



# ExaGrid® Product Line

ExaGrid is the only solution that satisfies all seven requirements of Cost-effective Disk-based Backup.

## The 7 Requirements

1. Leverage existing backup applications and processes
2. Reduce nightly backup window
3. Enable fast and reliable restores utilizing a disk-based verified data approach
4. Eliminate tape management challenges through the use of disk and server technology
5. Provide efficiency through byte-level data deduplication technology
6. Co-exist with existing tape strategy
7. Supplement offsite tapes with a live disk-based data repository solution that satisfies all seven requirements of cost-effective disk-based backup

## High Performance Disk-based Backup with Data Deduplication

ExaGrid offers a highly scalable disk-based backup system that works with your existing backup application and combines high quality SATA storage, compression and byte-level data deduplication with a virtualized GRID architecture. This unique approach reduces the disk space required for backup by a range of 10:1 to 50:1, or more, delivering unparalleled cost savings and performance at a fraction of the price of standard SATA disk storage, and about the price of tape backup.

## Scalable GRID Architecture

There are five core ExaGrid disk-based backup servers. These servers include GRID computing software. When plugged into a switch they virtualize into one another. As a result, any of the five configurations can be mixed and matched into a single GRID system, with capacities up to 30TB, in 1TB to 5TB increments. Once virtualized, multiple ExaGrid servers appear as a single easy to manage system to the backup server. Load balancing of all data across servers is automatic and multiple GRID systems can be combined for additional capacity. ExaGrid is perfect for environments with backups of 1TB to 60TB.

## Five Core ExaGrid Server Configurations

- 1TB EX1000
- 2TB EX2000
- 3TB EX3000
- 4TB EX4000
- 5TB EX5000

For example, a 5TB ExaGrid server can store a 5TB full backup (5TB of primary data) plus up to 16 weeks of retention/history, while a 2TB server can take in a 2TB full backup (2TB of primary data) plus up to 16 weeks of retention. If a 20TB system is required, then four EX5000s are plugged into the switch and virtualize into a single system.

ExaGrid Model	Primary Data Capacity	Capacity for Weekly Fulls		Capacity for Daily Fulls		Backup Throughput
		Copies	Total backup data	Copies	Total backup data	
EX1000	1 TB	16	16 TB	75	75 TB	380 GB/hr
EX2000	2 TB	16	32 TB	75	150 TB	380 GB/hr
EX3000	3 TB	16	48 TB	75	225 TB	380 GB/hr
EX4000	4 TB	16	64 TB	75	300 TB	830 GB/hr
EX5000	5 TB	16	80 TB	75	375 TB	830 GB/hr

## System Configuration Examples

Examples of several common ExaGrid system GRID configurations between 5TB and 20TB

Configuration Models	Primary Data Capacity	Capacity for Weekly Fulls		Capacity for Daily Fulls		Backup Throughput
		Copies	Total backup data	Copies	Total backup data	
7 TB 1x EX4000 + 1x EX3000	7 TB	16	112 TB	75	525 TB	1.08 TB/hr
10 TB 2x EX5000	10 TB	16	160 TB	75	750 TB	1.66 TB/hr
12 TB 3x EX4000	12 TB	16	192 TB	75	900 TB	2.04 TB/hr
15 TB 3x EX5000	15 TB	16	240 TB	75	1125 TB	2.5 TB/hr
20 TB 4x EX5000	20 TB	16	320 TB	75	1500 TB	3.3 TB/hr
25 TB 5x EX5000	25 TB	16	400 TB	75	1875 TB	4.2 TB/hr
30 TB 6x EX5000	30 TB	16	480 TB	75	2250 TB	5.0 TB/hr

## Scalability and Performance

A 1TB to 5TB ExaGrid server in combination with the virtualized GRID architecture allows for the following:

- Start with the appropriate initial capacity and add capacity in 1TB to 5TB increments as needed.
- “Right size” capacity up front and over time by adding only the required capacity.
- As servers are added, additional memory, processor disk and GigE are also added, resulting in no loss of performance. As data grows the appropriate amount of system resources are added.

