

GHOST: Instant Data Migration

Global Hands-Off Storage Transfer (GHOST) for BrickStor SP

Cut Over Before You Copy

If you're refreshing any NAS, you know the drill: copy data first, cut over last. You know what comes with it, too. The project runs for weeks. The maintenance window has to be long enough to finish the final sync, so it eats a weekend, and the data goes read only while it does. ACLs get flattened and inherited rights disappear, and nobody finds out until a user complains. Robocopy and rsync jobs stall or restart, symlinks and junctions arrive broken, already-tiered shares trigger mass rehydration, and none of it leaves verification you could hand to an auditor. All the while, the migration window is the least monitored your data will ever be.

GHOST inverts the order. It sounds backward. It isn't. Users move to BrickStor SP first, then data migrates in the background transparently over time. Cyberstorage protections engage at cutover, and users keep working while files are migrated from the source invisibly. It's not just faster migration; it's a different architecture.

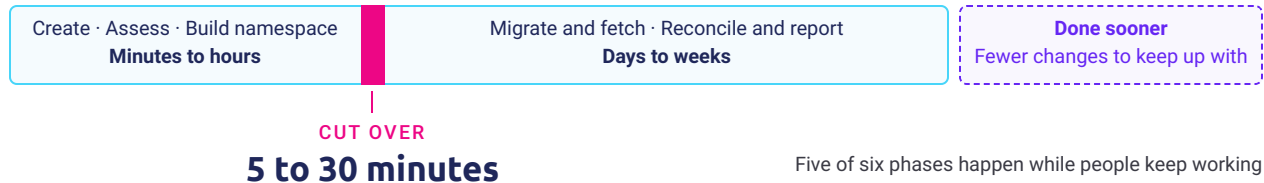
Maintenance windows shrink from days to minutes. No frozen data. No extended outage. Just an immediate switch to a modern, secure platform.

MIGRATION TIMELINE

TRADITIONAL MIGRATION



WITH GHOST



- **Cut over within hours:** BrickStor SP begins by creating GHOST files, stubs mirroring your entire source NAS structure, with all folder hierarchies and permissions intact. This complete namespace is in place before content migration starts. You redirect users immediately. They see their data structure immediately.
- **Keep working through it:** Live reads and writes land on BrickStor SP from the moment of cutover. Files not yet migrated are fetched from the source on demand, invisibly to the user. No frozen data. No extended maintenance window.
- **Protect from day one:** Active Defense, immutable snapshots, ABAC (Attribute-Based Access Control), and audit logging engage at cutover, not after the last byte arrives. The silent window of exposure is gone.
- **Modernize while you migrate:** GHOST doesn't just move data, it modernizes how you access it. Alongside NFS and SMB, BrickStor SP delivers S3 and secure browser access via BrickStor Web Drive, without rewriting a single application. **Move faster. Protect sooner. Modernize as you go.**

Cyberstorage Protections, Live at Cutover

The moment users redirect to BrickStor SP, your data is protected by capabilities legacy NAS cannot match.

- **Active Defense:** Real-time detection of ransomware and data exfiltration at the storage layer.
- **Immutable Snapshots:** Recovery points designed to resist encryption and deletion by ransomware.
- **ABAC & Label Inheritance:** Fine-grained access controls inherited from source, enforceable across SMB and Web Drive.
- **Audit & Compliance Reporting:** Continuous, queryable visibility into who accessed what, when.

Key Capabilities

- **Broad source compatibility:** Any SMB or NFS share, any NAS or file server.
- **Pre-migration assessment:** Capacity, file count, folder count, and ACL analysis before a single byte moves.
- **Metadata-preserving namespace:** The new GHOST files match source metadata so cutover is invisible to users.
- **Active access during migration:** Reads and writes continue on BrickStor SP throughout background copy.
- **Access controls preserved:** Source ACLs and attributes carried over.
- **Validation and reporting:** Reconciliation report with file hashes, timestamps, and full provenance.

How GHOST Works

A six-step method compresses months of exposure into hours.

- 1. Create.** Provision the destination dataset on BrickStor SP.
- 2. Assess.** Analyze the source share: capacity, file count, folder count, ACLs.
- 3. Build namespace.** Directory and GHOST files created that mirror source metadata and access controls. *No content moves yet.*
- 4. Cut over.** Redirect users and applications to BrickStor SP. *Cyberstorage protections engage.*
- 5. Migrate and fetch.** Move file content in the background. Files opened before they arrive are pulled from the source on demand.
- 6. Reconcile and report.** Validate completion. Generate a migration report with file hashes and timestamps.

Use Case	What GHOST Delivers
Tech refresh	Retire aging NAS without weekend cutover marathons
NAS consolidation	Collapse multiple file shares onto one secured platform
Modernization	Gain data-centric zero trust protections and cross-protocol access over SMB, NFS, S3, and the browser
Post-incident replatforming	Rapidly move off compromised infrastructure onto a zero-trust data layer

Designed for:

Any organization looking to replatform file data from legacy NAS or file servers without extended downtime or lost permissions.

Get Started:

See a live GHOST cutover demo or schedule a technical briefing with the RackTop team:

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Availability:

GHOST is part of BrickStor OS 23.9 and newer