



GreenBytes® GB-4000

Midrange Storage Appliance - 24TB to 216TB

REAL-TIME DEDUPLICATING STORAGE APPLIANCE

Powerful and Efficient storage in a 4U Form Factor – Designed for primary storage, long-term “online” archive and data protection environments.



Overview

Efficiency in today's data centers is increasingly measured not only by power consumption, but also by capacity, space, reliability and economy of acquisition. GreenBytes'® ground-breaking GB-4000 storage appliance, part of GreenBytes' GBX Series, brings together a combination of highly innovative software technology and a world-class server platform to address the efficiency crisis facing today's IT operations.

The GB-4000 storage appliance is purpose-built to bring the benefits of inline data deduplication to the broader storage market in an easy-to-use, energy-efficient package. Leveraging its high throughput and I/O performance in conjunction with the rich features of the GreenBytes' file operating system, our GB-4000 is ideal for storing Primary on-line data as well as backup and archive information – with a price point and scalable roadmap that makes it more accessible than any competing product on the market today.

Features

Ideal Applications

- **PRIMARY STORAGE CONSOLIDATION.**
Simplify your storage environment by consolidating your user and business data on the GB-4000 deduplicating appliance. Whether you are a Windows or Unix client shop – or both – you can put it all in one, easy to scale system with our support for CIFS, NFS and iSCSI block storage protocols. With our dense form factor, built-in deduplication technology and power saving disk technology, you can avoid or defer costly data center expansion, by consolidating your legacy storage in one manageable GB-4000 appliance.
- **BACKUP, ARCHIVE & DATA PROTECTION.**
GB-4000 performs optimally for all types of persistent data storage, including file backups, medical images, email archives, document images and other large and static file data sets.
- **VIRTUAL SERVER.**
GB-4000 tames the storage and performance challenges of the proliferation of virtual server and desktop OS images as businesses increasingly adopt server virtualization. In VDI environments, GB-4000's scalable cache via SSD option handles even the most challenging of “I/O Storms.”

Key Operational Advantages

- **COMPLETE TURNKEY SOLUTION.**
The GB-4000 is a purpose built storage appliance designed to fit your IT environment with little more than a few minutes of configuration. GreenByte's rich feature set allows you the flexibility to deploy your deduplicating storage appliance for interface with any combination of CIFS, NFS, iSCSI, OST , or NDMP. Further, all GreenBytes software is included in the price of our appliances, thus avoiding all of the cost and annoyance of traditional storage software licensing.
- **DATA INTEGRITY**
GB-4000 utilizes multiple layers of data consistency and data redundancy processes, ensuring that your information is there when you need it and in its original form.
- **REMOTE REPLICATION**
GreenBytes' built in replication features allow for DR/BC as well as tape consolidation and is available for both Asynchronous and Synchronous configurations. GreenBytes ensures that the specific data sets you choose are replicated efficiently and effectively.

Benefits



Optimize.

Optimize and consolidate storage with GB-4000's real-time deduplication and compression operating system. Free up valuable data center space and associated energy cost with efficient storage.



Simplify.

Storage administrators enjoy the benefits of the GreenBytes Storage Manager which leverages the universally known interface of the Microsoft Management Console (MMC). Storage Manager makes initial configuration, monitoring, and expansion activities common in most business environments a snap.



Save.

Save money on the acquisition, support and features of deduplicated storage with GB-4000.



Product Feature Overview

REAL-TIME, BLOCK LEVEL DEDUPLICATION

The GB-4000 includes deduplication built into the operating system – creating a true single instance storage appliance capable of on-the-fly deduplication of data – with storage performance and scalability many times that of competing deduplication appliances.

TRUE STORAGE VIRTUALIZATION

The GB-4000 scales seamlessly on the fly today from 24TB or raw disk storage to 216TB. GreenBytes' modular scaling architecture allows true demand based provisioning. GreenBytes expansion shelves can be added at any time to dynamically grow the storage. Further, the modular scaling approach allows for the utilization of the latest and greatest densities resulting in an even more cost effective scaling profile.

SSD-ENABLED READ ACCELERATION

The GB-4000 can be configured with a population of Solid State Disks (SSD) versus standard spinning disk. The SSDs are used to expand the cache, thus scaling the READ IOPS for high performance applications such as virtual machine storage infrastructure.

MANAGEMENT 101

The GB-4000 storage administration is end-to-end in function. We created our administration tool suite to accommodate the entire set of data management tasks with a single Microsoft Management Console (MMC) plug-in. With the toolset, initial configuration of a GB-4000 system for any particular user environment is as easy as setting up a home wireless router. Snapshot, replication, and easy cross platform (CIFS/NFS) file sharing administration tasks are easily administered with the tool.

UBIQUITOUS CONNECTIVITY

Use your Windows Active Directory (AD) to auto-provision all of your user storage with our built-in CIFS server, eliminating the need for Samba middleware. Simultaneously provide NFS shares as well as provision iSCSI target LUNs for your SAN storage needs. GB-4000 is also optimized for use with the Symantec Open Storage (OST) interface, enhancing deduplication performance with Symantec OST enabled backup applications. Deduplication occurs across the entire storage pool – regardless of the connectivity method!

Platform

The GB-4000 4U storage server is a flexible hardware platform with two high-performance Intel® Xeon® processors, 48 2.5" hard drives, and flexible network connectivity. Configured as an appliance with ultra-fault tolerant double parity RAID disk sets, the GB-4000 will meet your organization's needs for performance and system availability. Depending on your application's performance needs, GB-4000 can optionally be configured with Solid State Disk (SSD) read cache in place of SATA for superlative read performance.

GB-4000 SPECIFICATIONS

- 24 TB: (48) x 500 GB SATA
- (2) Intel Xeon: 16 cores
- 2 x 10 GbE & 4 x 1 GbE
- 2 x 32 GB SSD
- GreenBytes' FOS, GBFS
- Optional 24 TB expansion shelves available

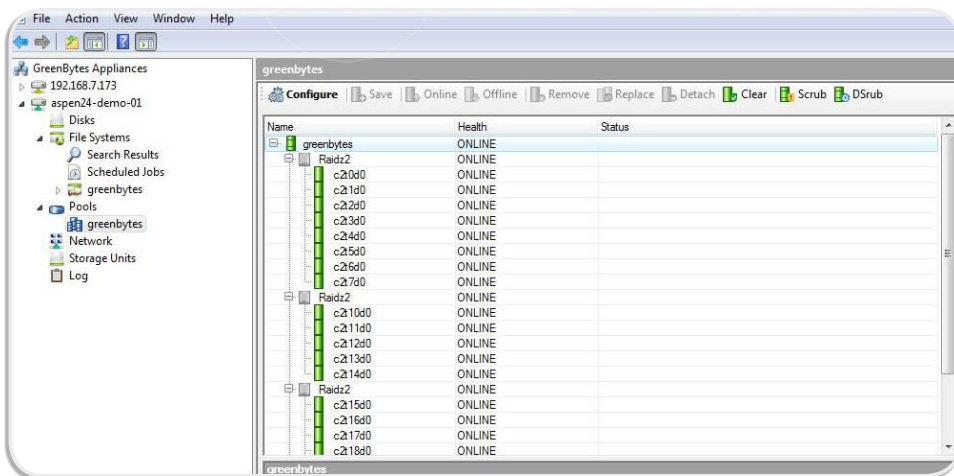
World-Class 7x24x365 product support options.

GreenBytes File System Features

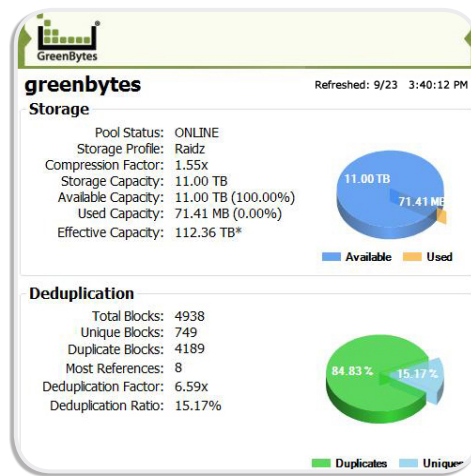
- Real-time block level deduplication
- Wirespeed compression
- On-the-fly seamless storage expansion & provisioning
- NFS/CIFS/iSCSI/OST/ftp storage protocols
- Unlimited Snapshots: 1 min. granularity
- NxN Replication
- Auto provisioning and home folder mirroring
- Microsoft VSS
- SNMP Messaging
- NDMP Client
- MAID intelligent disk power technology
- E-Mail/Phone Home capability for proactive maintenance

Storage Capacity
Base / Max
24 TB / 216 TB

Ingest Performance
10GbE
950 MB / Sec



Example 1 GreenBytes Administration GUI



Example 2 Display of Data Allocation

