



BrickStor Release Documentation

Version 23.2.0



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Welcome to Version 23.2.0

Thank you for choosing BrickStor SP. The RackTop team is pleased to announce the availability of BrickStor SP 23.2.0.

About the Release Documentation

The release notes provide critical and release-specific information for BrickStor SP 23.2.0, including upgrade instructions and behavior changes. Read this document even if you are familiar with BrickStor SP releases and have previous experience upgrading BrickStor SP installations.

Upgrading to BrickStor SP 23.2.0

Please refer to the Upgrading section of the User Guide for detailed upgrade instructions. It is always recommended to notify support of your intention to upgrade so that any special use cases can be addressed and an Engineer can be available to assist.

Change Log

23.2

BrickStor SP

New Improvements and Functionality Updates

Active Defense

- User behavior resource utilization, detection and performance improvements
- Incidents are created for excessive SMB access denied activity
- Improved detection sensitivity
- Observation mode
- Security rules support AD groups
- User configurable rules and exception handling
- SMB 1.0 triggers alerts

SMB

- SMB locking improvements for highly concurrent workloads
- Support for 256 bit ciphers
- Improved resource utilization

NFS

- Improved support for NFS 4.1 HA with VMware

HA

- Stability and sensor detection improvements
- Improved failover times with large pools

Snapshots and Indexing

- New indexing engine improves resource utilization when indexing snapshots

Identity Services

- Supports queries while AD caching is in progress
- Service caches AD metadata by default
- Supports case-insensitive lookups
- Clustered systems now join AD concurrently as part of cluster creation

- AD join supports alternate OU containers

Configuration Database

- Confd supports multiple instances when running on Windows witness

Health Services

- Improved healthd resource utilization and performance
- Improved readability of health alerts
- Alerts now auto-pruned when no longer relevant
- Added sensor for confd
- Added sensor for drive IO latencies
- Added filtering by component status
- Improved detection algorithms to improve false positive reporting
- Added health history report

TDM

- Improved worker threading for better resource utilization
- Improved dataset destruction handling
- Support for delaying transfer based on configurable modification time

OS

- Added sesadm utility for enclosure diagnosis and troubleshooting
- Added driver support for esas5hba
- Removed support for ATTO Virtual SES
- Improved SCSI polling and timeouts
- Improved system stability with multiple failing disk devices
- Added support for HPE EL8000
- Dataset encryption uses AES-GCM by default (improved performance)
- Support for Intel Scalable v3
- Improved and standardized default NDMP configuration
- Webhooks support common public certificate CAs

23.0.6.7

New & Notable Features

Active Defense

- Enhanced active protections from ransomware, malware, and unusual activity

- Detect and stop unusual data access patterns
- Detect and alert on malicious administrators
- Incident response engine with workflow and easy remediation

Rolling Snapshots

- Optimize recovery by continuously recording up-to-the-minute data changes within a rolling window

Health Engine

- Expanded health monitoring with integrated reporting
- Third party notification integrations with Pagerduty, Microsoft Teams, Pushover, and Slack
- Custom alerting via webhooks

Reporting Engine

- Customize and subscribe to various system, service and compliance reports in html, pdf, csv or json format

OUBE

- Improved out-of-box experience with graphical console support
- Official Support for EC2 and Azure
- This release is officially supported to run in Amazon EC2 and Microsoft Azure clouds

Changes & Updates to Existing Features

- SMB now supports Hyper-V
- OpenSSH updated to 8.4p1
- SMB bugfixes for Macintosh Big Sur OS
- Configurable API timeouts
- Support for RES3FV288 enclosure
- Fixed issue where SMB oplocks block access to shares in certain scenarios
- Fixed issue where SMB open file handle prevents proper service shutdown in certain scenarios
- Improved dynamic hostname algorithm where duplicates could occur in certain circumstances
- Some virtual disks report incorrectly as spinning disks
- Fixed issue where MyRack Manager displayed structure warning for 10 drive vdev

Deprecated Features

Mongodb has been removed and is no longer supported

23.0.4.1

Updates to Existing Features

- Fixed unresponsive keyboard with RMM on scalable systems
- Fixed peer power issue with S2600WFT chassis
- Fixed NFS 4.1 failover timeouts with VMware
- Fixed race in obtaining domain info resulting in error applying permissions to dataset
- Fixed condition where removable (floppy, etc) drives are reported as potential data drives

23.0.3.49

Updates to Existing Features

- AHCI and SATA performance improvements for boot drives
- Console redraw improvement
- SMB bug fixes
- Fix TDM 'object not found'

23.0.2.34

Updates to Existing Features

- HA failover time improvements
- Reduced drive latencies by disabling sleep states

23.0.1.17

New & Notable Features

Active Defense

- Enhanced active protections from ransomware, malware, and unusual activity
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- Detect and alert on malicious administrators
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Rolling Snapshots

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Known Issues

Some html reports don't support dark mode

22.2.0

New Improvements and Functionality Updates

- SMB 3.1.1
- AES-GCM support
- Pre-Auth Integrity support

Improvements & Fixes

- Improved resource utilization and performance of ubcollectd & indexd at scale
- Initial setup menu allows NTP to be configured to use AD servers
- Extended license management from myRack Manager
- Reseating a cxgbe transceiver properly returns to up state
- Support for FE Series (2021 Model) Chassis
- Addresses NBMAND issues for NFS 4.x clients

Changes to Existing Features

- AFP was removed in 22.1.1.67. If you have not yet installed that version be aware it is no longer in the OS.
- RackTop call home for updates switched from <https://api.myracktop.com> to <https://myracktop.com> in 21.1.1.67. If applicable, check any outbound firewall policies to allow TCP port 443 to myracktop.com from the BrickStor SP appliances.
- A new database format for Data Protection and Replication logs was introduced in version 22. Existing logs are automatically migrated. If you are missing legacy log entries, contact RackTop Support for assistance.
- Python was removed in 22.1.1.67 and is no longer supported.

22.1.1

- Minor patch release addressing CVE-2020-1472 advisory.

22.1.0

New Improvements and Functionality Updates

UEFI boot

BrickStor SP installation now supports UEFI booting! This only applies to the new installations using 22.1 or newer version. Previously installed systems using Legacy mode will remain in Legacy mode.

Hardware support

- Intel R2000WFXXX chassis (Big Horn Peak)
- Intel x722 network adapters (i40)
- Atto Host Bust Adapters
- Emulex Fibre Channel adapters (initiator mode)
- HPE 3Par (iSCSI/FC)
- HPE Primera (iSCSI/FC)
- HPE XP8 (FC)
- HPE Nimble (iSCSI/FC)

- HPE Synergy

Console loader and login screens

We are happy to introduce redesigned loader and login screens. Both are simplified to improve usability and out of the box experience.

For newly installed systems the console login will present an initial configuration wizard. The wizard will assist in setting up network configuration for the management interface and step through the BrickStor SP registration.

Software registration

22.1 brings in enhanced registration process. The systems can now be licensed via myRackTop portal <https://myracktop.com>.

Changes to Existing Features

AFP is no longer part of the product. Be sure to migrate any existing AFP shares to SMB prior to upgrading to this version.

RackTop call home for updates switched from <https://api.myracktop.com> to <https://myracktop.com>. If applicable, check any outbound firewall policies to allow TCP port 443 to myracktop.com from the BrickStor SP appliances.

A new database format for Data Protection and Replication logs was introduced in version 22. Existing logs are automatically migrated. If you are missing legacy log entries, contact [RackTop Support](#) for assistance.

Python was removed from this release and is no longer supported.

Some other features received bug fixes: Replication, TDM, HA (pool import/export), Rack View, Mellanox driver. See [Resolved Issues](#) section for details.

22.0.2

New Improvements and Functionality Updates

This is a minor patch release. No new features.

22.0.0

New Improvements and Functionality UpdatesNew & Notable Features

Transparent Data Movement (TDM)

Transparent Data Movement (TDM) enables the seamless movement of data between tiers of storage within a BrickStor SP to external storage tiers including other BrickStor SP nodes, third party NFS capable storage and S3 compliant object storage. TDM is an advanced hierarchical storage management feature of the BrickStor SP operating system that enables policy-based security and compliance to be applied to data stored in the cloud or on third party storage systems. Policies can

be applied to the dataset to determine which target the data should tier to when policy dictates it should be moved to a more economical tier of storage. Users continue to access data through the same client protocols using the original file path and do not need to change their workflow. All data is compressed and encrypted before leaving the BrickStor SP, which means that data on untrusted 3rd party systems is safe.

All BrickStor SP operating systems version 22 and greater come with a 5TB TDM license. Additional capacity can be purchased from your sales team.

BrickStor SP Manager

The management interface previously known as myRack Manager has a new look, and many many functionality improvements, including:

- Improved warnings and feedback
- Numerous connection and connection management improvements
- Key Manager auto backup and status reporting support
- Permissions management improvements
- New HA and Peering management options
- Support for Replication updates
- Support for new TDM feature
- Improvements to User Behavior

Replication 2.0

The data replication engine was completely redesigned and is brand new in this version. New capabilities were introduced to include parallel transfers, an on-demand and efficient queueing mechanism, and a high-speed WAN optimized transport which improves data transfers on high latency links.

Improvements include:

- Configurable number of parallel streams per destination.
- Ability to cancel the sending of a snapshot.
- Ability to temporarily raise or lower a dataset's priority.
- Bandwidth limitations per source/destination pair.
- Further refinement of bandwidth during configurable peak hours.
- Proprietary high-speed transfer/Improved WAN Optimization. (licensed feature)
- Ability to skip over a snapshot.

BrickStor SP Branding

BrickStor SP is now known as "BrickStor Security Platform", and myRack Manager is now known as "BrickStor SP Manager". New color schemes and usability features have been introduced and improved, including:

- Improved warnings and feedback
- Numerous connection and connection management improvements

- Key Manager auto backup and status reporting support
- Permissions management improvements
- New HA and Peering management options
- Support for Replication updates
- Support for new TDM feature
- Improvements to User Behavior

Changes to Existing Features

This is a minor patch release. No changed features.

Deprecated Features

Apple Filing Protocol

AFP has been deprecated in this version. RackTop and Apple recommend using SMB instead.

Release Notes

23.0.6.7

Installation Notes

If you are running 23.0.5 or have installed 23.0.5 and have not set your hostname, then you may have to re-join the domain after installing this release.

If you are running a release earlier than 22.2, extra steps may be required. Please contact support for consultation.

23.0.4.1

Installation Notes

If you are running a release earlier than 22.2, extra steps may be required. Please contact support for consultation.

23.0.3.49

Installation Notes

If you are running a release earlier than 20.0.1, then it is recommended to first upgrade to 22.0.2.215 and then to 22.2.0.66 before upgrading to this release.

If you are running 22.0.2.215 or greater, it is recommended to first upgrade to 22.2.0.66 before upgrading to this release.

This upgrade path is to ensure your snapshot and replication logs properly migrate from mongodb as it is no longer present in this release.

23.0.2.34

Installation Notes

If you are running a release earlier than 20.0.1, then it is recommended to first upgrade to 22.0.2.215 and then to 22.2.0.66 before upgrading to this release.

If you are running 22.0.2.215 or greater, it is recommended to first upgrade to 22.2.0.66 before upgrading to this release.

This upgrade path is to ensure your snapshot and replication logs properly migrate from mongodb as it is no longer present in this release.

23.0.1.17

Installation Notes

If you are running a release earlier than 20.0.1, then it is recommended to first upgrade to 22.0.2.215 and then to 22.2.0.66 before upgrading to this release.

If you are running 22.0.2.215 or greater, it is recommended to first upgrade to 22.2.0.66 before upgrading to this release.

This upgrade path is to ensure your snapshot and replication logs properly migrate from mongod as it is no longer present in this release.

23.0.0.13

Installation Notes

If you are running a release earlier than 20.0.1, then it is recommended to first upgrade to 22.0.2.215 and then to 22.2.0.66 before upgrading to this release.

If you are running 22.0.2.215 or greater, it is recommended to first upgrade to 22.2.0.66 before upgrading to this release.

This upgrade path is to ensure your snapshot and replication logs properly migrate from mongod as it is no longer present in this release.

22.2.1.83

Installation Notes

If you are running a release earlier than 20.0.1, then it is recommended to first upgrade to 22.0.2.215 before upgrading to this release.

If you are running 22.0.2.215 or greater, it is recommended to first upgrade to 21.1.1.67 before upgrading to this release.

22.2.0.66

Installation Notes

If you are running a release earlier than 20.0.1, then it is recommended to first upgrade to 22.0.2.215 before upgrading to this release.

If you are running 22.0.2.215 or greater, it is recommended to first upgrade to 21.1.1.67 before upgrading to this release.

For Assistance

- [Online Resources](#)
- [Contact RackTop](#)

Online Resources

RackTop provides online resources to access documentation, software, and to open service requests. Use these resources to install and configure BrickStor software and to troubleshoot and resolve technical issues.

- RackTop Support site: <https://support.racktopsystems.com>
- Maintenance, Warranty and Policy Information: <https://www.racktopsystems.com/about-us/warranty-and-maintenance/>

Contact RackTop

If you cannot resolve an issue using the online resources listed above, contact RackTop Support:

- Email RackTop Support: support@racktopsystems.com
- Call RackTop Support: 1-888-472-2586