ETERNUS SF
Express V15.0/
Storage Cruiser V15.0/
AdvancedCopy Manager V15.0

Glossary

Preface

Purpose

This manual explains the terms used by the following Storage Management Software ETERNUS SF products (hereafter referred to as "ETERNUS SF series"):

- ETERNUS SF Express (hereafter referred to as "Express")

- ETERNUS SF Storage Cruiser (hereafter referred to as "Storage Cruiser")

- ETERNUS SF AdvancedCopy Manager (hereafter referred to as "AdvancedCopy Manager")

Intended Readers

This manual is intended for the peoples who read manuals of Express, Storage Cruiser or AdvancedCopy Manager.

Notation

The names, abbreviations, and symbols shown below are used in this manual.

Products of Fujitsu Storage Systems ETERNUS and Storage Management Software ETERNUS SF

Formal name	Abbreviation			
ETERNUS DX60/DX60 S2 ETERNUS DX80/DX80 S2 ETERNUS DX90/DX90 S2	-		ETERNUS DX series	ETERNUS Disk storage system
ETERNUS DX410 ETERNUS DX440	ETERNUS DX400 series	ETERNUS DX400/DX400 S2 series		
ETERNUS DX410 S2 ETERNUS DX440 S2	ETERNUS DX400 S2 series			
ETERNUS DX8100 ETERNUS DX8400 ETERNUS DX8700	ETERNUS DX8000 series	ETERNUS DX8000/DX8000 S2 series		
ETERNUS DX8100 S2 ETERNUS DX8700 S2	ETERNUS DX8000 S2 series			
ETERNUS2000 ETERNUS4000 ETERNUS8000	-			
Web GUI of ETERNUS DX series	ETERNUS Web GUI			
ETERNUSmgr				

Software products

Formal name	Abbreviation
Microsoft(R) Cluster Service	MSCS
Microsoft(R) Windows Server(R) Failover Clustering	WSFC
Microsoft(R) Exchange Server	Exchange Server
Microsoft(R) SQL Server(TM)	SQL Server
PRIMECLUSTER Global Disk Services	GDS
Symfoware Server Enterprise Extended Edition Symfoware Server Enterprise Edition	Symfoware

Formal name	Abbreviation
VMware(R) ESX(R)	VMware ESX
VMware(R) ESXi(TM)	VMware ESXi
VMware(R) vCenter(TM) Server	VMware vCenter Server or vCenter Server

Manuals

Formal name	Abbreviation
ETERNUS SF Express / ETERNUS SF Storage Cruiser / ETERNUS SF AdvancedCopy Manager Installation and Setup Guide	ETERNUS SF Installation and Setup Guide
ETERNUS SF Express / ETERNUS SF Storage Cruiser / ETERNUS SF AdvancedCopy Manager Migration Guide	ETERNUS SF Migration Guide
ETERNUS SF Express / ETERNUS SF Storage Cruiser / ETERNUS SF AdvancedCopy Manager Web Console Guide	ETERNUS SF Web Console Guide
ETERNUS SF Express / ETERNUS SF AdvancedCopy Manager Operation Guide for Copy Control Module	ETERNUS SF Operation Guide for Copy Control Module
ETERNUS SF Storage Cruiser / ETERNUS SF AdvancedCopy Manager Cluster Environment Setup Guide	ETERNUS SF Cluster Environment Setup Guide
ETERNUS SF Express / ETERNUS SF Storage Cruiser / ETERNUS SF AdvancedCopy Manager Messages	ETERNUS SF Messages
ETERNUS SF Express / ETERNUS SF Storage Cruiser Event Guide	ETERNUS SF Event Guide
ETERNUS SF Express / ETERNUS SF Storage Cruiser / ETERNUS SF AdvancedCopy Manager Glossary	ETERNUS SF Glossary

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Manual organization and reading suggestions

Manual organization

The following table describes the Manual organization of Express, Storage Cruiser and AdvancedCopy Manager.

When to read	Related manuals (abbreviated)	Related products (**NOTE**)			Explanation
		EXP	SC	ACM	
Before installation	Quick Reference	Yes	Yes	Yes	This manual is unique for each product. The following manuals are available: - Express Quick Reference - Storage Cruiser Quick Reference - AdvancedCopy Manager Quick Reference
	Overview	No	No	Yes	This manual is unique for each product.
During installation	Installation and Setup Guide	Yes			This manual is common for all products.
	Cluster Environment Setup Guide	No	Yes		This manual is common for Storage Cruiser and AdvancedCopy Manager.
	Migration Guide	Yes			This manual is common for all products.
During operation	Operation Guide	Yes	Yes	Yes	This manual is unique for each product. The following manuals are available: - Express Operation Guide - Storage Cruiser Operation Guide - Storage Cruiser Operation Guide for Optimization Option - AdvancedCopy Manager Operation Guide (for Windows) - AdvancedCopy Manager Operation Guide (for Solaris) - AdvancedCopy Manager Operation Guide (for Linux) - AdvancedCopy Manager Operation Guide (for HP-UX) - AdvancedCopy Manager Operation Guide (for AIX)
	Operation Guide for Copy Control Module	Yes	No	Yes	This manual is common for Express and AdvancedCopy Manager.
	Web Console Guide	Yes			This manual is common for all products.
Anytime	Event Guide	Yes		No	This manual is common for Express and Storage Cruiser.

When to read	Related manuals (abbreviated)	Related products (**NOTE**)			Explanation
		EXP	SC	ACM	
	Messages		Yes		This manual is common for all products.
	Glossary		Yes		This manual is common for all products.

NOTE: "EXP" indicates Express, "SC" indicates Storage Cruiser and "ACM" indicates AdvancedCopy Manager.

How to read manuals

Please use the following table to find the most useful information in the Express, Storage Cruiser and AdvancedCopy Manager manuals to answer your inquiry.

Purpose	Related products (**NOTE**)	Manual	Main contents	How to read
Acquiring a product overview and basic operation knowledge	EXP	- Express Quick Reference	- Product overview - Installation decision - Overview of the necessary tasks from installation to first use	Please read if you want to acquire a fundamental knowledge of the product and its operation in order to decide to install it or not.
	SC	- Storage Cruiser Quick Reference		
	ACM	- AdvancedCopy Manager Quick Reference		
		- AdvancedCopy Manager Overview	- Main functions - Linkable applications - Procedure overview for Advanced Copy of ETERNUS Disk storage system	
Deciding if a version upgrade is required	common	- ETERNUS SF Migration Guide	- Incompatibilities with previous version - Notes and cautions about version upgrade - Version upgrade procedure	Please read if you want to upgrade from a previous version.
Installing and correctly operating the product Setting up operating environment depending on purpose	common	- ETERNUS SF Installation and Setup Guide	- Operating environment - Installation procedure - Setup procedure - Uninstallation procedure	Please read if you want to install and setup the product.
	SC, ACM	- ETERNUS SF Cluster Environment Setup Guide	- Supported cluster software - Installation procedure for a clustered system - Setup procedure for a clustered system - Uninstallation procedure for a clustered system	Please read if you want to install and setup the product on a clustered system.
Administration and operation of the installed system	EXP	- Express Operation Guide	- Starting and stopping the software - Device monitoring	Please read if you want to start or shutdown the system, monitor the operation status, do

Purpose	Related products (**NOTE**)	Manual	Main contents	How to read
			- Data copy inside the storage system - Necessary tasks after an architectural modification of the system as well as product maintenance	backup/restore operations, etc.
	SC	- Storage Cruiser Operation Guide	- Starting and stopping the software - Device monitoring - Necessary tasks after an architectural modification of the system as well as product maintenance - Command reference	
		- Storage Cruiser Operation Guide for Optimization Option	- Operating environment construction - Operating status monitoring - Necessary tasks after an architectural modification of the system as well as product maintenance - Command reference	
	EXP, ACM	- ETERNUS SF Operation Guide for Copy Control Module	- Starting and stopping the software	
	ACM	- AdvancedCopy Manager Operation Guide (for Windows) - AdvancedCopy Manager Operation Guide (for Solaris) - AdvancedCopy Manager Operation Guide (for Linux) - AdvancedCopy Manager Operation Guide (for HP-UX) - AdvancedCopy Manager Operation Guide (for AIX)	- Data backup/restore inside the storage system - Necessary tasks after an architectural modification of the system as well as product maintenance - Command reference	
	common	- ETERNUS SF Web Console Guide	- Operating environment - Screen layout description	Please read if you want to understand the ETERNUS SF Web Console.
Dealing with messages issued by the software	common	- ETERNUS SF Messages	- Messages and their explanations - Parameter (variable information) description - System action	Please read if you want a practical way of investigating and dealing with messages issued by the software.

Purpose	Related products (**NOTE**)	Manual	Main contents	How to read
			- Countermeasures	
Dealing with events issued by the software	EXP, SC	- ETERNUS SF Event Guide	- Phenomenon of event - Countermeasures	Please read if you need to find a practical way of investigating and dealing with events.
Researching the meaning of specific terms related to the products and other important terms	common	- ETERNUS SF Glossary	- Product specific terminology explanation - Explanation of important terminology appearing in the manual - Synonyms and related terms - Proper form of abbreviated terms	Please read if you want to learn the meaning of important terms, product specific terms or abbreviations used in the manuals.

NOTE: "EXP" indicates Express, "SC" indicates Storage Cruiser and "ACM" indicates AdvancedCopy Manager.

Contents

Glossary

The special terms used in the manuals of following software are explained below.

- ETERNUS SF Express

- ETERNUS SF Storage Cruiser

- ETERNUS SF AdvancedCopy Manager

Access path

Logical path for accessing storage from a server node. It is constructed by defining the host, Fibre Channel switch, storage, binding, and zoning settings.

Access volume

It is a volume in the ETERNUS Disk storage system, and it is necessary for Express or AdvancedCopy Manager to be able to control the Advanced Copy function of ETERNUS Disk storage system.

Active site

AdvancedCopy Manager backup environment that is normally active.

AdvancedCopy Manager's agent

Generic term referring to AdvancedCopy Manager-related services/daemons and applications used for backup or replication existing in a Managed Server.

AdvancedCopy Manager database

Generic term referring to management information such as registry, repository and management files for AdvancedCopy Manager.

AdvancedCopy Manager's manager

Generic term referring to AdvancedCopy Manager-related services/daemons and applications existing in a Management Server.

Advanced Copy function

This is a generic name of hardware-based copy function of ETERNUS Disk storage system.

Affinity Group

It is the unit in which logical volumes in storage are grouped. This is used when a set of volumes accessed from a server are defined.

Aggregate

The physical storage pool attached to a RAID group and a volume so that the volume capacity can be flexible.

Backup history

Backup data that is managed by backup management, and other backup related information.

Backup management files

Generic term for files used during backup operations containing management information such as volume and server details. These files are stored in each Managed Server and can be backed up by the resource backup command.

Backup management window

The window of ETERNUS SF Web Console for backup management.

Backup server operation

The type of operation that uses a dedicated backup server that copies the copies destination volume to a tape device. The server is only connected to the copy destination volumes.

Backup synchronous processing

The process of synchronizing the contents of a transaction volume and a backup volume in preparation for synchronous backup operations.

Binding

Server node HBA function. This function defines the correspondence between information of storage Fibre Channel ports (connection destinations) and special server node files. A storage area that allows precise access from a server node can be defined.

Cascade connection function

The function connecting Fibre Channel switches physically, using fibre cable. This function automatically enables the Fibre Channel switches to communicate with one another, thereby enabling access through the Fibre Channel switches by the name server function.

Cascade Copy

Group two or more concurrent copy processes by assuming the copy destination of one to be a copy origin of another.
Refer to the SA/SE handbook of ETERNUS Disk storage system for the requirement of the cascade copy.

CA (Channel adapter)

The adapter card in an ETERNUS Disk storage system, used as interface with server HBA/switch.

CCM (Copy Control Module)

A tool that enables backup using the Advanced Copy functions of ETERNUS Disk storage system.

When AdvancedCopy Manager is used, one advantage is that it can be used without installing the AdvancedCopy Manager's agent on the backup source server (the transaction server).

CCM Server

This is a server where the CCM (Copy Control Module) is installed.

CM (Controller module)

The module of an ETERNUS Disk storage system containing the RAID control processor and cache memory.

Concatenated affinity group

Function for aggregating several existing affinity groups and manage them as one affinity group.

Concurrent OPC

This is a function of ETERNUS Disk storage system and allows taking a snapshot from several logical volumes at once.
Taking a copy of a database configured over several logical volumes while maintaining the data consistency and such similar operations are made easy.

Copy function via LAN

Function for performing an Advanced Copy on ETERNUS Disk storage system from the server over the LAN.

Copy function via SAN

Function for performing an Advanced Copy on ETERNUS Disk storage system from the server over the SAN (SCSI) connection.

Copy Timestamp information display function

Function for displaying the timestamp of the latest Advanced Copy operation performed.

Database backup (SQL Server)

Backup of all the database files making up a database.

Database file (SQL Server)

File(s) containing database data. There are 3 types: primary data file, secondary data file and log file.

Database recovery (SQL Server)

Once the database restoration has been done, database is recovered to its most current status (or the status at a specified timestamp between the backup operation and the current status) using the database log.

Database restoration (SQL Server)

Database restoration from the database files that have been backed up.

Destination Access Permission

This is a function to change the access permissions for the copy destination volume of EC (Equivalent Copy) or REC (Remote Equivalent Copy).

Device map file

File that describes both the relationship between transaction volumes and backup volumes for backup management, and the relationship between copy source volumes and copy destination volumes for replication management

Disaster recovery site

An environment prepared at a different location to be used for data recovery after a disaster.

Eco-mode

The function to reduce electric power consumption of the storage system by stopping the disk motor when not in use through the disk drive operation schedule management.

EC (Equivalent Copy)

It is one of the Advanced Copy functions of ETERNUS Disk storage system. This function maintains the mirror state between the disks in a hardware device. When detach control is executed from software, a copy of such a disk is created.

Equivalency maintenance state

A state in which the EC (Equivalent Copy) function maintains the contents of a transaction volume and backup volume in precise equivalence.

ETERNUS

This is the brand name for following Fujitsu storage systems.

- ETERNUS Disk storage system

    ETERNUS DX series, ETERNUS2000, ETERNUS4000 and ETERNUS8000

- ETERNUS LT series Tape library

ETERNUSmgr

This is a software product for monitoring and displaying the status of the ETERNUS2000, ETERNUS4000, ETERNUS8000 and for setup and maintenance.

ETERNUS Disk storage system

This is a generic term of ETERNUS DX series, ETERNUS2000, ETERNUS4000 and ETERNUS8000.

ETERNUS Multipath Driver

The multipath driver for ETERNUS Disk storage system.

By setting a single logical path out of multiple physical access paths, the driver ensures the access to an ETERNUS Disk storage system is alive even when one of the access paths is failed.

This is a successor of the GRMPD driver.

ETERNUS SF log

The following logs are generated by ETERNUS SF V15.

- Event log

- Operation History

- Login/Logout History

- Threshold monitoring Alarms

ETERNUS SF role

This is a role defined in ETERNUS SF products.

The 2 roles are "Administrator" (for storage system administration) and "Monitor" (for storage system monitoring).

ETERNUS SF role group

This is group account to aggregate OS user accounts into roles.

The 2 group accounts are "ESFAdmin" (for storage system administration) and "ESFMon" (for storage system monitoring).

ETERNUS SF Web console

This is the web browser window where the administrator performs operations for Express, Storage Cruiser, AdvancedCopy Manager, or the terminal (client PC) where the browser is displayed. It is connected to the Management Server and allows management and monitoring of the storage system environment.

ETERNUS VSS Hardware Provider

This is software that provides ETERNUS Disk storage system service, based on the interface provided with the Microsoft Volume Shadow Copy Service (hereafter called "VSS"). For details, refer to the "ETERNUS VSS Hardware Provider User's Guide".

In AdvancedCopy Manager, during backup of the Exchange database, ETERNUS VSS Hardware Provider function may be used to perform backup.

ETERNUS Web GUI

This indicates the Web GUI of ETERNUS DX series and ETERNUSmgr.

Extended Copy

This is a copy which is started by SCSI-3 Extended Copy command.

Fabric

Topology using the fibre channel interface. A fibre channel switch is used and two or more communications between nodes can be performed simultaneously.

FC-AL (Fibre Channel Arbitrated Loop)

Topology using the fibre channel interface. A fibre channel that now allows the connection between two or more nodes using a hub. This topology is mostly used for 1 to 1 connectivity between devices. A port that is connected to the fibre channel is either an NL port or an L port.

FCoE (Fibre Channel over Ethernet)

The encapsulation protocol to transmit Fibre Channel protocol over Ethernet. It makes possible to use Ethernet as the base for SAN and LAN.

Fibre channel

One of the interfaces used to perform serial transfer of data. High-speed forwarding of data and the long distance transmission with the server are features of this transfer type.

Fibre channel hub

This is a hub that is only used for fibre channel networks. It is a device that connects two or more fibre channel node devices in a loop. It operates with the FC-AL topology.

Fibre channel switch

This is a switch used only on fibre channel networks. Its primary function is to facilitate communication between two or more fibre channel nodes at the same time. It exceeds a fibre channel hub in performance and reliability and operates with the fabric topology.

FL port

The port of the fabric topology (fibre channel switch) connected to the NL port.

Flex volume

Describes a volume with a flexible size that can be increased. Volume size can be increased freely by using an aggregate layer.

Flexible Tier

Function for optimizing performance and cost on a storage system by implementing Automated Storage Tiering, that is by automatically relocating data between tiers inside the storage system according to their access frequency.

Forced Login

The fact of forcibly interrupting a same user login session and log in again.

Forced Logout

The fact of forcibly interrupting a user login session.

Framework

Generic name referring to applications such as communication services and configuration management that form the foundation of the AdvancedCopy Manager.

FTRP (Flexible TieR Pool)

The physical disk pool created by Flexible Tier function.

FTV (Flexible Tier Volume)

The virtual volume created by Flexible Tier function.

F port

The port of the fabric topology (fibre channel switch) connected to the N port.

GBIC (GigaBit Interface Converter)

It is used as a module of a fibre Channel port, such as a fibre Channel switch or HBA.

GDS

This glossary is an abbreviation of "PRIMECLUSTER GDS".

GDS Snapshot

This glossary is an abbreviation of "PRIMECLUSTER GDS Snapshot".

Generation management backup

Backup operation that performs management with the specified number of preservation generations.

Generation overflow

This is the situation that arises when the number of backups specified as backup generations have already been used. If the next backup is performed, the backup volume having the oldest backup history is deleted from the generation management. This is called generation overflow. The actual number of backup generations is specified by the backup policy setting command.

GFS

This glossary is an abbreviation of "PRIMECLUSTER GFS".

Group

The function to group several devices so that they can be handled as one in Storage Cruiser.

Guest OS

An operating system running on virtual machines.

Hard disk driver

Hard disk driver software of a host server. Controls a disk array unit instead of the sd driver. This driver must be installed to perform multipath control.

HBA (Host bus adapter)

The adapter card used as an interface with the storage port/switch CA carried in a server.

HDDV

Refer to "Hard disk driver".

Host Affinity

Definition for associating an HBA in a server node set for a CA port on the storage side with an accessible area within storage. This function assigns a logical volume in a storage device presented to a host (HBA), and serves as a security function inside a storage device. This function is also called "Zone function".

Host Affinity group

Management information on ETERNUS Disk storage system that shows the association between the World Wide Name of the host and the Affinity Group.

Host OS

The operating system where the virtualization software that executes virtual machines runs.

Host response

Parameter managing the SCSI sense information processing for the connection between an ETERNUS Disk storage system and a server.

Hot spare disk

Alternate disk automatically brought online as a replacement when there is a disk drive failure.

iSCSI (Internet Small Computer System Interface)

Standard for SCSI protocol transport over a TCP/IP network,

iSCSI name

Name to identify uniquely a node in the iSCSI network. The corresponding string is called IQN (iSCSI Qualified Name).

iSNS (Internet Storage Name Service)

Name service and associated protocol for target node in the iSCSI network,

JNI

This is company name of a Fibre Channel HBA vendor.

Legacy DSF

One of the formats for device special files used by the HP-UX operating system. The "Legacy" indicates that this is the format for device special files that were used with versions of HP-UX prior to HP-UX 11iv3, as opposed to "persistent DSF", which is the format that was introduced with HP-UX 11iv3.
Format for legacy DSF: /dev/[r]dsk/cXtYdZ[sN]

Load share

One of the operation modes of a cluster system. It enables systems that are structured from multiple active nodes to be handled logically as one database.

Logical copy

When a request for backup or restoration is issued by the server, the copy is logically ended before the actual physical copy is finished. On the server side, after the logical copy is finished data level can be checked and updated on the copy destination.

Logical Device Expansion

Function for dynamically expanding the capacity for a RAID group by adding disks or changing the RAID level.

Logical node

Name of a logical server in a cluster system.

Logical volume

Logical volume defined inside a RAID group.

Log backup (SQL Server)

Backup the SQL Server transaction log.

LU (Logical Unit)

Logical unit defined under a channel adapter on a storage device.

LUN (Logical Unit Number)

Refer to "LU (Logical Unit)".

LUN Mapping

The mapping between the Logical Unit number (LUN) recognized by the host and Logical Volume number in the storage device.

Managed Server

Server managed by the Management Server.

By installing a module with the agent function for Storage Cruiser and/or AdvancedCopy Manager on this server, storage connected to the server can be controlled from the Management Server.

Management Server

The server where the manager function of Express, Storage Cruiser, AdvancedCopy Manager is installed. The whole storage system can be managed from that server.

Maximum number of operations

Maximum number of operations that can be handled concurrently by the manager server.

MPHD

Refer to "Multipath disk control".

MPIO (Multi Path I/O)

The multipath disk control mechanism on the Windows operating system. This is supported from Windows Server 2003. The actual control is performed by a driver known as the DSM (Device Specific Module) driver, which is provided by storage vendors.

MPLB

Refer to "Multi path disk control, load balance option".

msdsm

It is standard DSM (Device Specific Module) on the Windows operating system. This is supported from Windows Server 2008.

Multipath disk control

Driver software that performs multipath disk control of the host server.

Failover driver software that merges two physical access paths into one logical path to avoid stopping access to a disk array unit because of the failure of one physical access path.

Multi path disk control, load balance option

Driver software that performs multipath disk control of the host server. This driver has both load balance (path load distribution) and multipath (two to eight paths) functionality in addition to the multipath disk control failover function. It is superior in terms of reliability, operability, and performance and is the most suitable driver software for a SAN operation server.

Multiple logins

Multiple logins to Management Server by the same user using the ETERNUS SF Web Console.

Native multipath function

A control mechanism for multipath disks for the HP-UX operating system. The native multipath function was introduced with HP-UX 11iv3.

NL-Private port

The port of the FC-AL topology which has not made a fibre channel switch connection.

NL-Public port

The port of the FC-AL topology which is making a fibre channel switch connection.

NPIV (N_Port ID Virtualization)

N_Port ID virtualization. Allows having a logical volume direct access from several virtual machines by sharing one physical fibre channel adapter (HBA) between several virtual ports.

N port

The port used by Fabric topology (switch environment) or Point-to-Point in a fibre channel.

OPC (One Point Copy)

It is one of the Advanced Copy functions of ETERNUS Disk storage system. This function executes disk copy at high speeds at the hardware level. When software issues a copy request, a physical copy operation is performed by the hardware. However, the emulation function makes it look like the copy is completed at the software level.

Ordinary transaction volume

Volume to be backed up and not provided with a database space.

Persistent DSF

One of the formats for device special files used by the HP-UX operating system. This format was introduced with HP-UX 11iv3.
Format of persistent DSF: /dev/[r]disk/diskX[_pY]

Physical copy

Actual copy operation performed inside ETERNUS Disk storage system after the logical copy operation is finished.
The physical copy is performed as a background task, the server does not have to be aware of the physical copy task.

PID binding

One method of storage affinity (binding) of a server node HBA. The correspondence between PIDs of storage Fibre Channel ports, which are connection destinations, and special server node files can be defined.

Point-to-point

Topology using the fibre channel interface. Although it is the topology of 1 to 1 connection of an N port, the main part of the present 1 to 1 connection is the 1 to 1 connection of FC-AL.

Port zoning

Zoning of accessible areas for a Fibre Channel switch. An access path is set by specifying the port number of the Fibre Channel switch from the server node HBA connected to a port and storage CA.

Pre-processing or post-processing

Scripted processing that is executed immediately before or after Advanced Copy at the time of backup or replication. The pre-processing and post-processing scripts are called as part of the command processing of backup or replication management.

Prefetch

Function for reading disk array in advance. This function is effective for improving performance.

PRIMECLUSTER

This is software product for cluster configuration.

PRIMECLUSTER GDS

This is software product that improves data integrity by mirroring disk units.

PRIMECLUSTER GDS Snapshot

This is an optional product of PRIMECLUSTER GDS. With this product, you can create a snapshot of a GDS logical volume (ie, a replica at a certain time). AdvancedCopy Manager supports the backup and replication operations of logical volumes in linkage with GDS Snapshot.

PRIMECLUSTER GFS

Software product that creates a multivolume file system that offers robustness and improves data availability. This file system is completely compatible with UFS, which is the standard API of UNIX.

PV-LINK

A control mechanism for multipath disks that is provided by the Logical Volume Manager (LVM) for the HP-UX operating system. PV-LINK was introduced with HP-UX 10.0.

QuickOPC

This is a copy method generally used to copy only the data that is updated after a physical copy of all data by OPC (One Point Copy) is completed.
It is a suitable copy method for Disk to Disk backup.

RA (Remote Adapter)

The adapter card for interfacing with the Remote Advanced Copy function of ETERNUS Disk storage system.

RAID (Redundant Arrays of Inexpensive(Independent) Disks)

This is a technology that secures performance and fault-tolerance by distributing data to multiple hard disks.

RAID Group

Disk drive group that configures a RAID.

RAID Migration

This function allows transferring a volume from its current RAID group or TPP (Thin Provisioning Pool) to another RAID group or add it to TPP empty capacity.

RAID Level

The RAID level is classified according to how data is allocated to disks or how redundancy is configured, such as RAID0, RAID1, RAID1+0, RAID5, RAID6, RAID5+0.

RDM (Raw Device Mapping)

The mechanism for accessing directly a LUN from a VM guest.

REC (Remote Equivalent Copy)

It is one of the Advanced Copy functions of ETERNUS Disk storage system. The REC achieves EC (Equivalent Copy) between different ETERNUS Disk storage systems.

Redundancy

The fact to prepare supplementary hardware and mechanisms outside the normal configuration in order to respond to incidents and improve reliability.

Registry

AdvancedCopy Manager environment definition file.

Replication between servers

Replication between source volumes and destination volumes attached to different servers.

Replication management files

Generic term referring to the files where replication management saves the usage information.
There are two or more kinds. It is kept for every Managed Server with a data repository.

Replication on a server

Replication between source volumes and destination volumes attached to one server.

Repository

The repository contains all management and operational information required by AdvancedCopy Manager and its domain.
It is comprised of data contained in a management database hosted in a Management Server.

The information on the device to be managed, and information on backup and replication management, etc. are all stored in a repository.

This repository is created at the time of installation of ETERNUS SF Manager.

ROE (RAID Offload Engine)

This is responsible for encryption processing and parity generation processing for RAID5 and RAID6.

SAN (storage area network)

This is a server storage network. Broadly speaking, this also refers to the implementation of centralized storage, data sharing among different servers, and integrated storage management.

SAS address

Describes the WWN (World Wide Name) allocated to all SAS devices.

SDP (Snap Data Pool)

The pool of copy destination physical disks used by SnapOPC and SnapOPC+. Allows expansion of the physical capacity for SDV (Snap Data Volume).

SDPV (Snap Data Pool Volume)

The logical volume belonging to the SDP (Snap Data Pool).

SDV (Snap Data Volume)

The copy destination disks used by SnapOPC and SnapOPC+ .

SDX object

Virtual resource managed by PRIMECLUSTER GDS or SynfinityDISK. It is a general term for classes, groups, disks, volumes, and slices. An SDX object is sometimes called "object".

SED (Self Encrypting Drives)

Self Encrypting Drive. Using an encryption key and the disk own encryption chip, data encryption/decryption process is done aboard the disk itself.

Session

Unit of copying execution that is performed by the Advanced Copy function.

SMI-S (Storage Management Initiative Specification)

This is an interface standard for SAN management advocated by SNIA (Storage Networking Industry Association).

SMTP (Simple Mail Transfer Protocol)

Protocol for sending e-mail.

SMTP server

Server for sending e-mail.

SnapOPC

A copy method used when updating data. This method copies the pre-update status of the data parts that are to be updated, and matches the original non-updated parts to preserve the pre-update status (a copy-on-write copy method).
This method can be used for efficient data copying since it reduces the data size at the copy destination.
This copy method is suited to backing up file servers.

SnapOPC+

This method copies only the pre-update status of the data parts that are to be updated, and saves the data in snap generation units (a copy-on-write copy method).

This method can be used for efficient data copying since it reduces the data size at the copy destination and data can be saved in snap generation units. This copy method is suited to backing up file servers.

Snap shot type high-speed backup

Backup using the One Point Copy (OPC) function of ETERNUS Disk storage system.

SNMP (Simple Network Management Protocol)

The protocol for transmitting monitoring and management information regarding network connected devices over the IP network

SNMP Community name

The string used to allow access to information for a specific device when sending or receiving information over SNMP (Simple Network Management Protocol).

SNMP Trap

The event notification information sent by a device monitored through SNMP (Simple Network Management Protocol).

SSD (Solid State Drive)

The storage device built with Flash memory. It has advantages over a HDD (Hard Disk Drive) in access speed, power consumption, size, weight, reliability.

SSH (Secure Shell)

The protocol to perform the remote shell over the encrypting communication route.

Storage

A generic name of external storage devices such as disk array devices and tape units. These devices include ETERNUS Disk storage system, ETERNUS LT series Tape library.

Storage affinity

Refer to "LUN Mapping".

Storage Cruiser agent

The agent of Storage Cruiser that is software to manage storage resources

Storage Cruiser manager

The manager of Storage Cruiser that is software to manage storage resources

Storage Management Server

Refer to "Management Server".

Storage Server

Refer to "Managed Server".

Storage system

Describes a configuration with a business server and dedicated equipment for data storage.

Suspend specification

The act of specifying the -suspend option in the swstbackup command to back up using the Suspend/Resume function. The swstbackup command is a command of AdvancedCopy Manager.

Suspend/Resume

This function sets Suspend or Resume for the EC equivalency maintenance status. The synchronous backup operation can be made faster because the function can create a differential copy from the Suspend state.

Synchronous backup

This involves using the EC (Equivalent Copy) function of ETERNUS Disk storage system to perform backup.

SynfinityCLUSTER

This is software product for cluster configuration.

SynfinityDISK

This is software product that improves data integrity by mirroring disk units.

SynfinityFILE

Software product that creates a multivolume file system that offers robustness and improves data availability. This file system extends the UNIX file system (UFS) and improves availability and performance.

Tape library

A device that holds a large number of magnetic tapes and uses the controller in the device to automatically replace magnetic tapes in order to gain access to the tapes. It includes ETERNUS LT250/LT270.

Thin Provisioning

The function for allocating virtual storage in order to reduce the actual amount of physical storage needed..

Thin Provisioning Volume balancing

The function for rearranging physical resources between RAID groups that are configuring the TPP (Thin Provisioning Pool) in order to balance the capacity used by the TPV (Thin provisioning Volume).

TID, Target ID

ID set for each SCSI bus port.

In systems using SCSI or FC-AL, this ID is generally set for each device. In an environment of Solaris OS Fabric connection, its value can be defined using software from the OS. (WWPN binding)

TPP (Thin Provisioning Pool)

The physical disk pool created by Thin Provisioning function.

TPV (Thin Provisioning Volume)

The virtual volume created by Thin Provisioning function.

Traditional volume

Current volume type, as opposed to Flex volume.

Unit

Generic name of the entire device. For greater detail, parts in a unit are called elements.

UnknownFC port

Information created by Storage Cruiser according to information about WWPNs, excluding WWPNs of storage HBAs and server node CAs, where the WWPNs are used for connections to Fibre Channel switch ports. Devices in a SAN environment not managed by Storage Cruiser can be identified. The information is manually embedded for individual HBAs and CAs.

Virtual machine

A virtual computer that is created by virtualization software.

VMFS (Virtual Machine File System)

The cluster file system that multiple VM hosts can access at the same time.

VM guest

Refers to either a virtual machine or a guest OS.

VM host

Refers to either the virtualization software that executes virtual machines or the computer where the virtualization software runs.

VSS (Volume Shadow copy Service)

This is a function that provides a communications foundation for backup software, server applications and storage hardware. It is installed as standard with Windows Server 2003.

VSSHP

Refer to "ETERNUS VSS Hardware Provider".

WWNN (World Wide Node Name)

Common name set for a Fibre Channel port of a node. The node definition varies depending on the manufacturer. A device is defined in some cases, and an adapter is defined in others. WWNN is also called "node WWN".

WWNN binding

One method of storage affinity (binding) of a server node HBA. The correspondence between WWNNs of storage Fibre Channel ports (connection destinations) and special server node files can be defined.

WWNN zoning

Zoning of accessible areas for a Fibre Channel switch. An access path is set by specifying the WWNN of a server node HBA and WWNN of a storage CA. This setting disables access through the Fibre Channel switch to every Fibre Channel port whose WWNN is not defined.

WWPN (World Wide Port Name)

Unique name set for each Fibre Channel port (HBA, CA, Fibre Channel switch port, etc.). It is the IEEE MAC global address. A WWPN is used as an ID during Fibre Channel port login because no two Fibre Channel ports have the same WWPN. It is also called port WWN.

WWPN binding

One method of storage affinity (binding) of a server node HBA. The correspondence between WWPNs of storage Fibre Channel ports (connection destinations) and special server node files can be defined.

WWPN zoning

Zoning of accessible areas for a Fibre Channel switch. An access path is set by specifying the WWPN of a server node HBA and WWPN of a storage CA. This setting disables access through the Fibre Channel switch to every Fibre Channel port whose WWPN is not defined. In access path settings of this software product, access paths of Fibre Channel switches are controlled with WWPN zoning.

Zoning function

Fibre Channel ports connected to a Fibre Channel switch are grouped into zones. Access within individuals zones is restricted to implement security in Fibre Channel. There are several zoning types, including WWPN zoning, WWNN zoning, and port zoning.