

American Railcar Switches to ExaGrid from Tape – Results in 50% Shorter Backup Windows and Cost/Time Savings

CUSTOMER SUCCESS STORY



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John Bivens
System Administrator

Key Benefits:

- Backup windows are 50% shorter
- Can now leverage Backup Exec OST instead of file-based backup
- Better data security with ExaGrid not possible with tape
- Time and cost savings realized by no longer using tape

Customer Overview

American Railcar Industries, Inc. (ARI) is a leading North American designer and manufacturer of hopper and tank railcars, providing its railcar customers with integrated solutions through a comprehensive set of high-quality products and related services. ARI manufactures, sells, and repairs railcars, custom-designed railcar parts, and other industrial products.

Using Tape Led to Costly Backup and Slow Data Restores

American Railcar Industries, Inc. (ARI) had been backing up its data to tape using Veritas Backup Exec. John Bivens, ARI’s system administrator, found that this approach made restoring data difficult and slow, in part because the tapes were stored elsewhere. “All backups were going to tape, and then the tapes were moved offsite, so if we had to restore anything, we would have to bring it back from an offsite location. It would take days!”

Using tape had proved costly overall, from the cost of the media itself to the transportation and offsite storage, which increased when tapes needed to be returned to the company for data restores.

“Since our tapes were kept in a remote facility, we had to factor in the cost of somebody taking them offsite and then we moved them down to our secondary site, which added to transportation costs. If anything went wrong and we had to restore lost data, it would take a day or so to get those tapes back,” said Bivens. “Backing up terabytes of data requires a huge number of tapes, and that’s a big outlay of money. Sometimes people might think that they’re not going to save money using disk because it costs more, but when you think about it, the cost of tape is pretty expensive, and the benefits of using ExaGrid—the savings from deduplication and the restore speeds—blow tape out of the water.”

ARI looked into disk-based solutions and decided to purchase and install ExaGrid



systems at both its primary and DR sites. Bivens worked to virtualize the environment, keeping Backup Exec as ARI’s backup application. Bivens has been impressed with how well the ExaGrid system works with Backup Exec in comparison to tape. “Now, we are able to use Backup Exec’s OpenStorage Technology (OST) instead of file-based backup, so we can offload the backup that’s occurring on the Backup Exec server to the ExaGrid itself, and since it goes directly to the ExaGrid, it doesn’t have to go through the backup server, so backup jobs are quicker.”

High Dedupe Ratios Provide Savings on Retention

Bivens backs up ARI’s data in daily incrementals as well as weekly and monthly fulls, keeping the full weekly backups for three weeks and full monthly backups for up to four months. “Before switching to ExaGrid, retention was far more expensive because we continuously needed to buy more tapes, as they would fail eventually. Some tapes would go bad when we tried to restore data, so we weren’t able to restore from the point that

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we wanted to, and sometimes tapes were just lost. Switching to disk-based backup greatly improved the situation.”

Before using ExaGrid, Bivens had not been able to deduplicate data. He appreciates how ExaGrid’s deduplication has maximized space on the system. “One of the things we really like about ExaGrid compared to tape is that it can dedupe files from tape, so we’ve ended up saving a lot of space. Our deduplication ratios have been as high as 21:1! It’s pretty incredible when 6TB of data is crunched down to 315GB. Now, we no longer need to keep vaults of up to 300 tapes, which took up space and required time and effort to sort through.

“Using ExaGrid also provides data security. With tape vaults, we needed to be sure that tapes were secure and locked up at night. When tapes were outside the data center for transportation, there was a risk of theft or misplacement. Using a disk-based system is more secure,” said Bivens.

50% Shorter Backup Windows

Bivens has noticed a major reduction of backup windows since replacing tape with ExaGrid. “Before switching to ExaGrid, we were approaching a 24-hour cycle of backups all the time, and now our longest backup job takes just 12 hours, so there’s time to do more backups if we need to. Previously, if a backup job failed overnight, we’d have to find the tape, reload it, and then rerun the backup. That process alone could take up to an hour or more. There is so much time saved using a disk-based system.”

ExaGrid writes backups directly to a disk landing zone, avoiding inline processing and ensuring the highest possible backup performance, which results in the shortest backup window. “Adaptive” deduplication performs deduplication and replication in parallel with backups while providing full system resources to the backups for the shortest backup window. Available system cycles are utilized to perform deduplication and offsite replication for an optimal recovery point at the disaster recovery site. Once complete, the onsite data is protected and immediately available in its full unduplicated form for fast restores, VM Instant Recoveries, and tape copies while the offsite data is ready for disaster recovery.

About ExaGrid

ExaGrid provides hyper-converged secondary storage (HCSS) for backup with a unique landing zone and scale-out architecture. The landing zone enables the fastest backups, restores, and instant VM recoveries. The scale-out architecture includes full appliances in a scalable system and ensures a fixed-length backup window as data grows, eliminating expensive and disruptive forklift upgrades. Learn more at www.exagrid.com.

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Proactive Support Keeps System Well-Maintained

Bivens has found that managing backups and replication from the ExaGrid system at the primary and DR sites has been simple and saves time. “It’s very easy to manage the systems through the interface and to create shares at one site and have them duplicated at the other site just by clicking a few buttons. When we were using tape, a lot of time was set aside for managing backup, sorting through tapes, and dealing with issues that would come up. Now that we have a simpler system to manage, we have more time to work on other projects.”

Bivens is impressed with how proactive and responsive his assigned support engineer has been. “Whenever I have needed help, ExaGrid support techs have been able to remote in and help fix any issue. I’ve called my engineer quite a bit and have never had a problem getting in touch with him. My support engineer has also called me, letting me know when he has shipped a replacement for a failing drive. I can’t think of other companies with that level of support for their hardware—that monitor the hardware itself, and send notifications and replacements when drives fail.”

ExaGrid and Veritas Backup Exec

Veritas Backup Exec provides cost-effective, high-performance, and certified disk-to-disk-to-tape backup and recovery – including continuous data protection for Microsoft Exchange servers, Microsoft SQL servers, file servers, and workstations. High-performance agents and options provide fast, flexible, granular protection and scalable management of local and remote server backups.

Organizations using Veritas Backup Exec can look to ExaGrid as an alternative to tape for nightly backups. ExaGrid sits behind existing backup applications, such as Veritas Backup Exec, providing faster and more reliable backups and restores. In a network running Veritas Backup Exec, 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 backup to disk.



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