



ExaGrid Tiered Backup Storage

- Fastest Backups
- Fastest Recoveries
- Unparalleled, Cost-effective Scale-out
- Comprehensive Security and Ransomware Recovery

ExaGrid

Product Line Configurations

Tiered Backup Storage

ExaGrid provides Tiered Backup Storage with a unique disk-cache Landing Zone, long-term retention repository, and scale-out architecture. The system scales as needed by adding ExaGrid appliances, which virtualize into a single scale-out system automatically, adding capacity and processing power while acting and being managed as one unified system.

ExaGrid Tiered Backup Storage utilizes a scale-out architecture, where each appliance has both compute and capacity which allows the system to linearly scale which provides a fixed-length backup window as data grows. The front-end disk-cache Landing Zone along with Adaptive Deduplication coupled with a non-network-facing Repository Tier allows for:

- Fastest backups and shortest backup windows with optimal recovery point at the disaster recovery site
- Fastest full system restore (from fully hydrated backup copy on disk)
- Boot a VM in minutes versus hours
- Fixed-length backup window as data grows
- Non-networking-facing tier with delayed deletes and immutable data objects in order to recover from a security event such as a ransomware attack
- Integrations with backup application scale out features
- Automatic load balancing and global deduplication
- Seamless scalability as data grows with no forklift upgrades
- No obsolescence as any age and any size appliance can be mixed and matched in a single system
- Protected data at rest with 256-bit AES encryption (encrypted models only); data is encrypted on the disk storage using FIPS 140-2 Validated
- Self-Encrypting Drives (SEDs)

ExaGrid Model	Raw Capacity (TB)	Usable Capacity (TB)	Capacity for Weekly Full (TB)	Capacity for 16 Weekly Fulls (TB)	Max Backup Thruput (TB/hr)	Encryption At Rest SEC
ExaGrid Appliances						
EX27	72	54	27	432	6.09	√
EX36	96	72	36	576	7.78	√
EX52	128	104	52	832	10.87	√
EX84	192	168	84	1344	15.25	√

In addition, ExaGrid offers these appliances to accommodate larger organizations that have smaller data center locations worldwide:

ExaGrid Model	Raw Capacity (TB)	Usable Capacity (TB)	Capacity for Weekly Full (TB)	Capacity for 16 Weekly Fulls (TB)	Max Backup Thruput (TB/hr)	Encryption At Rest SEC
ExaGrid Appliances for larger accounts with smaller data center locations						
EX10	32	20	10	160	2.40	√
EX18	48	36	18	288	3.60	√

With ExaGrid Tiered Backup Storage, backups are written directly to a disk-cache Landing Zone to avoid inline processing and ensure the highest possible backup performance, resulting 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 undeduplicated form for fast restores, VM Instant Recoveries, and tape copies while the offsite data is ready for disaster recovery.

ExaGrid appliance models can be mixed and matched, from 1-32 appliances, in a single scale-out system.

Here are some examples of EX84 appliance model configurations:

ExaGrid Model	Usable Capacity (TB/PB)	Capacity for Weekly Full (TB/PB)	Capacity for 16 Weekly Fulls (PB)	Max Backup Thruput (TB/hr)
Example System Configurations				
EX168-G	336 TB	168 TB	2.68	30.5
EX504-G	1PB	504 TB	8.06	91.5
EX1008-G	2.01 PB	1 PB	16.12	183
EX1344-G	2.68 PB	1.34 PB	21.5	244
EX1680-G	3.36 PB	1.68 PB	26.88	305
EX2100-G	4.2 PB	2.1 PB	33.6	381.25
EX2688-G	5.37 PB	2.7 PB	43	488

Largest system available: 2.7PB full backup @ 488TB/hr.

Simple, Turnkey Appliances

ExaGrid's appliances work seamlessly with the industry's leading backup applications and typically installs in about 30 minutes to 3 hours. The product line's multiple appliance models can be combined into a single scale-out system of up to 6.14PB raw capacity, allowing full backups of up to 2.7PB.

ExaGrid appliances are comprised of Intel® or AMD processors, enterprise SAS drives, RAID6 with hot spare, and ExaGrid software. Since each appliance includes the appropriate amount of processor, memory, disk, and bandwidth for the data size, as each appliance is added into a single scale-out system, performance is maintained and backup times do not increase as data is added. This combination of capabilities in a turnkey appliance makes the ExaGrid system easy to install, manage, and scale.

Scalable Architecture

Multiple core ExaGrid disk-based backup appliances include scale-out computing software which allows them to virtualize into one another when added to the system. As a result, any of the multiple appliance models can be mixed and matched into a single scale-out system configuration of up to 6.14PB raw capacity and allowing full backups of up to 2.7PB. Once virtualized, they appear as a single pool of long-term capacity. Capacity load balancing of all data across servers is automatic, and multiple systems can be combined for additional capacity. Data is load balanced across all appliances in the system to ensure the best deduplicated storage efficiency.