



# GreenBytes® GB-1000

High-Performance SSD Accelerated Inline Deduplicating SAN and NAS Appliance

## REAL-TIME DEDUPLICATING STORAGE APPLIANCE



The GB-1000 is GreenBytes' latest addition to its GB-X Series of inline deduplicating appliances that feature a next-generation storage architecture combined with highly innovative software technology and advanced power management design in an easy-to-use, cost-effective package purpose-built to bring the efficiencies of data deduplication beyond data protection and into the primary storage market.

Powerful and efficient storage in a 1U form factor, and with prices starting below \$10,000, the GB-1000 delivers the same features as larger GB-X Series appliances but at an unprecedented performance/price ratio.

## Overview

The GB-1000 features a highly competitive price point while delivering superlative real-time deduplication and restore performance. Unlike competing deduplication appliances, the GB-1000 provides IO performance via SSD, as well as connectivity and data management features which allow the appliance to perform superbly in both data protection and primary storage environments.

The GB-1000 multi-protocol storage appliance offers enterprise-class features including simultaneous support for both SAN and NAS connectivity, snapshots, remote replication, thin provisioning and a complete graphical management suite for configuration and system monitoring.

### Target Environments

- The GB-1000, when paired with backup software offerings such as those from Symantec, BakBone, LaserVault and others, makes all the benefits of inline deduplicated disk-based backup an economic reality for the SMB. And with its extensive capabilities and features, the GB-1000 is also ideal for primary storage use in remote office applications, as well as departmental and multi-office backup and tape consolidation environments.

### Key Operational Advantages

- **COMPLETE TURNKEY SOLUTION.**  
The GB-1000 is a purpose-built storage appliance designed to fit your IT environment with little more than a few minutes of configuration. GreenBytes' rich feature set allows you the flexibility to deploy your inline 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 the appliances, thus avoiding all the cost and annoyance of traditional storage software licensing.
- **DATA INTEGRITY**  
The GB-1000 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. Customer configurable fault tolerant drive options include single, double and triple parity software RAID options. Fully redundant power, cooling and network links are standard.
- **REMOTE REPLICATION**  
GreenBytes' built in replication features allow for local and remote DR/BC as well as consolidation of tape operations. GreenBytes ensures that the specific data sets you choose are replicated efficiently and effectively. GB-1000 is an ideal appliance for a remote/branch office replication strategy for larger businesses using additional, larger capacity GB-X Series systems for large-scale end-to-end replication projects. Customers also benefit from GreenBytes' optimized replication technology that sends only unique data to replication target systems, thereby reducing network bandwidth requirements. And unlike other deduplication appliance vendors, GreenBytes does not charge you for replication software.

## Benefits



### Optimize.

Optimize and consolidate storage with GB-1000's real-time inline 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 that 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, management, support and features of inline deduplicated storage with the GB-1000.



## Product Feature Overview

### MANAGEMENT 101

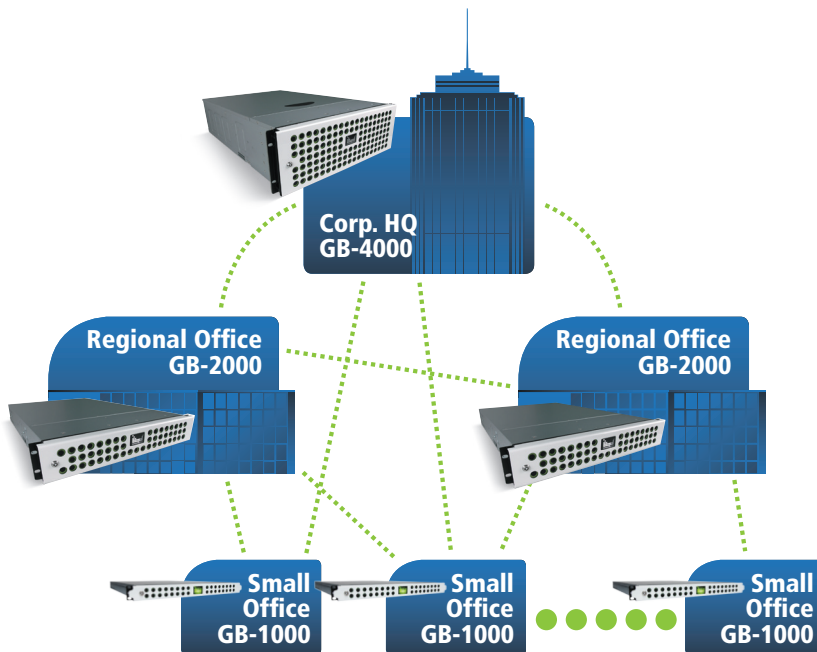
The GB-1000 storage administration is end-to-end in function. We created our administration tool suite to accommodate the entire set of data management tasks with a single Microsoft Management Console (MMC) plug-in. With the toolset, initial configuration of a GB-1000 system for any particular user environment 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. Customers will realize reduced total cost of ownership with significantly less administrative and operational oversight with single pane-of-glass management of multiple GreenBytes systems.

### 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. The GB-1000 is also optimized for use with the Symantec OpenStorage (OST) interface, enhancing deduplication performance with Symantec OST enabled backup applications. Deduplication occurs across the entire storage pool – regardless of the connectivity protocol.

## GreenBytes File System (GBFS) Features

- Real-time tunable block level deduplication
- Wirespeed compression
- NxN Replication
- Microsoft VSS integration
- SNMP Messaging
- Unlimited CIFS/NFS File Systems
- NDMP Client
- Unlimited Snapshots: 1 min. granularity
- E-Mail/Phone Home capability for proactive maintenance
- Auto provisioning and home folder mirroring
- End user file restore capability
- Connection via iSCSI for block level performance
- Thin provisioning for additional storage efficiencies



## Platform

The GB-1000 1U storage server is a flexible hardware platform with a high-performance Intel® Xeon® processor, eight 2.5" SATA drives and flexible network connectivity. Configured as an appliance with GreenBytes' inline deduplicating file system, the GB-1000 will meet your organization's needs for performance and system availability.

### SYSTEM SECURITY

- Windows Unix ACLs
- LUN Masking
- Encrypted Replication

### Physical & Network Specifications

Form factor (base)	1U/8 Drive
Maximum Drive Bays	8
Capacity Scale	-
Capacity (TB)	4
Internal SSD	1 x 32 GB
GbE Network Ports	2
10 GbE Network	Option
Remote management	Yes
Storage protocols	iSCSI, NFS, CIFS
Power (Nominal/Typical)	140/170 W
Heat Dissipation (Nom/Typ)	480/580 BTU
Dimensions	W:19" L:25" H:1.75" ( 1U )
Weight	32 lbs

### Performance Benchmarks \*

Ingest	160 MB/sec
IOPS	45,000

### Other Included Features

Graphical Management	Included
Filesystems	Unlimited CIFS/NFS
iSCSI Volumes	Unlimited
Snapshots	Unlimited
Replication	N-to-N
Symantec OST	Included
Security	Windows & Unix ACL, LUN Masking, Encrypted replication

\* Performance measured with (2) aggregated GbE connections. IOPS are 100% read random 4K blocks.

GreenBytes product is backed by a strong warranty and a world-class 7x24x365 customer support network.



Hopkinton Industrial Park  
15 Gray Lane  
Ashaway, RI 02804, USA

[www.GetGreenBytes.com](http://www.GetGreenBytes.com)

(877) GRN-BYTE Sales  
(401) 315-5580 Phone  
(401) 315-7267 Fax

Copyright 2010 GreenBytes, Inc. All rights reserved. Specifications are subject to change without notice. GreenBytes, and the GreenBytes logo are registered trademarks of GreenBytes Inc. Windows is a trademark of Microsoft Corporation. Intel Xeon is a registered trademark of Intel Corp. All other brands or products are trademarks or registered trademarks of their respective holders and should be treated as such.