QoreStor Refcount Migration Script - README & Usage Guide

This document provides usage instructions, workflow summary, and troubleshooting notes for the QoreStor Refcount Migration Script. This script automates scanning, copying, and verifying refcount files in a QoreStor environment.

Features

- Dry-run mode (--dry-run) to simulate the entire process without making changes.
- Scan-only mode (--scan-only) to calculate sizes without copying.
- Checksum verification (--checksum-verify) for maximum safety.
- Progress bars during rsync operations (simulated in dry-run, live in real runs).
- Service control: stops services before copy, restarts them after changes.
- Automatic backup of the configuration file before edits.
- Safe rsync flags (-aHAX, numeric IDs, sparse, dirs, whole-file, human-readable).
- Config preview with diffs for both dry-run and live mode.
- Debug mode (--debug) for extra logging.
- Hidden --test mode for local testing (skips mountpoint checks).

Usage

./Move_RefCounts_<version>.sh [OPTIONS] [MOUNTPOINT]

Options

- --dry-run: Simulate the run. Shows planned copy, fake progress bars, and config preview.
- --scan-only: Scan repository refcount sizes and report totals only.
- --checksum-verify: Use rsync --checksum for verification (slower but ensures integrity).
- --debug: Show extra debug logging.
- --test: Hidden option for local testing (skips mountpoint checks).

Arguments

MOUNTPOINT: The target mountpoint for the SSD directory (/path/to/mount). The script will create and use <MOUNTPOINT>/ssd/ as the target.

Workflow Summary

1. Startup: Parses arguments, sets mode, sets up logging, captures system info.
2. Scan Phase: Identifies refcount directories and calculates total size/file counts.
3. Service Control: Verifies state, stops the 'ocards' service before migration.
4. Copy Phase: Builds file list, runs rsync with safe flags and progress bars.
5. Verification Phase (optional): Runs rsync again with verification flags to confirm files copied.
6. Configuration Update: Backs up config, updates TGTSSDDIR and PLATFORM_DS_REFCNTS_ON_SSD, shows diff preview.
7. Service Restart: Starts 'ocards' service and waits until system is in Operational Mode.
8. Summary: Prints results and logs details to /var/log/oca_edit/oca_edit_<timestamp>.log.

Example Runs

Dry-run without target (plan only):

./Move_RefCounts_<version>.sh --dry-run

Dry-run with target mount available:

./Move_RefCounts_<version>.sh --dry-run /testmnt

Live run with checksum verification:

./Move_RefCounts_<version>.sh --checksum-verify /testmnt

Scan-only mode:

./Move_RefCounts_<version>.sh --scan-only

Troubleshooting

- Error: Mountpoint must be a full path starting with '/': Ensure you provide an absolute path, e.g., /testmnt not testmnt.
- Error: Not enough free space: The target mountpoint does not have enough space to receive the files. Free space or choose another mount.
- ✗ Stop timeout for service: The service did not stop in time. Check logs or manually stop the service before retrying.
- ✗ Rsync failed: Check the log file for rsync error codes. Code 11 = IO error (often due to missing directories). The script now includes --dirs to ensure empty directories are copied.
- Verification errors: Ensure the target filesystem is mounted correctly and has enough space. Retry with --checksum-verify for thorough comparison.