreTel system offers many other features that help increase efficiency and enable the BCB team to respond rapidly to customer needs. IPC and ShoreTel help BCB maintain a strong local presence yet function as one, streamlined operation.

"We needed to upgrade one or two of our servers that were rather expensive, so we decided to go ahead and buy all new servers and utilize virtualization. We felt virtualization could provide us with better management, greater redundancy, and the ability to recover quickly from any type of incident," said BCB CFO Neil Burke.

"IPC had implemented a new phone system for us in 2005, and we have utilized their TechFirst managed services since 2008. We decided to stay with them for this project because they are close by and have helped us for many years, and that's been positive for us."

Keeping It Simple

It's easy to make a business case for virtualization. A study by research firm IDC found that organizations deploying basic virtualization enjoyed an average ROI of 472 percent and payback in less than a year — including deployment time. That's because virtualization, by definition, enables organizations to do more with less. In essence, virtualization allows organizations to consolidate the workloads of multiple, physical servers onto a single machine. It provides a logical rather than physical view of IT resources, making it possible to get more value out of less gear.

It's not just a matter of hardware costs. The total cost of ownership justification for replacing a number of low-end or legacy servers with fewer high-end systems is well documented. Server consolidation also relieves complexity, reduces the data center footprint, simplifies management, enables greater control of computing resources, and provides the flexibility and scalability to meet changing business demands.

"We were able to consolidate 18 servers down to five — three servers and a disk array in our headquarters, and two servers and a disk array for failover at our backup site," said Burke. "It's a lot easier to manage because there's a lot less equipment to deal with. And it helps tremendously with disaster recovery."

A virtualization platform improves disaster recovery readiness by creating hardware independence. In a non-virtualized environment, data replication must occur between like hosts. By abstracting the operating system from the hardware layer, virtualization allows IT shops to replicate asymmetrically — that is, without having to provide a matching host at the disaster recovery site — making offsite disaster recovery cost-effective.

Mitigating Risks

Before virtualization, BCB had a very typical disaster recovery solution. Data was backed up to tape, and as servers were replaced the older equipment was relegated to the backup site. Recovery was difficult and time-consuming.

"As servers would age we would move them to the backup site. But you end up with older equipment over there and run into compatibility issues. The hardware and software at the backup site didn't mirror what we had at the primary site and that caused some problems," Burke said. "Plus, tape backups would sometimes fail or the tape drive in the primary server would use a different type of tape than the drive in the back-

up server. We had to work around all of those issues.”

Now, the bank’s backup site has new server hardware running a virtualization platform that can readily support the virtual machines at the primary site. Data is replicated to the backup site on an hourly basis. Should disaster strike, BCB can rapidly transfer operations over to the equipment and data at the backup site.

“Virtualization did away with the problems of having outdated equipment at the backup site and different types and ages of equipment throughout the environment. It really helped consolidate all that,” Burke said. “All of the hassles have been eliminated and it’s a much more cost-effective way of handling things.”

IPC designed the infrastructure on Dell equipment — servers, switches and storage. The Dell EqualLogic storage platform in particular met the bank’s unique requirements.

“Several years ago IPC chose Dell EqualLogic as our primary storage solution because of its virtualized storage capabilities and its ability to snapshot and replicate across physical locations. We also appreciate its reliability and the fact that it’s an all-inclusive solution so you don’t have to license the individual software components for storage,” said Kurt Wright, Director of TechFirst Operations, and certified Dell EqualLogic Engineer.

“The solution we built for BCB replicates the entire data structure for the bank’s line of business applications between the primary location and the hot site. If there’s a failure at the primary location, the replication has already occurred. We can bring the virtual servers online at the hot site with a 15-minute lag time on data. When the hot site goes live, it tracks changes until the primary site comes back on. It then performs

what’s called a fast failback and replicates the modified data back to the primary site. That’s unique to the solution.”

Consider It Done

BCB knew of other financial institutions that were utilizing virtualization to improve the disaster recovery environment. IPC helped the bank explore various options and provided guidance in the design and implementation of a virtualization solution that would meet its needs.

“We had them come in and do a demonstration — to show us what virtualization does and does not do and explain to us how they would set it up. We had a general idea of how it would work but they partnered with us to help explain the ins and outs of it,” Burke said. “They worked side-by-side with our network administrator during the installation, and provided him with training so that he can run with it. Of course, they’re there to support us if we have any issues.”

A spirit of adventure can lead to innovation in the business world, but there is no place for uncertainty or risk when it comes to disaster planning. Virtualization technology can dramatically minimize risk by ensuring that the disaster recovery process is executed rapidly, correctly and cost-efficiently, and with the least impact to operations. IPC Technologies has helped BCB improve its disaster recovery planning with virtualization and forge ahead with other pioneering technology solutions.

“We went with IPC for voice over IP in 2005, for TechFirst in 2008 and now for virtualization,” said Burke. “They’ve certainly been go-to support for us, providing us with some hardware and software solutions that have really benefited our operations.”



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