

# DATABASE

## TRENDS AND APPLICATIONS

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## Financial Institution Opts for INNOVATION Solutions

### *New backup technology helps company manage IT growth*

Tom Becchetti is a senior engineer and storage architect at a large financial institution located in the Midwest. Now an independent publicly traded company, over the past three years, the company has been growing at a rate of 40 percent a year.

The independence and growth has led to a dramatic expansion of the information infrastructure. "We have gone from having 150 servers to over 600 servers," Becchetti said. The company supports a smaller mainframe computer, as well as AIX, Tandem, Windows and Linux servers. Storage has increased from 10 TB of disk space to over 100 TB of disk space. And the company has built a fully redundant second data center to address business continuance needs.

#### **The Challenge of Growth**

In the face of this growth, Becchetti examined his storage backup environment, which made extensive use of tape back up. What was in place, he found, was both costly and unreliable. Tape and robotics, he said, adds both cost and complexity. "There are a lot of moving parts and pieces that make your backups less reliable," he said.

Furthermore, he noted, most of the backup products had what he called an Achilles heel. "They have one large database for all of the backups," he observed. "That database is often the single largest database in the shop." Databases, he added, take a lot of care and feeding.

#### **Exploring Alternatives**

As Becchetti explored his options, he turned to Innovation Data Processing. INNOVATION provides business data protection, non-disruptive business continuance and business resiliency solutions for IBM System z, z/OS, Linux on System z, UNIX on System z, and attached enterprise storage, as well as for Windows, UNIX and Linux, SAN, NAS and LAN direct-attach as well as distributed storage. Becchetti opted for INNOVATION's FDR/Upstream Reservoir, a high performance storage management product for

centralizing and automating, unattended backup/restore and archiving. "It eliminates those two major headaches," he said. "I am backing up to disk. And they have a distributed database architecture so you can really scale it."

The company uses FDR/Upstream Reservoir to backup its data to a Clariion storage system across its high speed network and to its remote data facility. At the same time, the remote facility data is backed up in the primary data center. "FDR/Upstream Reservoir" took five minutes to install and run," he said, "You can build a new server in five minutes and restore a server with one command." Not only did the company get a more reliable product that was easier to use, Becchetti said, its three-year ROI was positive.

Moreover, the company was able to establish a Reservoir server that interfaces with Oracle RMAN specifically for DBAs. "We carved them up their own space," Becchetti said, so DBAs can manage their own storage functions.

#### **Additional INNOVATION Solutions**

For long term archiving information Becchetti also uses a version of FDR/Upstream that uses the mainframe as the backup server. Mainframes have worked with tape from day one, he noted. "It is a very reliable environment and it is consistently implemented." Moreover, he added, storage technology in the mainframe environment is more stable than in the open systems arena.

In addition, the company is using INNOVATION's FDRPAS, which can migrate entire DASD controllers, hundreds of volumes a day and can be used for daily I/O load balancing in the mainframe environment. "FDRPAS is simpler than competitive products and more reliable. You can migrate storage on the fly," Becchetti said.

#### **Innovative Products**

Becchetti's company was one of the first to move to disk based backups. "The only failures we ever had was when we would run out of space in a

particular pool," he said. So working with INNOVATION, they developed what he calls a "spare tank" for UPSTREAM Reservoir-- so if the primary backup was full, data would be directed to the spare tank. Not only does it eliminate failure, it allows the company to quickly identify where storage space may need to be added.

Becchetti is also anticipating the release of INNOVATION's duplicate file checking; ie de-duplication technology. This feature has been available in the mainframe version of FDR/UPSTREAM since the 1990's and is in development now for UPSTREAM Reservoir. "De-duplication is huge," he said. For example, a Windows install involves around 80,000 files, most of which never change. With 200 to 300 Windows servers, the company will be able to store a single copy of most of those files. "This could be a huge saving," he said. "We are expecting INNOVATION's de-duplication technology will be released in the March timeframe."

#### **Working with INNOVATION**

Becchetti has been working with INNOVATION products for more than 25 years. "Working with the whole suite has been nothing but a pleasure," he said. "They keep their products as simple as they can to achieve what you need to do. They are among the best performing products I have ever used and their support is unsurpassed." "Every time I call, I usually talk to somebody who has developed the code," he noted. "I have never seen this kind of support from any other company I have worked with. It is a great working relationship with INNOVATION."

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