

SHC-OSD (BS2000/OSD) Version 6.0

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Symmetrix® Host Component for BS2000/OSD

SHC-OSD provides the information services and commands required to control the Symmetrix SRDF and TimeFinder functions. The Symmetrix SRDF family (Symmetrix Remote Data Facility) allows data to be copied to other (remote) Symmetrix systems. The Symmetrix TimeFinder family allows the generation of additional volume copies within a Symmetrix system, which can be processed separately after splitting.

SHC-OSD provides selected information about the Symmetrix configuration, as well as about the current status of SRDF and TimeFinder processing.

SRDF integration enables suitable responses to be specified to handle any error, or the access paths to be switched to remote copied data following an error as well as setting different copy modes.

The TimeFinder function provides commands to manage the whole suite of mirroring opportunities offered by TimeFinder/Mirror (BCV), TimeFinder/Clone and TimeFinder/Snap.



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Functional Description

Show Function

The global Show function provides selected information about the Symmetrix configuration, such as Enginuity version, cache size and remote link configuration. The device-specific Show function provides information about device names, device type, status, RAID mode, volume size, etc. The SRDF Show functions allow the user to call up information about the status of remote mirrored disks and about SRDF settings. The TimeFinder Show function displays the current processing status.

This functionality is not restricted to the volumes defined on the local BS2000/OSD system. That means, for example, that volumes of multiple VM2000 or other systems as well as remote volumes (single hop, i.e. only one connection node allowed) can be controlled centrally from one BS2000/OSD system without the need for additional I/O paths (particularly relevant with SRDF over long distances).

In addition to the information output at the interactive interface, information is also set in S variables.

SRDF Function

SHC-OSD can be used to set SRDF mode. The Symmetrix can differentiate between synchronous (SRDF/S), asynchronous consistent (SRDF/A) and self-adapting modes. Similarly, it is possible to define the response required if errors occur in the remote configuration or in connections to the remote configuration. The SRDF function has commands to control the activation or deactivation of SRDF paths or link directors.

The functions Concurrent SRDF and Switched SRDF open a new variety of configuration options and scenarios.

SRDF/A offers a consistent remote mirroring function for long distances.

TimeFinder Function

Commands for the TimeFinder function can control the mirroring of volumes on additional volumes supporting mirroring by TimeFinder/Mirror (BCV), TimeFinder/Clone and TimeFinder/Snap.

Integrated renaming is available for SF pubsets (single-feature pubsets). The renaming function refers to system data. The procedures themselves ensure the consistent implementation of stored volume labels in separate meta data. Since very few applications can work with inconsistent data (open files, etc.), it is strongly recommended to create a consistency point prior to splitting.

Consistent splitting of multiple mirrored volumes of a (shared) pubset is enabled by stopping all I/Os to these volumes before the split (HOLD-IO). This means that the split operations are performed virtually simultaneously and enables parallel data resources to be made available for recovery-capable applications even in cases where a pubset consists of multiple volumes.

- **TimeFinder/Mirror (BCV)** is the classical way to non-disruptively create highly-available mirror images of Symmetrix volumes.

TimeFinder/Mirror is integrated in the HSMS Concurrent Copy function, i.e. backup data can be read from split-off BCV volumes, thus delivering a significant performance boost and providing restart capability.

The Symmetrix multi-BCV function optimizes administration and copy times of alternately used BCV mirrors.

The Symmetrix function Concurrent-BCV supports simultaneous mirroring on 2 BCVs.

- **TimeFinder/Clone** is a flexible, highly functional way to create pointer-based full volume copies of Symmetrix-DMX volumes, also usable for volume migration.

- **TimeFinder/Snap** is a flexible, highly functional way to create pointer-based space-saving copies of Symmetrix-DMX volumes.

With BS2000/OSD V7.0 TimeFinder/Snap is integrated with the new SnapSet features.

Monitor Function

SHC-OSD provides a monitoring function to detect status changes in the Symmetrix configuration and status changes in devices, TimeFinder and SRDF pairs. When status changes are detected, descriptive messages are output to the console, enabling manual or automatic (e.g. using PROP-XT) responses to be made.

Program Description

SHC-OSD V6.0 is based on EMC's open Symmetrix interface SYMAPI (Symmetrix Application Interface), available to EMC partners within the framework of the EMC Developers Program. SYMAPI uses POSIX interfaces and runs in the TU state, but also includes a TPR subsystem for handling privileged functions.

Unlike hardware-related interfaces, SYMAPI guarantees much greater compatibility and stability. Among other benefits, this also enables automatic compatible support for new Enginuity versions and hardware models.

Technical data

Hardware

BS2000/OSD Business Server/Business Server SX Series Symmetrix with Enginuity 5x66, 5x67, 5568, 5669, 5670, 5671 or 5771

Type S channel or FC from BS2000 to Symmetrix

Use of SRDF or TimeFinder functions requires the corresponding firmware licenses.

The Symmetrix system must be correctly configured to use SRDF or TimeFinder.

Software

BS2000/OSD-BC V5.0 or higher (with POSIX-BC subsystem) or OSD/XC V1.0 or higher

optional: SDF-P (if S variables are used)

Operating mode

Interactive and batch mode

Implementation language

C, SPL, Assembler

User interface

Commands English

Message texts English/German (optional)

Installation

By the user, in accordance with the Release notice

Documentation

SHC-OSD User guide

Training

See course offer at:

<http://www.fujitsu-siemens.com/training>

Conditions

This software product can be purchased by the customer against a single payment or leased in accordance with the conditions for the use of software products.

Warranty

Class: A

Delivery format: Machine language

Ordering and delivery

This software product may be obtained from your local Fujitsu Siemens Computers regional office.