

# GuardianOS 7.7

GuardianOS® 7.7 powers the SnapServer® Network Attached Storage servers and is optimized to provide the business-grade reliability and out-of-the-box integration needed to work with today's business applications and infrastructure. The award-winning GuardianOS has over a decade of the proven stability, expertise and innovation you can rely on.

SnapServers attach directly to your network and install in minutes, and are easily deployed without application downtime. You can consolidate multiple systems by creating file and block-level volumes on a single SnapServer.

This flexible, cost effective platform allows you to expand seamlessly as your capacity and performance needs grow. It includes SnapSync™ which is a simple, secure enterprise file sync and share solution that provides unlimited access to corporate files from any device and from anywhere.

**Operating System:** GuardianOS 7.7

**Network File Protocols:** SMB, CIFS, NFS, AFP, HTTP, and FTP.

**Block Protocols:** iSCSI

**Microsoft Windows Integration:** Active Directory Services (ADS), NTLM, Kerberos, and VSS/VDS for iSCSI LUNs.

**Advanced Security:** Fully integrate with existing Windows Active Directory Domain or UNIX with NIS or LDAP.

**Data Protection:** DynamicRAID, High-performance Snapshots, continuous replication, heterogeneous replication, Enterprise Files Sync & Share, RDX integration and integration with 3rd party backup software, including VEEAM™, Backup Exec™, and NetBackup™.

**Management Interface:** Web Management Interface, SSH-based Command Line Interface (CLI), and Java-based SnapServer Manager tool.

## New Features

- **SnapSync**  
Access corporate data securely on any device from anywhere
- **RDX Backup Scheduler**  
Automated policy based data backup to RDX removable media for archiving and off-site compliance
- **Encrypted Continuous Replication:**  
A secure continuous data replication with near zero data loss (RPO ~ near zero) for disaster recovery at no additional cost

## Features



### Unified Storage

Store file and block data on a single SnapServer



### DynamicRAID

Mix and match drives of different sizes to grow RAID arrays



### Dynamic Volumes

Grow and shrink volumes with DynamicRAID and Thin provisioning



### Advanced Security

Fully integrate with existing Windows Active Directory Domain or UNIX with NIS or LDAP



### Management

Setup, implement and maintain SnapServers with ease



### SnapSync

Enterprise file sync & share that enables secure access to corporate files from any device and from anywhere



### Snap Encrypted Continuous Replication (Snap ECR)

Disaster Recovery solution at no additional cost



### Snap Enterprise Data Replicator (Snap EDR)

Replicate data across heterogeneous platforms: SnapServers, Windows, Linux, UNIX, Mac OS



### RDX Backup

Backup to removable RDX media directly from SnapServer for archiving and off-site compliance



### SnapCLOUD on Microsoft Azure

Dynamically expand storage into the cloud with the same features and operations as on-premise data or backup primary SnapServer data to the cloud



### Backup Support

SnapServer is certified with a range of 3rd party backup software including VEEAM, Backup Exec and NetBackup

## Key Features

Feature	Function	Benefit
<b>System Management</b>		
Home directories	Automatically creates home directories for each user upon first login to the network share	Allows administrators to auto-allocate capacity for each user that is accessible across Windows, UNIX/Linux and Macintosh platforms
User and group quotas	Enforces disk space thresholds for Users and Groups*	Allows administrators to govern how much disk space is consumed by a particular user or group
Command Line Interface (CLI)	Alternative administration of your SnapServer with a set of over 150 commands	Enables automation and scripting of routine tasks
SnapStorage Manager	Management of SnapServer® NAS, SnapSAN® and REO® storage systems from a single console	Simplifies deployment and management of multiple Overland Storage systems
SNMP and Email Alerts	Real-time notices of system events and errors	Informs you of the status of your SnapServer via email or an SNMP management system
Configuration Disaster Recovery/ Backup	Exports a backup image of the SnapServer configuration settings	Allows system cloning or quick disaster recovery restoration of the SnapServer configuration
UPS Support	Gracefully shuts down the SnapServer in the event that a power outage lasts longer than the UPS battery; Automatically restarts the SnapServer when power is restored	Protects SnapServer data during extended power outages and brings the SnapServer back online as soon as power is made available
<b>Data Protection</b>		
DynamicRAID	Automatic RAID creation and with a single or dual parity and incorporation of new drives with no disruption	Takes advantage of mix and match hard drives
Traditional RAID	Create RAID arrays using 0,1,5,6 or 10	Allows for granular control of RAID arrays and hard drives
Dynamic volumes	NAS volumes can be resized at any time	No penalty for initial volume setup when storage needs change
High performance snapshots	Creates incremental; point-in-time copies of a NAS volume	Enables non-disruptive file state backups on scheduled or instant basis without degrading write performance
Snap ECR	Snap-to-Snap encrypted continuous replication of changed blocks only at wire speed	Implement a disaster recovery solution for your environment at no additional cost
Snap EDR	Byte-level; incremental file replication over LAN or WAN to other SnapServers or installed agents on other platforms	Replicate between heterogeneous platforms for backup, file distribution and disaster recovery
RDX backup	Copy files to removable RDX media	Take data offsite for disaster recovery & sharing
SnapCLOUD	Cloud deployment on Microsoft Azure	Dynamically expand storage into the cloud with the same features and operations as on-premise data or backup primary SnapServer data to the cloud
Backup support	Support for 3rd party backup agents for direct backup to SAS or USB attached tape devices	Allows you to backup your SnapServer directly to disk, VTL or tape device
<b>Security and Services</b>		
Microsoft Active Directory Services (ADS)	Integrates within a Windows Active Directory Domain	Your SnapServer will recognize established users and groups in your Windows domain
Support for native Windows permissions and ACLs	Integrates with wireless permissions and ACLS	Matches Windows behavior for permissions and ACLs
Lightweight Directory Access Protocol (LDAP)	Provides integration with your existing UNIX user and group database	Your SnapServer will recognize the users and groups you've established in your UNIX/Linux domain
Windows-to-UNIX ID Mapping	Map users and groups across protocols	Allows you to maintain consistent permissions for users with multiple system types (i.e. Windows and UNIX clients)
Windows Only Tree	Windows controls SnapServer file permissions in a mixed environment	Prevents switching of attributes between UNIX/Mac and Windows files
Microsoft VSS	Performs application consistent snapshots of iSCSI LUNs	Enables you to create frequent, space-efficient backups of block-level volumes on your SnapServer
Microsoft VDS	Allows iSCSI LUNs to be managed natively within Windows	Eases administration by allowing you to manage the block-level volumes on your SnapServer directly from the Microsoft Management Console
Microsoft Multi-Path I/O (MPIO)	Provides multiple paths (via iSCSI) between a Windows server and the storage located on a SnapServer	Enables High Availability (HA) through redundant connections
<b>Utilities</b>		
Data Import Tool	Imports data from a server, client, or NAS device to a SnapServer	Simplifies the process of moving data to your SnapServer

\*Traditional RAID; no group quota for DynamicRAID

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For a full list of Sphere 3D addresses and phone numbers, please see our website at: <http://sphere3d.com/contact-us/>.