IBM Transparent Data Migration Facility for z/OS

Migrate data more effectively with continuous application availability

Highlights

Enable continuous application availability during migration

Operate in heterogeneous storage environments

Help reduce risk of data loss by tracking and validating data

Reduce cost and complexity with a standard migration process

Migrating data can have potentially disastrous effects: unplanned downtime, loss of revenue, unavailability of crucial applications and erosion of end-user experience. But keeping data on older technology poses its own set of risks. The key is to be able to safely migrate data without disrupting your business to take advantage of the latest advancements in technology.

To ensure a successful data migration, you need careful planning, with a migration solution that is less complex, yet compatible with multivendor storage environments. The solution should provide end-to-end, nondisruptive data mobility to help you avoid the risk of data loss while ensuring data integrity and application availability during the migration.

IBM Transparent Data Migration Facility (TDMF) for z/OS® is a host-based software. IBM Transparent Data Migration Facility (TDMF) for z/OS® is host- based software that can enable local or global data migration for storage attached to IBM z/OS mainframes across multivendor environments.

This software enables continuous application availability, reduced risk of data loss, and faster time to realize the business value of new technologies. It leverages expertise gained from executing more than 3,500 nondisruptive migrations in more than 800 organizations worldwide.

IBM Transparent Data Migration Facility (TDMF) for z/OS facilitates non-disruptive data migration by confirming system volumes, monitoring I/O, copying and synchronizing data, and redirecting I/O seamlessly to the new storage with minimal application downtime. Each step ensures the integrity and availability of data as source volumes are moved in enterprise environments.

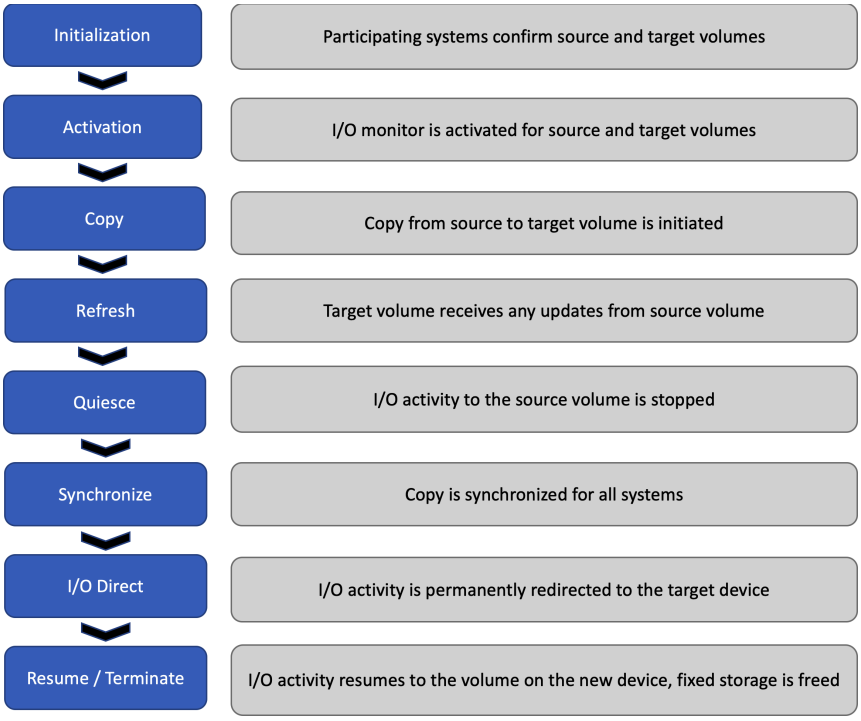

Figure 1. IBM Transparent Data Migration Facility for z/OS – Migration phases

Advanced capabilities

- Non-disruptively SWAP from old to new devices
- Point-in-time volume copies and application backups for testing
- Offline Volume Access (OVA) facility for volume testing and synchronization
- Switch-back facility to monitor swapped volumes for updates and have migration switched back to the original volumes
- Vendor agnostic capabilities that work with all the leading DASD manufacturers with awareness of individual replication technologies
- Pacing to prevent TDMF I/O from affecting application performance on volumes being migrated
- TCP/IP Migrations (replication/copy) performed across long distances for Data Center/LPAR consolidation and disaster recovery sites
- HyperSwap® aware functionality that dynamically disables or enables HyperSwap via commands to migrate GDPS®/PPRC volumes
- GDPS/xDR proxy support on Linux® on IBM Z® running under z/VM® using the z/VM Agent for TDMF for z/OS
- Migration between different volume sizes with dynamic ICKDSF invocation
- Leverage the latest IBM DS8000® security features to prevent 'missing Agents', SPID Fence and Soft Fence
- Non-disruptive migration of attached z/VM volumes without a z/VM outage
- Support for migrating Linux on IBM Z Guest volumes under z/VM
- Migration Planning Assistant that simplifies many aspects related to planning and executing large-scale migrations

Helping enable continuous application availability

The TDMF for z/OS offering has a dynamic swap capability that facilitates nondisruptive data migration by transparently directing I/O from the source to the target storage. Its industry-leading switch-back facility helps maintain application availability by enabling fallback to the original source configuration for consistent group migrations at the volume level. The entire migration process is automated, which helps prevent manual intervention that could affect the performance and availability of storage subsystems.

TDMF for z/OS can work in multivendor storage environments and support virtually any mainframe-compatible storage hardware, irrespective of manufacturer or microcode level. Its ability to work in heterogeneous environments helps you save time and money, and reduce the complexities associated with migration of large quantities of data for consistency groups, and it can provide more flexibility to change or add storage vendors when refreshing storage technology.

Tracking and validating the migration process to help prevent data loss

This data migration solution helps you avoid the risk of data corruption or loss and helps ensure the integrity and availability of your critical business applications during the migration process by tracking and validating the data transfer. The nondisruptive data mobility process helps in migrating data more quickly and easily, while maintaining data integrity and enhanced performance of critical applications—as well as reducing migration requirements through the dynamic pacing feature of the software. Using this host-based software enables you to adopt new technologies more quickly and helps ensure that your applications remain online and available.

Why IBM?

By integrating proven IBM best practices and expertise with TDMF for z/OS, IBM can help you minimize the risks, costs, and potential for application outages associated with data migration. IBM has used this trusted data migration technology in more than 3,500 migration projects. Today, more than 800 organizations worldwide rely on TDMF for z/OS technology to migrate their data.

Storage for IBM Z provides a comprehensive portfolio of enterprise storage solutions designed to match the mission-critical capabilities of IBM Z, adding next-level performance, security, and resilience for mission-critical workloads across hybrid multi-cloud deployments.

For more information

To learn more about IBM Transparent Data Migration Facility for z/OS, contact your IBM representative or IBM Business Partner, or visit https://www.ibm.com/products/transparent-data-migration-facility

Produced in the
United States of America
July 2025