



## BrickStor Release Notes

Version 22



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## Welcome to Version 22.0.0

Thank you for choosing BrickStor. The RackTop team is pleased to announce the availability of BrickStor version 22.

## About the Release Notes

The release notes provide critical and release-specific information for Version 22.0.0, including upgrade instructions and behavior changes. Read this document even if you are familiar with BrickStor releases and have previous experience upgrading BrickStor installations.

## Features and Functionality

BrickStor SP Version {page-component-display-version} includes:

- [New & Notable Features](#)
- [Changes to Existing Features](#)
- [Deprecated Features](#)

## New & 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, which means that data on untrusted 3rd party systems is safe.

All BrickStor 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 is now known as “BrickStor Security Platform” or BrickStor SP, 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

### *Key Manager*

- In this release the RackTop Key Manager added support for automatic key transfers between authenticated BrickStor SP appliances; used for off appliance key backup, replication of encrypted datasets, and for maintaining a distributed key store within a HA cluster.
- Remote BrickStor SP appliances running RackTop Key Manager are configured in the BrickStor SP Manager for syncing of all encryption keys, only keys for encrypted datasets that are configured to auto-replicate to the peer, or no keys. Additionally, it is configurable whether a successful key sync is required for the key operation to take place, i.e. prevent rekeying a SED because the backup appliance is offline, to ensure that the key is always in multiple locations.
- BrickStor SP Manager has the option to easily recover keys backed up to a remote BrickStor SP appliance, recovering only the keys where the recovering appliance is in the list of key senders, allowing multiple appliances with varying key permissions to store keys on the same backup appliance.
- BrickStor SP Manager reports status information about the overarching key manager, all peers, and all sync sources. The top level shows key manager type, status, time in the status, and any warnings. Below is the list of appliances that keys are being auto sent to, as well that appliance's online status, time in that status, configuration of which keys are replicated and required or best effort. Below that is the list of the appliances that have sent keys to the current appliance, including the number of keys, online status, time in the status, and whether that appliance is currently authenticated to send us keys.
- Finally, RackTop Key Manager now runs out of the box, without the need to set a password.

### *Peering*

- This release introduces peer-to-peer communication over HTTPS, which offers improved performance and functionality compared to SSH peering.
- HTTPS peering is used to securely establish connections between BrickStor SP appliances, then to securely communicate between them using end-to-end encryption. HTTPS peering is used for sharing encryption keys between appliances and for replication.
- The System tab of BrickStor SP Manager is used to manage peer relationships. In the Peers section the local appliance may add a connection to a remote peer or allow a remote peer to connect to the local appliance. A peer relationship may be established with network interfaces on the same subnet, including HA resource groups.

## Deprecated Features

### *Apple Filing Protocol*

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

## Upgrade to Version 22

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.



## Resolved Issues

Bugs listed here were verified as resolved when this BrickStor version was initially released.

Key	Description
BSR-6715	A problem in the Mellanox driver which could cause a system to panic.
BSR-6685	ARC tuning. This fix optimized the Adaptive Replacement Cache which under certain circumstances would affect system performance.
BSR-6658	Incorrect timestamps in metricsd.
BSR-6656	Replication service lower case customer number in log
BSR-6617	Added support for static routes in High Availability configurations
BSR-6526	Fixed issue where child datasets of a parent NFS share were not accessible by older nfs clients
BSR-6448	Peering - SSH peering cannot find ssh keyfile
BSR-6307	Fixed issue where TCP sockets using cubic congestion control would stop transmitting.
BSR-6266	Fixed issue where SSL certificates were flagged as a vulnerability in a Nessus scan in HA configurations.
BSR-6063	Fixed issue where NDMP listen would fails if the ndmpd/mover-nic property was an empty string
BSR-5811	Fixed issue where the influxd service would fail due to memory consumption.
BSR-3207	Fixed issue where the LDAP client would require name service cache to be enabled and affect SMB.
MYR-1897	Fixed issue in UI where a reboot would fail and not record audit.
MYR-1233	This was a bug that in some cases prevented removing disabled replication peers in the UI.

## Known Issues

Bugs listed here were known to exist when this BrickStor version was initially released.

## 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](mailto:support@racktopsystems.com)
- Call RackTop Support: 1-888-472-2586