

CASE STUDY:

Backing Up a Non-Profit Organization's Data

Like most non-profit organizations, McKinney Fellowship relies on the efforts of volunteers. But when the Fellowship was setting up their Mother's Day Out program, a full week's worth of volunteer time and effort was lost when backup data could not be recovered.

The challenge: to find the optimal method to backup and then recover important data in such a multi-user, multi-platform environment.

When talking platforms and applications, McKinney Fellowship has a lot in common with many small businesses as well as churches: Microsoft Windows 2003 based servers, Windows XP workstations and laptops, SQL Server databases and Exchange.

The Fellowship's information system, ShelbyChurch from Shelby Systems, keeps track of such things as membership data, attendance, contributions, volunteer resources, calendars and other critical data. And volunteers handling such data can range from advanced programmers to soccer moms and choir directors.

Kevin Miller, director of technology at McKinney Fellowship, says that in this setting, a tape-based backup system was not practical. "We maintain approximately 85 systems, including a full-time staff of 25 employees, 40 part-time workers, and many, many volunteers. As an IT department of one, I can't possibly manage daily backups for all that data. It was simply too time-consuming to set up the various backup programs, run backups, manage tapes, and chase down errors. The advantages of newer online backup was what we needed."

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**Kevin Miller
Director of Technology
McKinney Fellowship**

Miller notes, however, that the organization's first experience with online backup was not totally seamless. "Not all internet-based backup technologies are the same. Our original service was built on a client-based software product that required a fair amount of administration. I actually had to sit down at each one of our systems to set up a program to poll the databases. If the scripts ran properly, backups were created and then dumped to a shared drive on our file server. Only after everything was consolidated onto the file server, could we back up that system via the online service. And the process still required manual intervention for a number of our applications. To back up the point-of-sale system at the bistro, for example, we had to have a person on-site to initiate the process. Another major inconvenience was having to manually shut down the databases during backup processes."

The solution: next-generation online data backup and recovery services with ServerSafe technology from NetMass

Miller says that a move to an online backup/recovery service from NetMass, a company based in Dallas, resolved those issues. "The NetMass service enabled automated, daily incremental backups of all our critical church systems: the SQL-based Shelby church management system, the bistro point-of-sale system (a Microsoft Office Access database), a library system with a proprietary integrated database, a worship presentation system utilizing Microsoft PowerPoint and MediaComplete's MediaShout software, and numerous group databases for the Hope4Life counseling center, the Mother's Day Out program, sermon archives and other programs. The

online backup/recovery service protects data from a Linux Red Hat Fedora Core spam server, and a variety of Windows platforms including DNS, DHCP, print, SQL, Exchange, file servers, web servers, and user workstations.”

Miller says the NetMass online backup/recovery service offers important benefits:

Automated backup and offsite storage. “We no longer have to be concerned that one of our volunteers forgot to initiate backup, that the utility is not running, or that a system rebooted and didn’t come up right,” Miller said. “The NetMass software automatically pulls data from each system and notifies me if there is a problem with any backup. And it’s agentless, so we don’t have to take time to install and maintain software on every computer, laptop, server and workstation.”

How important is offsite storage? Explains Miller: “We have to be able to access our financial data. When we were dependent on tape backups, I was constantly uneasy, wondering how we’d be able to produce important contribution records, for example, in the event of a major fire or other site-wide disaster. That’s no longer a concern, as NetMass backs up data offsite to their secure data centers.”

Rapid data recovery. Miller describes before-and-after recovery. “When we initially set up our Mother’s Day Out program online, we were not using NetMass. The first time we needed to recover data, we couldn’t locate a valid backup tape. The result was a week’s worth of lost work—and it could have been more had the team been further into the program.

“In contrast, with NetMass, we’ve been able to restore everything requested. Last July, for example, a file server crash presented a good opportunity to test restorability. It worked, and we recovered all of the requested data within an hour. In most cases, it takes less than five minutes to recover a file. That’s a lot faster than searching through tapes, and we have the assurance that backups are valid. Now that we utilize Exchange for our mail service, it’s also helpful that software lets us restore individual messages.”

“Hot” database backup. Miller notes that although Sunday will always be busy day, other days of the week see plenty of activity. “Contributions, prayer requests, email messages come in all the time. And we now have group activities scheduled throughout the week, so members utilize systems every day to track attendance, produce reports, respond to requests for information or assistance, and so on. With the bandwidth throttling that is available in the NetMass solution, we can schedule backups as needed without interrupting any church business. If we make a database modification in the middle of the day, for example, we can back it up immediately without stopping ongoing activities.”

Information security and privacy. Miller notes that password protection and the availability of up to 256-bit AES “in-flight” and “at-rest” encryption features add to the security of data transfer and storage. “While public-company regulations such as Sarbanes-Oxley do not apply to McKinney Fellowship, the non-profit organization must be diligent about protecting its financial records and maintaining the confidentiality of personal information.”

Simplified management with agentless technology. “NetMass software simplifies both set-up and ongoing management of system backups by eliminating the high-touch client installation and maintenance requirements associated with agent-based products.”

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Minimal administration. “Although our IT staff has now grown to include a full-time database administrator and a part-time technical support person, we still do not have surplus resources to devote to backup/recovery processes,” comments Miller. “So it’s a major benefit to have backups automated and data recovery streamlined. The time savings is probably most dramatic on the data recovery side. The example I gave of losing the Mother’s Day Out backup? In that particular case I spent two days working on the problem—and when all was said and done, I still couldn’t recover the data. Now we have confidence that we have valid, up-to-date backups. Recovery is almost instantaneous, and the process requires minimal staff resources.”

Heterogeneous platform and application support. “The NetMass solution enables seamless backup of all data, from Linux and Windows servers, as well as desktop systems. One of our senior pastors writes all of his sermons on his laptop,” comments Miller. “Even though we’ve warned him he’d be in real trouble if he ever dropped that laptop, we’ve never succeeded in getting him to move his files to our central server. Now, with NetMass, he doesn’t have to—whether he’s in his office or at a hotel for a conference, he can easily back up his laptop data over the Internet.”

Seamless scalability to support new venues and programs. “As we introduce new venues and delivery methods for our services, we will be expanding our systems and storage capacity. Having the NetMass online backup/recovery service ensures that we can continue to seamlessly protect data even as we grow our infrastructure to support new church programs such as web-based services. Compared to scaling a tape-based backup solution, the online service offers the benefits of immediacy and cost efficiency—we don’t have to worry about the time delays and costs associated with buying, installing and managing more tapes and tape libraries.”

Miller adds that features such as compression and de-duplication ensure efficient utilization of available bandwidth, an important consideration in cost-effective scaling. And he’s confident that continued growth will not overburden the IT staff. “Churches typically add new programs or ministries, but they seldom add overhead and technical support. So automated backup/recovery processes that require minimal administrative resources are essential as we grow.”

How does he characterize the overall experience with the NetMass backup/recovery solution? “I can forget about it,” concludes Miller. “That’s the biggest benefit of the NetMass service. Every time we’ve had to restore data, it’s been there. I have high confidence in it and don’t see any downside for other churches or non-profit organizations considering a similar solution.”

McKinney Fellowship Bible Church

Located in McKinney, Texas, McKinney Fellowship Bible Church serves a membership of more than 2500 people. The church is a spiritual fellowship of people committed to making a difference in the community and world. Visit www.mcfbc.org for more information.

NetMass, Inc.

NetMass, the safe data company, provides companies of all sizes highly secure and reliable remote backup solutions. Leveraging the efficiencies of the Internet, the company’s software-based data backup service has been helping organizations realize secure offsite data protection, business continuity and regulatory compliance since 1998. With a robust lineup of products, NetMass delivers server backup, database backup, data storage, file sharing, remote access and disaster recovery services. NetMass, Inc. has offices in Dallas and Houston and has partners and clients around the world.