High Performance, Scalable Disk Backup with Data Deduplication

ExaGrid is a scalable, cost-effective disk-based backup with deduplication solution that revolutionizes how organizations back up and protect their data.

With ExaGrid, you get the only disk backup appliance purpose-built for backup that leverages a unique architecture optimized for backup and restore performance, scalability, and price. Only ExaGrid’s performance-based GRID architecture offers you:

- Fastest backups up front with permanently short backup windows as data grows
- Instant recovery of full systems, VMs, and files so you have the least downtime
- Lowest total cost over time by eliminating “forklift” upgrades and product obsolescence

Our patented zone-level deduplication reduces the disk space needed by a range of 10:1 to 50:1 by storing only the unique bytes across backups instead of redundant data. Adaptive deduplication performs deduplication and replication in parallel with backups while providing full system resources to the backups for the shortest backup window. Adaptive deduplication delivers the fastest backups, and as your data grows, only ExaGrid avoids expanding backup windows by adding full appliances in a GRID. ExaGrid’s unique landing zone keeps a full copy of the most recent backup on disk, delivering the fastest restores, instant VM recovery, “Instant DR,” and fast tape copy. And, as data grows, ExaGrid saves you 50% in total system costs compared to competitive solutions by avoiding costly “forklift” upgrades.

Replace Tape with Cost-Effective Disk-Based Data Protection

Using ExaGrid’s disk backup solution to replace tape in the nightly backup process can reduce backup windows by up to 90%. A typical 12-hour backup window can be decreased to as little as two to three hours. ExaGrid improves the speed and reliability of your backups and restores, including support for advanced virtualized server recovery techniques such as instant VM recovery. For offsite long-term retention or disaster recovery, ExaGrid offers the ability to transfer backup data to an installed system at a remote location to supplement or eliminate offsite tapes. ExaGrid also supports multi-site topologies where multiple locations can transfer backup data to a centralized site for DR protection. ExaGrid is very cost effective at transferring backup data offsite because ExaGrid’s deduplication only moves changes, requiring minimal WAN bandwidth. The costs and reliability issues associated with tape handling, shipment, and storage are significantly reduced or eliminated.

ExaGrid Appliance

The ExaGrid system includes standard appliances along with ExaGrid’s software to deliver a complete turnkey solution for disk backup with data deduplication. The ExaGrid appliance is rack-mountable and uses standard components, including Intel® processors, enterprise SATA/SAS drives, and Gigabit Ethernet connection(s).

ExaGrid works seamlessly with all major backup applications, so you can preserve your investment in backup applications and processes. Using ExaGrid is as simple as pointing your existing backup jobs to a NAS share on the ExaGrid appliance. Backup jobs are sent directly from the backup application to the ExaGrid appliance for onsite disk backup. The backup application can create copies from the ExaGrid system directly to your tape library for offsite storage, or you can deploy a second site ExaGrid to reduce or replace offsite tape.
ExaGrid Product Overview: Disk Backup with Deduplication

Highest Performance for Backups
- Fastest backup performance using adaptive deduplication, so nothing interferes with the data writing directly to disk, at the speed of disk
- Backup windows kept permanently short as data grows by adding full servers (with processor, memory, disk, and bandwidth) in a GRID

Fastest Restores and Instant Recovery
- Fastest restore and tape copy performance from the most recent backup kept in its whole form. No reassembly from small blocks and large hash tables is required.
- Instant recovery of VMs from high-speed landing zone, which maintains a full copy of the latest backup. If the primary VM is unavailable, recover and run a VM from the ExaGrid system within minutes.

Most Cost-Effective Solution with No “Forklift” Upgrades
- Scalable next-generation GRID architecture with full appliances provides plug-and-play expansion. To add an ExaGrid appliance, you simply plug it in and let ExaGrid’s GRID software virtualize the backup capacity pool.
- Multiple appliances allow full backups of 1TB, 2TB, 3TB, 4TB, 5TB, 7TB, 10TB, 13TB, 21, or 32TB with corresponding raw capacity of 5TB, 7TB, 9TB, 11TB, 16TB, 20TB, 26TB, 32TB, 48, and 72TB, respectively. Any size appliance can be mixed and matched in multiple different configurations with up to 25 servers combined into a single GRID of up to 1.8PB raw capacity (1.6PB usable), allowing full backups of up to 800TB.
- 50% lower total system cost vs competing systems over time by eliminating the costly “forklift” upgrades associated with a first-generation front-end controller/disk shelf architecture.

Features
- Turnkey cost-effective disk-based backup solution with all hardware and software included.
- Zone-level deduplication technology reduces the amount of disk space needed by as much as 50:1.
- Adaptive deduplication performs deduplication and replication in parallel with backups while providing full system resources to the backups for the shortest backup window and an optimal recovery point at the disaster recovery site.
- Global deduplication across all NAS shares and appliances in a GRID.
- Unique landing zone reduces downtime by keeping a full copy of the most recent backup in complete form for instant recovery of VMs, full systems, and files. Competing solutions must reassemble the most recent backup from millions or billions of deduplicated chunks causing much longer recovery time.
- Scalable GRID computing architecture allows for cost-effective growth and eliminates obsolescence.
- Plug and play expansion – up to ten appliance models from a 1TB full backup to a 32TB full backup per appliance. Up to 25 appliances in a single GRID allows for scalability from a 1TB full backup to an 800TB full backup (1.6PB usable storage).
- Single primary site system allows for existing offsite tape strategy if desired, and support for two site or multi-site topologies can supplement or eliminate offsite tape with a disk-based system.
- Support of Oracle RMAN Channels for multi-hundred terabyte databases with the fastest backup, fastest restore performance, and failover.
- Bandwidth throttling for WAN efficiency.
- Management software notifies via SNMP or email that the system is reaching capacity thresholds.
- RAID6 guards against up to two simultaneous disk failures.
- Self-Encrypting Drive (SED) technology (encrypted models only) ensures that data at rest is always protected.
- WAN encryption for secure data transfer.
- A comprehensive listing of supported backup apps and utilities can be found at www.exagrid.com.