



# Backup Express

## Success Story: Mid-Carolina Electric Cooperative

### Backup Express Arms Mid-Carolina Electric Cooperative with the Power It Needs to Protect Critical Applications

#### Organizational Profile

- A not-for-profit electric distribution utility
- Over 40,000 member-owners

#### Business Needs

- Back up over 140 gigabytes of data each day
- Compatible with Oracle Real Application Clusters on Linux servers
- Back up and restore data in an Oracle database

#### Environment

- UNIX master server running AIX 4.3.3
- Four client-servers utilizing Oracle 9.2.01 on Red Hat Linux Advanced Server 2.1
- HP Surestore tape library using DLT tapes

#### Benefits

- Frequent full backup of vital utility data in minimum amount of time
- Takes advantage of clustering technology
- Provides seamless integration with Oracle RMAN

*"Backup Express provides us with dependable backup and restores. It allows us to back up all of our systems at once in the minimum amount of time."*

Gail Campbell  
Analyst

Mid-Carolina Electric Cooperative

#### The Challenge:

Electric cooperatives are putting consumers first because these companies are actually owned by the consumers they serve. As part of this emphasis on customer satisfaction, Mid-Carolina Electric Cooperative, Inc. (MCEC) takes the necessary steps to ensure that their systems are running reliably. When Application Systems Analyst Gail Campbell realized that she didn't have enough tape drives to back up the data from new Linux servers, she quickly searched for an innovative solution.

#### The Solution:

MCEC uses Backup Express to back up over 140 gigabytes of data each day utilizing a UNIX master server running AIX 4.3.3 and four client-servers utilizing Oracle 9.2.01 on Red Hat Linux Advanced Server 2.1. The data is backed up onto an HP Surestore tape library using DLT tapes. The tapes are then sent to an offsite location where they are stored for 10 days.

Along with the nightly backups, MCEC has a backup process that runs during the day as well. "Every day at noon, I run a job to back up a database on one of the Linux servers," Campbell explained. "All of our databases have been moved to our Storage Area Network (SAN) using Oracle Cluster file system. We use Oracle Recovery Manager (RMAN) to back up the database and then export it every night to become a part of the nightly backup." Backup Express offers an Oracle interface that provides seamless integration with Oracle RMAN. It uses utilities that were developed by Oracle to back up and restore data in an Oracle database either online or offline. Using Backup Express to back up Oracle databases provides significant performance advantages. It can compress data prior to transmission, back up multiple databases to multiple devices at the same time, and interleave more than one data stream onto a tape to sustain throughput.

#### The Benefits:

The company takes advantage of clustering technology, running Oracle Real Application Clusters with failover and load balancing on Linux servers. Backup Express is used to back up one of the servers on the cluster. The software provides clustering support so that if failover occurs during a backup job, the task will automatically retry and succeed on the other physical node. Campbell also appreciates the fact that she doesn't have to devote much time each week to administering Backup Express. "I receive an e-mail every day that notifies me when everything has been backed up."

MCEC has reported an excellent experience with Syncsort's technical support team. "Out of all the technical support groups that I've worked with, which include Red Hat, Dell, and Oracle, I think Syncsort is doing the best job. When



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I call Syncsort's technical support, I don't have to wait very long, they always seem to care about my problem, and they always follow up on an issue." Even with all of these features, there is a simple reason why Campbell uses Backup Express. "Backup Express provides us with dependable backup and restores," she stated. "It allows us to back up all of our systems at once in the minimum amount of time."

### About Backup Express:

Backup Express is an enterprise-wide backup and restore solution designed for UNIX, Windows, and NetWare environments and provides support for the broadest range of technologies and platforms. Backup Express is the only solution that supports any combination of UNIX, Windows, Netware, and NDMP/NAS in a SAN, performs backup of all data directly across the fibre network, dynamically shares all tape drives, and controls this single enterprise environment with a single catalog and easy to use GUI. Backup Express also supports all eight NDMP incrementals.

Backup Express's distributed architecture allows it to back up to any device in the network whether it is running UNIX, Linux, Windows, or NetWare, while maintaining a single central catalog for the entire enterprise. Backup Express can attach tape drives, including large automated libraries, at any server on the enterprise; dynamically allocate drives within a SAN; keep sensitive data off the network; and allow on-line backups of large database servers such as Oracle, SAP, MS Exchange, SQL Server, Sybase, DB2 and Lotus Notes. For more information, call 201-930-8200 or visit [www.syncsort.com](http://www.syncsort.com).