

North Carolina Electric Membership Corporation Powers Backup Processes with ExaGrid

CUSTOMER SUCCESS STORY



North Carolina's
Electric Cooperatives
Your Touchstone Energy® Cooperatives

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Steve Qualley
Sr. Systems Engineer
North Carolina Electric
Membership Corporation

Customer Overview

North Carolina's electric cooperatives provide reliable, safe and affordable energy and related services to more than 950,000 households and businesses in 93 of North Carolina's 100 counties. Each of the 26 cooperatives is member-owned, not-for-profit and overseen by a board of directors elected by the membership. The North Carolina Electric Membership Corporation consists of a family of corporations formed to support the state's 26 electric cooperatives. Together, these organizations serve more than 2.5 million North Carolinians with reliable, safe and affordable electricity.

Backing up Data to Disk a Challenge without Data Deduplication

North Carolina Electric Membership Corporation's IT department had been running its backups to disk each night, but fast data growth left the organization with only three days of retention.

“Restores were a huge hassle because most of our data was kept offsite on tape,” said Steve Qualley, senior systems engineer for North Carolina Electric Membership Corporation. “We liked the convenience of backing up to disk, but we needed a solution that would give us more retention and enable us to reduce our reliance on tape.”

Cost-effective ExaGrid System Speed Restores; Provides Deduplication to Increase Retention

After looking at several different solutions, the North Carolina Electric Membership Corporation chose ExaGrid's disk-based backup solution with data deduplication. The ExaGrid system works along with the organization's existing backup application, CA ARCserve Backup.

“The ExaGrid system gave us all the features we needed in a backup system and it was a good value. In fact, it was significantly less expensive than the other solutions we looked at,” said Jonathan Bell, systems administrator for North Carolina Electric Membership

Corporation. “We also liked ExaGrid's approach to data deduplication. ExaGrid's post-process data deduplication ensures the fastest backup times because it immediately sends the data to a landing zone before it dedupes it and keeps it in a compressed form, so restores are fast. Also, the deduplication happens in the background so it doesn't affect performance.”

Currently, the organization has over five weeks of retention on the ExaGrid system and growing, and its data deduplication rates are running as high as 670:1 for static data.

ExaGrid combines last backup compression along with data deduplication, which stores changes from backup to backup instead of storing full file copies. This unique approach reduces the disk space required by a range of 10:1 to 50:1 or more, delivering unparalleled cost savings and performance. ExaGrid delivers extremely fast backup performance because data is written directly to disk, and data deduplication is performed post-process after the data is stored to reduce data. ExaGrid is cost effective when a two-site system is used because its data deduplication technology moves only changes between sites, minimizing the amount of bandwidth needed.

Flexibility to Add Additional Systems for More Capacity, Data Replication

North Carolina Electric Membership Corporation currently copies the ExaGrid system to tape for offsite retention, but the organization is planning on purchasing a second ExaGrid system later this year

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to install in its disaster recovery site. Data will be replicated between the ExaGrid systems, enabling the company to recover more quickly in the event of an emergency. Qualley estimates that once the second system is installed, the organization's tape costs will be reduced by 75 percent and administration time will be reduced from one hour a day to an hour a month.

"The fact that the ExaGrid system comes with built-in data replication capabilities is a huge bonus. We were able to start with one ExaGrid system and we have the ability to install a second system in our DR center at any point in the future. We will still generate monthly and year-end tapes, but we'll be able to really reduce our reliance on tape so we'll save on tape costs and administration time," said Qualley. "The ExaGrid was also more scalable than the other solutions we looked at. Our data is constantly growing, and we have the comfort of knowing that we can expand the ExaGrid system by adding on additional units."

ExaGrid's GRID computing software makes the system highly scalable, and when plugged into a switch, different sized configurations can be mixed and matched into a single GRID system with capacities of up to a 60TB full backup plus retention. Once virtualized, they appear as a single system to the backup server, and load balancing of all data across servers is automatic.

Easy Management and Administration, Top-notch Support

ExaGrid comes packaged as a turnkey appliance and was designed to be easy to deploy and manage and to deliver maximum uptime with redundant, hot-swappable components. All components are fully supported by ExaGrid's trained, in-house engineers dedicated to individual accounts.

"The ExaGrid system is easy to use. Configuration is easy and the reports and data generated are clear and concise. It's a very intuitive product," said Bell. "We have had an unbelievable experience with ExaGrid's customer support. Our support engineer is extremely knowledgeable and proactive and he's always willing to go the extra mile. Even when we call off-hours, he's always available."

Qualley said that one unexpected benefit of installing the ExaGrid system has been the reduction in the company's backup window. The company's full backups had been taking

About ExaGrid Systems, Inc.

Customers worldwide depend on ExaGrid Systems to solve their backup problems—effectively and permanently. ExaGrid's disk-based, scale-out GRID architecture adjusts to increasing backup demands due to constantly growing data volumes. It is the only solution that combines compute with capacity as well as a unique landing zone to permanently shorten backup windows and eliminate expensive forklift upgrades. Learn more at www.exagrid.com.

23 hours to complete but are now finished within 14 hours with the ExaGrid system.

"We had been backing up to disk so we thought we knew what to expect in terms of backup speed. We were pleasantly surprised when we realized that our backup times have been reduced by at least 30 percent with the ExaGrid system," said Qualley. "We've been very pleased with the ExaGrid system and are looking forward to expanding its capabilities to our disaster recovery site in the near future."

ExaGrid and CA ARCserve Backup

CA ARCserve Backup delivers reliable, enterprise-class data protection across multiple hardware and software platforms. Its proven technology — unified by a single, easy-to-use interface — enables multi-tiered protection driven by business goals and policies. Organizations using ARCserve Backup can look to ExaGrid as an alternative to tape for nightly backups. ExaGrid sits behind existing backup applications, such as ARCserve Backup, providing faster and more reliable backups and restores. In a network running ARCserve Backup, using ExaGrid in place of a tape backup system is as easy as pointing existing backup jobs at a NAS share on the ExaGrid system. Backup jobs are sent directly from the backup application to the ExaGrid for onsite backup to disk.

Intelligent Data Protection

ExaGrid's turnkey disk-based backup system combines high quality SATA drives with byte-level data deduplication, delivering a disk-based solution that is more cost effective than standard SATA drives. ExaGrid's byte-level data deduplication technology stores only the changes from backup to backup instead of storing full file copies, reducing the amount of disk needed by a range of 10:1 to 50:1 or more, resulting in a solution that is 25 to 30% the cost of standard SATA drives. The ExaGrid system is easy to install and use and works seamlessly with popular backup applications, so organizations can retain their investment in existing applications and processes.

ExaGrid servers can be used at primary and secondary sites to supplement or eliminate offsite tapes with live data repositories for disaster recovery.

For more information about ExaGrid, please visit us at www.exagrid.com or call us at 1-800-868-6985.