



EMC AutoSwap

Providing Continuous Availability for z/OS and OS/390 Mainframe Users

Continuous availability for mainframe applications and data has become nothing short of imperative. The ability to automatically and cost-effectively “point” applications from one disk to another with no downtime has enormous financial value to mainframe users.

To address this challenge, EMC Corp., the world leader in products, services, and solutions for information storage and management, has once again tapped into its long history of mainframe storage innovations and produced another—the new AutoSwap software.

AutoSwap transparently moves application workloads from disks in one subsystem to disks on another, thereby providing higher levels of availability and flexibility to mainframe users. This disk swapping causes no application interruption. Disk swaps may be initiated manually or the process can occur automatically based on events and rules that can be established by the data center. For example, a customer running a multi-site parallel sysplex may be required to perform a site power down. Parallel Sysplex allows the processing to be moved to the secondary site. AutoSwap allows the I/O workload to be seamlessly redirected to the secondary DASD as well.

Similar in function to IBM’s HyperSwap feature, EMC’s AutoSwap can be implemented instead of an IBM GDPS environment without the cost and complexity of a GDPS implementation. When used in conjunction with EMC’s SRDF and Consistency Groups, AutoSwap provides the subset of GDPS functionality that many mainframe environments crave, but at a much lower acquisition and implementation cost. Most customers will opt to perform their own AutoSwap implementation.

How It Works

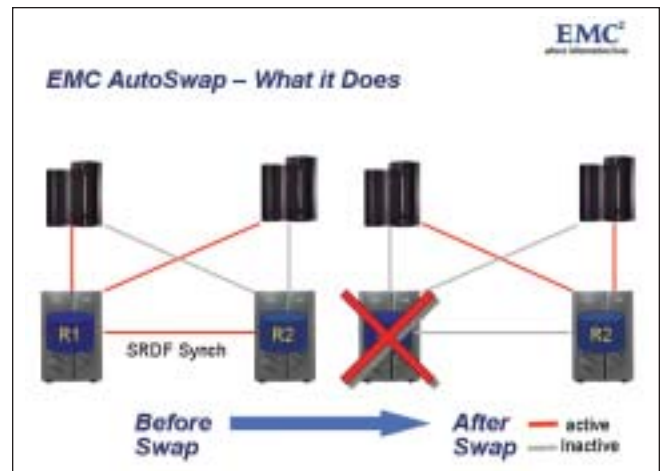
AutoSwap relies on EMC’s SRDF software running synchronously. The z/OS systems running AutoSwap must be channel-attached to both the source and target Symmetrix. In normal operation, the source volumes are online to z/OS. When AutoSwap is invoked, z/OS moves I/O operations to the target volumes. This swap can be done manually or automatically when AutoSwap detects a failure or an issue predefined by the data center as a reason for a swap. Swaps are performed with no impact to the application workload. The I/Os are briefly held while the contents of the unit control blocks (UCBs) of the affected volumes are swapped.

For continuous availability for unexpected failure or disaster events, AutoSwap relies on SRDF with Consistency Groups invoked to maintain identical sets of mirrored

volumes. AutoSwap’s Consistent Swap option protects data against unforeseen events during the swap process and ensures that the source and destination volumes have absolute dependent write consistency.

Benefits

AutoSwap provides a new level of affordable availability and flexibility for mainframe customers who can’t tolerate downtime. With AutoSwap, events that previously would have disrupted the flow of business, such as loss of an entire storage



subsystem due to a sprinkler system malfunction, volume movement for load management, or building maintenance action, become non-events for mainframe applications. Equally important, by providing the ability to move data with applications, AutoSwap helps ensure that application processing meets the highest performance requirements.

AutoSwap protects against loss of all data paths from the host to the primary storage, including loss of the Symmetrix storage system itself.

AutoSwap increases operational efficiency, since the automation necessary to continue the business in the event of a failure is already in place. In addition, AutoSwap reduces risk, since in the event of loss of a disk or subsystem, application uptime is maintained. Finally, AutoSwap helps CIOs address regulatory compliance by meeting required availability levels.

AutoSwap is available from EMC Corp., 176 South Street, Hopkinton, MA 01748. Voice: 508-435-1000/800-767-7799; Website: www.emc.com. **Z**