

# Snap Server™ 18000

## High-Performance Block and File Storage for Enterprise Data Management



The Adaptec® Snap Server 18000 redefines cost-effective enterprise storage with its high-powered performance, unified block and file storage architecture, centralized storage management, comprehensive data protection suite, advanced data availability, and instant, best-in-class, scalability. Ideal for primary and secondary storage with a wide range of applications, the 18000 simplifies the management of data distributed throughout the enterprise.

### Unmatched Price/Performance

Advanced performance features, including dual Intel Xeon processors with Symmetric Multi-Processing (SMP) capabilities, Serial ATA (SATA) disk drives, 2GB of Double Data Rate (DDR) system memory and 512MB of battery-backed cache make the 18000 the fastest Snap Server ever. Combine this level of performance with an unbelievable price and it's easy to see that the 18000 delivers unbeatable value in its class.

### Best-in-Class Scalability

Add Snap Disk 30 expansion arrays to meet growing storage needs, up to a total capacity of 31.2TB. The unique Instant Capacity Expansion (I.C.E.) feature for on-demand scalability and provisioning allows for easily increasing storage space without the risk involved with time-consuming RAID reconfiguration.

### Advanced Data Availability

RAID 5, hot-swappable SATA disk drives, redundant power and cooling, dual-Gigabit Ethernet ports, battery-backed nonvolatile memory (NVRAM), and UPS support maximize system and data availability. Optional replication software delivers advanced, asynchronous byte-level data replication ideal for nearline backup or off-site disaster recovery.

The feature-rich 18000 is also an ideal solution for common storage challenges.

### Application Server Storage

The Snap Server 18000 supports the Microsoft iSCSI initiator making it ideal for storing Microsoft Exchange and SQL Server data. The 18000 also supports iSCSI initiators for Solaris and Linux and can easily be used for cost effective capacity expansion of existing servers. iSCSI removes the distance limitations associated with direct-attached storage (DAS) and leverages industry-standard Ethernet to eliminate the cost and complexity associated with Fibre Channel storage area networks (SANs).

### Storage Consolidation

Consolidating storage allows enterprises to significantly increase return on investment (ROI) and reduce the total cost of ownership (TCO). By integrating iSCSI to offer simultaneous block and file storage on a single device, the Snap Server 18000 eliminates the need for disparate storage pools, simplifies data management, consolidates storage resources, and maximizes storage dollars.

### Accelerated Backup

Reduce backup and restore times by backing up directly to the Snap Server 18000 and then archiving to tape. The native snapshot technology embedded in the GuardianOS provides consistent, point-in-time incremental backups that can be stored online to further reduce tape costs. Integrated BakBone NetVault software, backup agent support for VERITAS, CA, and Legato, and Network Data Management Protocol (NDMP) support provide the ultimate backup flexibility.

### Key Features

- Unified Block and File Storage with Industry-Standard iSCSI Support
- Scalable from 2TB to 31.2TB
- Dual Intel Xeon Processors
- Battery-Backed NVRAM
- Redundant Hardware Components
- Snapshot Technology
- Integrated CA eTrust Antivirus Software
- Active Directory Service (ADS) Support
- Embedded BakBone NetVault Software
- NDMP Support
- Optional Snap EDR Enterprise-Class Data Replication, Management, and Protection

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## GuardianOS Specifications

<p><b>Network Transport Protocols</b></p> <ul style="list-style-type: none"> <li>• TCP/IP</li> <li>• UDP/IP</li> <li>• AppleTalk</li> </ul> <p><b>Network File Protocols</b></p> <ul style="list-style-type: none"> <li>• Microsoft Networks (CIFS/SMB)</li> <li>• UNIX (NFS v2/3)</li> <li>• Apple (AFP 2.0)</li> <li>• Internet (HTTP 1.1)</li> <li>• File Transport Protocol (FTP)</li> </ul> <p><b>Network Block Protocols</b></p> <p><b>iSCSI Target Support</b></p> <ul style="list-style-type: none"> <li>• Snap Servers running GuardianOS v3 SP1 or higher</li> </ul> <p><b>iSCSI Software Initiator Support</b></p> <ul style="list-style-type: none"> <li>• Windows: Microsoft iSCSI Initiator v1.03, 1.04</li> <li>• Solaris: Cisco SN 5400 Series iSCSI Driver v3.3.5</li> <li>• Linux: UNH-iSCSI Initiator v1.5.3</li> </ul> <p><b>iSCSI Hardware Initiator Support</b></p> <ul style="list-style-type: none"> <li>• Adaptec 7211C (copper) iSCSI Adapter</li> <li>• Intel PRO/1000T IP Storage Adapter v2.0, 2.1</li> <li>• Alacritech SES1001 iSCSI Adapter</li> </ul> <p><b>Network Client Types</b></p> <ul style="list-style-type: none"> <li>• Windows: 95, 98, Me, NT 4.0, 2000, 2003, XP</li> <li>• Macintosh: OS 8.x, 9.x, 10.x</li> <li>• UNIX: Solaris 7, 8, 9; HP-UX 11; AIX 4.3.3, 5.x</li> <li>• Linux: Red Hat Linux 7.x, 8.x, 9.x</li> </ul> <p><b>Server Emulation</b></p> <ul style="list-style-type: none"> <li>• Windows 2000/2003</li> <li>• Windows NT 4.0</li> <li>• AppleShare 6.0</li> <li>• NFS v2/3</li> <li>• FTP</li> </ul> <p><b>Automatic IP Address Assignment</b></p> <ul style="list-style-type: none"> <li>• Supports DHCP for automatic assignment of IP address</li> </ul>	<p><b>Network Security</b></p> <ul style="list-style-type: none"> <li>• CA eTrust Antivirus Software</li> <li>• Microsoft Active Directory Service (ADS Member Server)</li> <li>• Kerberos Authentication v5</li> <li>• CHAP Authentication (iSCSI target level)</li> <li>• Microsoft Lightweight Directory Access Protocol (LDAP v3 client)</li> <li>• Windows NT Domain (member server)</li> <li>• UNIX Network Information Service (NIS) Support</li> <li>• File and Folder Access Control List (ACL) Security for Users and Groups</li> <li>• Secure Sockets Layer (SSL) v2/3 128-bit Encryption</li> <li>• Transport Layer Security (TLS) v1</li> </ul> <p><b>System Management</b></p> <ul style="list-style-type: none"> <li>• Browser-based User Interface for Remote Administration</li> <li>• Snap Server Manager™ Client-based Setup Utility (platform-independent)</li> <li>• Secure Shell (SSH) for backup agent installation</li> <li>• SNMP (MIB II and Host Resource MIB)</li> <li>• User Disk Space Quotas for Windows, Macintosh, and UNIX/Linux</li> <li>• Group Disk Space Quotas for UNIX/Linux</li> <li>• Environmental Monitoring</li> <li>• Email Notification Alerts</li> </ul> <p><b>RAID Options</b></p> <p>The Snap Server 18000 can be configured for enhanced performance or maximum file protection. Options include:</p> <ul style="list-style-type: none"> <li>• RAID 5 (drive striping with parity): For each array, the size of one drive is reserved for parity. Provides the best combination of performance and data protection.</li> <li>• RAID 1 (drive mirroring): One or more drives duplicate one drive for maximum data protection.</li> <li>• RAID 0 (drive striping): Large virtual drive with data striped across all drives of the array to provide maximum performance with no loss in usable capacity.</li> <li>• 24 drives maximum per RAID</li> <li>• Global hot spare support</li> <li>• Instant Capacity Expansion (I.C.E.) logically groups RAIDs for dynamic online scalability</li> <li>• 16TB maximum per volume</li> </ul>	<p><b>Data Protection</b></p> <ul style="list-style-type: none"> <li>• Snapshots: Snapshot technology enables immediate or scheduled point-in-time images of the file system. Supports up to 250 concurrent snapshots.<sup>1</sup></li> <li>• Replication: Optional S2S v2 byte-level replication for cost-effective nearline backup and recovery.</li> <li>• Enterprise-Class Replication: Optional Snap EDR offers enhanced security, performance and management for demanding enterprise environments.</li> <li>• Local Backup: Integrated BakBone NetVault Workgroup Edition.</li> <li>• Network Backup: Supports VERITAS NetBackup/Backup Exec, CA BrightStor ARCserve/Enterprise, Legato NetWorker, BakBone NetVault, Microsoft Backup Software for Windows 95, 98, Me, NT, 2000, XP, and NDMP v2, v3, v4. Compatible with Dantz Retrospect for Macintosh.</li> <li>• Windows Clients: Standard Symantec DataKeeper software (unlimited user license) included for backup of Windows clients.</li> <li>• Client Imaging: Compatible with Symantec V2i Protector Desktop Edition for image-based backup and restore of Windows clients.</li> <li>• Server Imaging: Compatible with Symantec V2i Protector Server Edition for image-based backup and restore of Windows servers.</li> <li>• UPS Support: APC brand UPS with Network Management Cards are supported for graceful system shutdown.</li> </ul>
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<sup>1</sup> GuardianOS supports a maximum of 250 concurrent snapshots minus the number of active volumes.

# Snap Server™ 18000

## Snap Server 18000 Specifications

<p><b>Physical</b></p> <ul style="list-style-type: none"> <li>Width: 17.3 in. (439.4 mm)</li> <li>Height: 3.5 in. (88.9 mm), 2U</li> <li>Depth: 26.5 in. (673 mm)</li> <li>Weight: 70 lbs. (31.75 kg)</li> </ul> <p><b>Agency Certifications</b></p> <ul style="list-style-type: none"> <li>UL, cUL, CE, FCC Class A, C-Tick, Nemko, TuV</li> </ul> <p><b>Processor</b></p> <ul style="list-style-type: none"> <li>Dual 3.06GHz Intel Xeon Processors with Symmetric Multi-Processing (SMP)</li> <li>Premium configuration: 1MB L2 cache; Standard configuration: 512KB L2 cache</li> <li>533 MHz front-side system bus</li> </ul> <p><b>ECC Memory</b></p> <ul style="list-style-type: none"> <li>2GB PC2100 DDR SDRAM running at 266MHz</li> </ul> <p><b>Nonvolatile Memory</b></p> <ul style="list-style-type: none"> <li>512MB Battery-backed NVRAM</li> </ul> <p><b>Drive Configuration</b></p> <ul style="list-style-type: none"> <li>2TB: Eight (8) 250GB hot-swappable Serial ATA (SATA) drives with 2TB raw capacity</li> <li>3.2TB: Eight (8) 400GB hot-swappable Serial ATA drives with 3.2TB raw capacity</li> <li>Preconfigured as a RAID 5 array</li> </ul>	<p><b>Network Interface</b></p> <ul style="list-style-type: none"> <li>Dual-Gigabit Ethernet ports (autosensing 10/100/1000)</li> <li>Support for stand-alone, failover and load-balancing modes</li> </ul> <p><b>Expansion Array Interface</b></p> <ul style="list-style-type: none"> <li>Optional single port Fibre Channel Host Bus Adapter (auto-negotiating 1Gb/2Gb per sec)</li> </ul> <p><b>Local Tape Backup Interface</b></p> <ul style="list-style-type: none"> <li>Dual-channel Ultra320 SCSI 68-pin VHDCI</li> </ul> <p><b>Available PCI-X Expansion Slots</b></p> <ul style="list-style-type: none"> <li>One (1) full-height 64-Bit/133MHz</li> <li>Three (3) half-height 64-Bit/133MHz</li> </ul> <p><b>Power</b></p> <ul style="list-style-type: none"> <li>Power Supplies: Dual 500W (hot-swappable)</li> <li>Power Rating: 100-240 VAC, 47-63 Hz, autosensing</li> <li>Input Current: 3.2A (RMS) for 115 VAC, 1.6A (RMS) for 230 VAC</li> <li>Power Consumption: 370W (steady state) 500W (maximum)</li> </ul> <p><b>Heat Dissipation</b></p> <ul style="list-style-type: none"> <li>1262 BTUs/hr</li> </ul>	<p><b>IT Power Systems</b></p> <p>The Snap Server 18000 is also designed for IT power systems with phase-to-phase voltage 230 V</p> <p><b>Predicted Reliability</b></p> <p>Calculated from Bellcore Reliability Prediction Procedure TR-322, Issue 6</p> <ul style="list-style-type: none"> <li>System MTBF (raw): 18,675 Hrs</li> <li>System MTBF (redundant): 107,312 Hrs<sup>2</sup></li> </ul> <p><b>Environmental limits, operating</b></p> <ul style="list-style-type: none"> <li>Temperature: 50° F to 95° F (10° C to 35° C)</li> <li>Non-condensing humidity: 15% to 90%</li> <li>Vibration: .01G at 10-300Hz random for up to 120 minutes</li> <li>Shock: 6 pulses of 33G for up to 2 ms</li> <li>Altitude: -50 ft to 10,000 ft (-16 m to 3,048 m)</li> </ul> <p><b>Environmental limits, non-operating</b></p> <ul style="list-style-type: none"> <li>Temperature: 14° F to 149° F (-10° C to 60° C)</li> <li>Non-condensing humidity: 5% to 95%</li> <li>Vibration: 2G at 5-500Hz for up to 90 minutes</li> <li>Altitude: 0 ft to 35,000 ft (0 m to 10,668 m)</li> </ul>
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<sup>2</sup> Factors out redundant (N+1) components including disk drives, power supplies and cooling fans.

Models	Part Number
Premium Snap Server 18000 3.2TB	5325301915
Snap Server 18000 2TB	5325301662
Snap Server 18000 4TB (includes 1 2TB SD 30 expansion array)	5325301893
Snap Server 18000 6TB (includes 1 4TB SD 30 expansion array)	5325301843
Accessories	
Snap EDR (Enterprise Data Replicator)	5325301862
Spares Kit (Contains hard drive, power supply and cooling fan)	5325301835
Controller Card (Required for Expansion)	5325301808
Spare 18000 Hard Drive	5325301680
Spare 18000 Power Supply	5325301685
Spare 18000 Fan	5325301687
Snap Disk 30	
SD 30 2TB	5325301891
SD 30 4TB	5325301696
Spare SD 30 Power Supply	5325301700
Spare SD 30 Controller	5325301701
Spare SD 30 Drive	5325301702
Spare SD 30 Cable Set	5325301704

# Snap Server™ 18000

## Worldwide Warranty

Snap Server hardware and software are backed by world-class service and support to protect your investment from downtime. With Adaptec services, you have complete peace of mind.

Standard services with the Snap Server 18000 include:

- Three-year limited hardware warranty, with first-year Next-Business-Day onsite parts and labor, upon completed registration. Onsite warranty subject to regional availability; check with your local Adaptec sales team.

## Optional Support Programs

Today's mission-critical environments require maximum uptime and rapid resolution should problems arise. Adaptec provides a comprehensive suite of service and support upgrade options created to help you protect your business operations. Providing additional levels of technical service and support, Adaptec services extends the standard protection packages already included with all Adaptec products, including the market-leading Snap Server products. From extending your warranty phone support to complete onsite support for same day recovery, you can select the level of support that best fits your business and resource requirements.

For more information about Adaptec services, please contact your distributor. Or, call Adaptec at 1-800-442-7274 or visit us online at <http://www.adaptec.com/target/servicereg.html>

## Important Support Notes

- *Adaptec will NOT provide support until the service contract has been registered*
- *Upon registration, Adaptec requires a 15 business day activation period*
- *Service coverage may be prorated depending on when the service contract is registered within one year from the product purchase date*
- *Adaptec reserves the right to perform Service Quality Assurance for new service purchases when the product purchase date is more than six months in the past or for existing service contracts that have lapsed for more than 30 days*



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World Wide Web: <http://www.adaptec.com>

**Pre-Sales Support:** US and Canada: 1 (800) 442-7274 or (408) 957-7274

**Pre-Sales Support:** Europe: Tel: (44) 1276-854528 or Fax: (44) 1276-854505

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