EXAGRID®

# BI Incorporated Monitors Faster Backups and Restores with ExaGrid
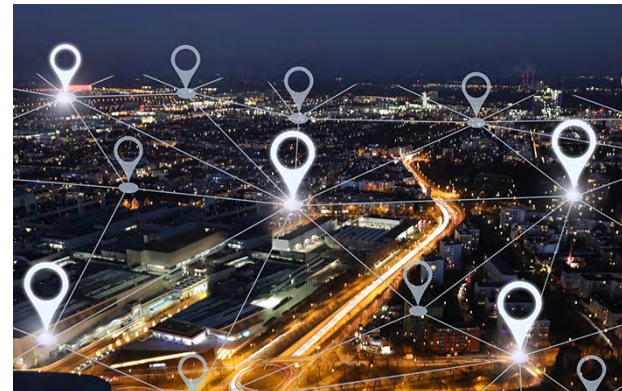
**BI**

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USA

## Key Benefits:

- Restores take minutes
- Adaptive Deduplication is a game changer with cost and performance
- Off-site ExaGrid system provides enhanced disaster recovery
- Superior support

"In our testing, we saw a huge performance advantage over tape with the ExaGrid system. ExaGrid's approach to backup is very efficient and it decreased the load on the backup server. This wasn't the case with a competing solution that uses a deduplication on-the-fly based approach, though efficient, it caused our backup times to increase."

**Jeff Voss**
UNIX Systems Administrator

## Customer Overview

*BI Incorporated works with more than 1,000 governmental agencies nationwide to provide offender monitoring technology, supervision services from a national monitoring center, community-based treatment services, and reentry programs to adult and juvenile offenders released on parole, probation or pretrial release. Based in Boulder, Colorado, BI works closely with local public corrections officials to reduce recidivism, enhance public safety, and strengthen the communities the organization serves.*

## High Costs, Slow Backups Strain IT Resources

Backing up its corporate information, the production environments for its monitoring programs, databases and other information to tape was a continuous process for the IT staff at BI Incorporated. Various backup jobs ran most of the day and night, but with a slow, failing tape library, the backups were difficult to complete and were taxing the firm's IT resources.

BI had a legacy tape backup system with 15-tape cartridges that were rotated on a two-week basis and sent offsite to a secure facility. However, the cost of the media was high as were the monthly fees for offsite tape storage.

"The costs associated with our backups were high, including the cost of the tape itself, tape storage and transportation, and the cost of tape retrieval when we needed to restore files," said Jeff Voss, UNIX systems administrator for BI International. "When our tape library began to fail, we took a close look at the whole situation and decided that there had to be a faster, more cost-effective way to protect our data than with tape."

## ExaGrid's Adaptive Deduplication Provides Higher Performance

After considering several different approaches to backup, including a SAN- based solution and a competing disk-based backup solution, BI chose ExaGrid. The ExaGrid system works with BI's existing backup application, Dell NetWorker running on Solaris.

"The SAN-based approach was costly because it would have required us to purchase a SAN on top of the cost of the software. Also, it didn't compare in terms of functionality to the other two solutions," said Voss.



BI chose ExaGrid after evaluating both the ExaGrid system and a competing solution in its datacenter.

"We evaluated both ExaGrid and a competing solution and we were impressed with ExaGrid's approach to data deduplication, scalability and its overall cost. In our testing, we saw a huge performance advantage over tape with the ExaGrid system. ExaGrid's approach to backup is very efficient and it decreased the load on our backup server. This wasn't the case with the other solution whose deduplication on-the-fly based approach, though efficient, it caused our backup times to increase."

ExaGrid writes backups directly to a disk-cache 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 for a strong recovery point (RPO). As data is being deduplicated to the repository, it can also be replicated to a second ExaGrid site or the public cloud for disaster recovery (DR).

## Faster Backups and Restores

Currently, BI backs up data from 75 servers to the ExaGrid system, and has experienced significantly faster backups and restores.

"With ExaGrid, our backups are much faster, and I no longer dread performing restores. To restore a file with our old tape backup system, we would often have to call the tape out of storage, have it delivered, load it into the tape library and hope the file would be there. We would spend anywhere from four to five hours a week doing restores, but now it just takes minutes to restore files from the ExaGrid," said Voss.

## Off-Site ExaGrid System Provides Enhanced Disaster Recovery

BI purchased a second ExaGrid system to replicate data between its corporate site in Boulder and its industry leading call center in Anderson, Indiana for disaster recovery. When used to replicate data between two or more sites, ExaGrid systems are extremely efficient because only the byte-level changes are moved across the WAN, so only about 1/50th of the data needs to traverse the WAN.

"The fact that the ExaGrid system can work so efficiently as a disaster recovery site was important to us," said Voss. "Using ExaGrid will enable us to nearly eliminate our offsite storage costs because most of our data will be backed up to disk."

## ExaGrid's Unique Architecture Provides Linear Scalability

For BI, scalability was also an important factor in choosing ExaGrid. "The ExaGrid system is extremely scalable and can accommodate our needs now and into the future," said Voss. "When it's time for us to upgrade, we can expand the ExaGrid system by adding capacity instead of having to buy a whole new system."

ExaGrid appliances contain not just disk but also processing power, memory, and bandwidth. When the system needs to expand, additional appliances are simply added to the existing system. The system scales linearly, maintaining a fixed-length backup window as data grows so customers only pay for what they need, when they need it.

Data is deduplicated into a non-network-facing Repository Tier with automatic load balancing and global deduplication across all repositories.

## ExaGrid and Dell Networker

Dell NetWorker provides a complete, flexible and integrated backup and recovery solution for Windows, NetWare, Linux and UNIX environments. For large datacenters or individual departments, Dell EMC NetWorker protects and helps ensure the availability of all critical applications and data. It features the highest levels of hardware support for even the largest devices, innovative support for disk technologies, storage area network (SAN) and network attached storage (NAS) environments and reliable protection of enterprise class databases and messaging systems.

Organizations using NetWorker can look to ExaGrid for nightly backups. ExaGrid sits behind existing backup applications, such as NetWorker, providing faster and more reliable backups and restores. In a network running NetWorker, using ExaGrid 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 enterprise drives with zone-level data deduplication, delivering a disk-based solution that is far more cost effective than simply backing up to disk with deduplication or using backup software deduplication to disk. ExaGrid's patented zone-level deduplication reduces the disk space needed by a range of 10:1 to 50:1, depending on the data types and retention periods, by storing only the unique objects across backups instead of redundant data. Adaptive Deduplication performs deduplication and replication in parallel with backups. As data is being deduplicated to the repository, it is also replicated to a second ExaGrid site or the public cloud for disaster recovery (DR).

## About ExaGrid

ExaGrid provides Tiered Backup Storage with a unique disk-cache Landing Zone that enables fastest backups and restores, a Repository Tier that offers the lowest cost for long-term retention and enables ransomware recovery, and scale-out architecture which includes full appliances with up to 2.7PB full backup in a single system.

Learn more at **www.exagrid.com**.