

QoreStor refcount migration Script User Guide (v3.3.1)

The QoreStor Configuration Edit Script (version 3.3.1) helps migrate refcount data to SSD storage safely while verifying data integrity and updating system configuration automatically.

1. Overview

The script automates tasks involved in refcount migration, including scanning, copying, verification, and updating the configuration file (/etc/oca/oca.cfg). It supports multiple operational modes (scan-only, dry-run, and live) and ensures data consistency during SSD transitions.

2. Requirements

Before running the script, ensure the following prerequisites are met:

- Root or administrative privileges.
- The following commands are available: systemctl, system, rsync, du, df, awk, grep.
- Configuration file located at /etc/oca/oca.cfg.
- Target SSD mount is accessible and writable.

3. Script Modes

The script can run in three modes:

1. ****Scan-Only Mode (--scan-only)****

- Scans and reports refcount data size across integer directories.
- No configuration or data changes.

2. ****Dry-Run Mode (--dry-run)****

- Simulates the migration, showing configuration edits and data transfers without making changes.
- Useful for validation before performing a live run.

3. ****Live Mode (default)****

- Executes the actual migration, copies refcount data to SSD, updates configuration, and restarts services.
- Automatically creates a configuration backup.

4. Command Syntax

Usage:

'''

./oca_edit.sh [--dry-run] [--scan-only] [--checksum-verify] [MOUNTPOINT]

'''

Arguments:

- `--dry-run` – Simulates operations without changes.
- `--scan-only` – Performs analysis only.
- `--checksum-verify` – Adds rsync checksum verification.
- `MOUNTPPOINT` – Target SSD mount point path.

Examples:

- Scan only: `./oca_edit.sh --scan-only`
- Dry-run simulation: `./oca_edit.sh --dry-run /mnt/ssd_target`
- Live migration: `./oca_edit.sh /mnt/ssd_target`

5. Configuration File Handling

The script modifies `/etc/oca/oca.cfg` safely to point to the new SSD target. Changes include:

- Updating `export TGTSSDDIR=` to the new mount path.
- Ensuring only one TGTSSDDIR entry exists (removes duplicates).
- Switching `PLATFORM_DS_REFCNTS_ON_SSD` to 1 if not already enabled.
- Automatically creating a timestamped backup in `/etc/oca/`.

6. Typical Workflow

1. **Scan** refcount data:
`./oca_edit.sh --scan-only`
2. **Validate configuration (Dry-Run)**:
`./oca_edit.sh --dry-run /mnt/ssd_target`
3. **Run live migration**:
`./oca_edit.sh /mnt/ssd_target`
4. **Review logs**: Located in `/var/log/oca_edit/oca_edit_<timestamp>.log`.
5. **Confirm configuration**: Verify updated entries in `/etc/oca/oca.cfg`.

7. Logging and Debugging

- Logs are stored in `/var/log/oca_edit/`.
- Enable detailed debug output using `--debug`.
- Progress bars are shown during rsync operations.
- Debug logs include layout detection, service states, and variable details.

8. Troubleshooting

- **Insufficient space**: Use `df -h` to confirm SSD capacity.
- **Service not restarting**: Check `systemctl status ocards`.
- **Missing commands**: Ensure QoreStor CLI tools are installed.
- **Verbose output**: Run with `--debug` for detailed traces.