

Quantum Strengthens  
Workgroup NAS Leadership  
with New Guardian 4400 Server

## Guardian™ 4400



### FEATURES AND BENEFITS

- **1U Rack Mount Form Factor.** Delivers high-density storage that conserves space, maximizing server room utilization.
- **640GB and 480GB Capacities.** Provides the hefty capacities required for today's high-performance enterprise workgroups and remote offices/sites.
- **Front, Hot-swappable Disk Drives.** Ensures high data availability without interruption to user productivity.
- **Dual Gigabit Ethernet.** Stand-alone, load-balancing or failover modes provides flexibility and uptime.
- **Microsoft Active Directory Service.** Provides seamless compatibility with today's evolving network environments.
- **UNIX Network Information Service.** Supports authentication from UNIX/Linux servers and simplifies management of large groups.
- **Snapshot Technology.** Delivers non-disruptive backups and immediate data recovery.
- **Server-to-Server Synchronization Software.** Automated data replication for easy near-line backups or content distribution.
- **Backup Express for Guardian Software for Local Tape Backup.** Simplifies remote office/site backup and reduces network traffic.

**Drive Down the Cost of Workgroup Storage in Your Enterprise** The Quantum Guardian 4400 server extends the success of the award-winning Snap Server 4100 to deliver up to 640GB of cross-platform Network Attached Storage (NAS) for file sharing in demanding workgroup and remote office environments.

As a dedicated storage appliance designed for rapid deployment, the Guardian 4400 provides simple, cost-effective workgroup file sharing. It also delivers hot-swappable disk drives, dual Gigabit Ethernet ports and Snapshot technology—features usually found only in more expensive solutions.

#### Availability

With front-loading, hot-swappable disk drives combined with RAID 5, dual Gigabit Ethernet ports and UPS support, it all adds up to maximum system and data availability in a workgroup server. The included Server-to-Server (S2S) Synchronization software offers an easy, automated data replication solution that copies data from one or more source Quantum NAS servers to one or more destination Quantum NAS servers to provide even greater availability.

#### Manageability

The Guardian 4400 server is easy to manage from anywhere on your network with support for Microsoft's Active Directory Service (ADS), UNIX Network Information Service (NIS), Simple Network Management Protocol (SNMP), quotas, environmental monitoring tools and an easy to navigate, browser-based user interface.

#### Interoperability

The Guardian 4400 server integrates seamlessly into your heterogeneous networked environment. It provides cross-platform support for mixed

Windows, UNIX/Linux and Macintosh environments—plus HTTP and FTP support—to enable seamless sharing of information between network clients.

#### Security

Guardian 4400 servers meet your workgroup security requirements with Kerberos authentication (v5), Access Control Lists (ACLs), Secure Sockets Layer (SSL) and Secure Shell (SSH).

#### Data Protection

The Guardian 4400 server offers multiple data protection options for maximum flexibility. Compatibility with industry leading network backup tools including remote agent support ensures seamless integration into any environment. For help with the ever-shrinking backup window, Backup Express™ for Guardian software is pre-installed at no additional cost and gives you the option to backup and archive quickly to locally-attached tape. The Guardian 4400 also features Snapshot technology for point-in-time images of the file system, S2S data replication utility and PowerQuest DataKeeper software for automatic Windows client backup.

#### Simplicity

The Quantum Guardian 4400 server is an appliance that installs in less than 15 minutes, is easy to use and easy to administer. Its minimal administration combined with low acquisition cost deliver an unmatched total cost of ownership...and ease of ownership.



## GUARDIAN 4400 SPECIFICATIONS

**Network Transport Protocols**

TCP/IP  
AppleTalk

**Network File Protocols**

Microsoft (CIFS/SMB)  
UNIX (NFS v3)  
Apple (AFP)  
Internet (HTTP 1.1)  
File Transport Protocol (FTP)

**Network Client Types**

Windows: 95, 98, NT 4.0, 2000, Me, XP  
Macintosh: OS 8.x, 9.x, X v10.x  
UNIX: Solaris 7, 8, 9; HP-UX 11; AIX 4.3.3;  
UnixWare 7.1.1; OpenServer v5.0.5  
Linux: Red Hat Linux 6.2, 7.2

**Server Emulation**

Windows 2000  
Windows NT 4.0  
AppleShare 6.0  
NFS 3.0  
DHCP

**Network Security**

Active Directory Service (ADS)  
Kerberos authentication v5  
Microsoft Dynamic DNS  
Microsoft Lightweight Directory Access Protocol (LDAP v3) client  
Windows Domain Controller  
UNIX Network Information Service (NIS)  
File and folder Access Control List (ACL) security for users and groups  
Secure Sockets Layer (SSL) v3 128-bit encryption  
Secure Shell (SSH)

**System Management**

Browser-based user interface for remote system administration  
NASManager client utility (platform independent)  
SNMP (MIB II and Host Resource MIB)  
User disk space quotas for Windows, UNIX/Linux and Macintosh  
Group disk space quotas for UNIX/Linux  
Environmental monitoring  
E-mail alerts

**Network Connection**

Standard dual Gigabit Ethernet (auto-negotiating 10/100/1000)

**Automatic IP Address Assignment**

Supports DHCP for automatic assignment of IP address

**Multiple File System Options**

The Guardian 4400 server can be configured for enhanced performance or maximum file protection.

Options include:

- RAID 5 (drive striping with parity): The size of one drive is reserved for parity checking. With four drives, yields 357GB usable capacity for the Guardian 4400/480GB and 475GB usable capacity for the Guardian 4400/640GB (shipping default).
- RAID 1 (drive mirroring): Additional drive(s) duplicate the first drive for maximum data protection.
- RAID 0 (drive striping): Large virtual drive with data striped across all drives of the array. No loss in usable capacity.

**Java Application Environment**

Enables the development of applications based on embedded Java technology

**Data Protection**

Snapshots: Snapshot technology enables immediate or scheduled point-in-time image of the file system.

**Network Backup:** Compatible with Syncsort Backup Express, VERITAS NetBackup/Backup Exec, CA BrightStor ARCserve, Legato NetWorker and Microsoft Backup Software for Windows 95/98/NT/2000/Me/XP. Compatible with Dantz Retrospect for Macintosh.

**Backup Agents:** Support for VERITAS NetBackup/Backup Exec, Legato NetWorker and CA BrightStor ARCserve.

**Local Backup:** Backup Express for Guardian.

**SCSI:** Ultra160 SCSI 68-pin LVD (SCSI standard on Guardian 4400/640GB, optional on Guardian 4400/480GB).

**Client Backup:** PowerQuest DataKeeper software (unlimited user license) for backup of Windows files.

**Replication:** Server-to-Server Synchronization software copies the contents of one or more source Quantum NAS servers to one or more destination Quantum NAS servers for near-line backup or content distribution.

**UPS Support:** APC PowerChute for graceful system shutdown.

**Physical Specifications**

Dimensions  
Width.....16.7 in (42.5 cm)  
Depth.....18.4 in (46.8 cm)  
Height.....1.65 in (4.2 cm), 1U  
Weight.....20.5 lbs (9.3 kg)

**Agency Certifications**

UL, cUL, CE, FCC Class A, C-Tick, Nemko, TuV, BSMI

**Processor**

1.26GHz Pentium III with 512KB L2 Cache (Guardian 4400/640GB model)  
1GHz Pentium III with 256KB L2 Cache (Guardian 4400/480GB model)

**Memory**

512MB ECC SDRAM (Guardian 4400/640GB model)  
256MB ECC SDRAM (Guardian 4400/480GB model)

**Power**

Single 162W supply  
Power Rating: 100-240 VAC, 50-60Hz, auto-sensing  
Input Current: 3.0A (RMS) for 115VAC, 1.5A (RMS) for 230VAC  
Power Consumption: 90W (steady rate), 162W (maximum)  
Heat Dissipation: 307 BTUs/hr

**Operating Environment**

50° F to 95° F (10° C to 35° C)  
15% to 90% humidity (non-condensing)  
Vibration: .25G at 5-500Hz for 120 minutes  
Shock: 6 pulses of 33G for up to 2ms  
Altitude: 0 ft to 8,000 ft (0m to 2,438m)

**Non-operating Environment**

14° F to 140° F (-10° C to 60° C)  
5% to 95% humidity (non-condensing)  
Vibration: 2G at 5-500Hz for 90 minutes  
Altitude: 0 ft to 35,000 ft (0m to 10,668m)

**North American Warranty**

Three-year Rapid Exchange  
On-site support available

**Models**

Guardian 4400 640GB  
Guardian 4400 480GB



1. SCSI standard on Guardian 4400/640GB, optional on Guardian 4400/480GB

**Quantum**  
Guardian 4400

For more information contact:

**Unylogix Technologies Inc**

Tel: (514) 253-5200

email: [info@unylogix.com](mailto:info@unylogix.com)  
web: [www.unylogix.com](http://www.unylogix.com)