HP StorageWorks
XP glossary

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Glossary

A

ACP   Array control processor. On some XP models, such as the XP12000, the ACP handles the passing of data between the cache and the physical drives. On other XP models, such as the XP10000, this function is handled by the disk adapter on the MIX board.

ADDR, Adr   Address.

AL   Arbitrated Loop.

allocation   The ratio of allocated storage capacity versus total capacity as a percentage. "Allocated storage" refers to those LDEVs that have paths assigned to them. The allocated storage capacity is the sum of the storage of these LDEVs. Total capacity refers to the sum of the capacity of all LDEVs on the disk array.

allocation policy   Storage system rules that govern how virtual disks are created. There are two rules:

Allocate completely—The space a virtual disk requires on the physical disks is reserved, even if the virtual disk is not currently using the space.
Allocate on demand—The space a virtual disk requires on the physical disks is not reserved until needed.

AL-PA   Arbitrated Loop Physical Address.

Array   Refers to the entire storage system (controllers, disks, and enclosures, etc.). Sometimes referred to as "subsystem."

array group   A group of 4 or 8 physical hard disk drives (HDDs) installed in an XP disk array and assigned a common RAID level. RAID1 array groups consist of 4 (2D+2D) or 8 HDDs (4D+4D). RAID5 array groups include a parity disk but also consist of 4 (3D+1P) or 8 HDDs (7D+1P). All RAID6 array groups are made up of 8 HDDs (6D+2P).

ASE   Application System Engineer.

async   asynchronous.

ATM   Asynchronous Transfer Mode.

B

Balancing   Balancing is the process of automatically spreading data equally across all disks to increase performance. When a fixed amount of data is either written or read from multiple disks instead of to or from just one disk, the throughput or speed of the process increases greatly.

BC   The HP StorageWorks Business Copy XP software program, which enables you to maintain up to nine internal copies of logical volumes on the disk array.

C

C/T   Consistency Time.

CA	HP StorageWorks Continuous Access XP. CA lets you create and maintain duplicate copies of local logical volumes on a remote disk array.
cache	Very high speed memory that is used to speed I/O transaction time. All reads and writes to the XP array family are sent to the cache. The data is buffered there until the transfer to/from physical disks (with slower data throughput) is complete.
	The benefit of cache memory is that it speeds I/O throughput to the application. The larger the cache size, the greater the amount of data buffering that can occur and the greater throughput to the applications.
	XP arrays support a range of cache memory. In the event of power loss, battery power holds up the contents of cache for up to 36 hours.
CC	Concurrent Copy.
CCHH	Cylinder, Cylinder, Head, Head.
CCI	Command Control Interface.
CCW	Channel Command Word.
CE	Customer Engineer.
CFW	Cache Fast Write.
channel adapter (CHA)	The channel adapter (CHA) provides the interface between the disk array and the external host system. Occasionally this term is used synonymously with the term channel host interface processor (CHIP).
channel host interface processor (CHIP)	Synonymous with the term channel adapter (CHA).
channel processor (CHP)	The processors located on the channel adapter (CHA). Synonymous with CHIP.
CL	Cluster.
CLPR	Cache Logical Partition.
CM	Cache Memory.
CNT	Computer Network Technologies.
command device	A volume on the disk array that accepts Continuous Access or Business Copy control operations which are then executed by the disk array.
control unit	To organize the storage space attached to the DKC, you can group similarly configured logical devices (LDEVs) with unique control unit images (CUs). CUs are numbered sequentially. The disk array supports a certain number of CUs, depending on the disk array model. Each CU can manage multiple LDEVs. Therefore, to uniquely identify a particular LDEV requires both the CU number and the LDEV number.
CSW	Cache Switch Path.
CTG	Consistency Group.
C-Track	The HP StorageWorks Continuous Track XP software program, which detects internal hardware component problems on a disk array and automatically reports them to the HP STC.

CU	Control Unit.
CUI	CU image.
CVS	Custom Volume Size. CVS devices (OPEN-x CVS) are custom volumes configured using array management software to be smaller than normal fixed-size OPEN system volumes. Synonymous with volume size customization (VSC).
CYL	Cylinder.

D

DASD	Direct-Access Storage Device.
DB2	DATABASE 2.
DFP	Data Facility Product.
DFSMS	Data Facility Storage Management Subsystem.
DFW	DASD fast write.
disk adapter (DKA)	see "ACP" on page 3.
disk controller (DKC)	The array enclosure that contains the channel adapters and service processor (SVP).
disk group	The physical disk locations associated with a parity group.
disk recovery and restore unit (DRR)	The unit responsible for data recovery and restoration in the event of a cache failure.
disk type	The manufacturing label burned into the physical disk controller firmware. In most cases, the disk type is identical to the disk model number.
disk unit (DKU)	The array enclosure that contains the array's physical disks.
DKCMAIN	Disk controller main.
DR/BC	Disaster Recovery/Business Continuation.
DS	DEVSERV.
DSF	Device Support Facilities.
DWL	Duplex Write Line.

E

ECC	Error Check and Correct.
ELB	Extended Long Busy.
eLUN	External LUN.
emulation modes	The logical devices (LDEVs) associated with each RAID group are assigned an emulation mode that makes them operate like OPEN system disk drives. The emulation mode determines the size of an LDEV.

OPEN-3:	2.46 GB
OPEN-8:	7.38 GB
OPEN-9:	7.42 GB
OPEN-E:	13.56 GB
OPEN-K:	Not available on this array
OPEN-L:	36 GB
OPEN-M	Not available on this array
OPEN-V:	User-defined custom size

EPO Emergency Power-Off.

ERC Error Reporting Communications.

ERP Error Recovery Procedure.

ESA Enterprise Systems Architecture.

ESCD ESCON® Director.

ESCON Enterprise system connection (the IBM trademark for optical channels).

expanded LUN A LUN is normally associated with only a single LDEV. The LUSE feature allows a LUN to be associated with 1 to 36 LDEVs. Essentially, LUSE makes it possible for applications to access a single large pool of storage. The LUSE feature is available when the HP StorageWorks LUN Configuration Manager product is installed.

ExSA Extended Serial Adapter.

F

F/M Format/Message.

failover A high-availability operation that redirects the functions of a failed primary system to an equivalent secondary system. See "HA" on page 7.

FBA Fixed-Block Architecture.

FC Fibre Channel. A set of ANSI standards that supports multiple protocols and multiple topologies for high-speed, serial data transmission to and from storage devices.

FC-AL Fibre Channel Arbitrated Loop.

FCP Fibre Channel Protocol.

fence level A level for selecting rejection of a write I/O request from the host according to the condition of mirroring consistency.

FICON IBM mainframe Fiber Optic Connection.

FTP File Transfer Protocol.

FW Firmware.

G

GB Gigabytes.

GDPS	Geographically Dispersed Parallel Simplex.
GLM	Gigabyte Link Module.
GUI	Graphical User Interface.

H

HA	High Availability. The relative ability of a system to operate continuously regardless of any type of failure.
HBA	Host Bus Adapter. An interface card that connects a server to a fabric and manages the transfer of data between them. *Also called FCA.*
HCD	Hardware Configuration Definition.
HD	head.
HDD	Hard Disk Drive.
host mode	Each port can be configured for a particular host type. These modes are represented as two-digit hexadecimal numbers. For example, host mode 08 represents an HP-UX host.
hot standby	Using two or more servers as a standby in case of a primary server failure.
HWM	High-Water Mark.

I

I/O	Input/output (applies to an operation or device).
ID	Identification.
ICS	Installation Control Specification.
IML	Initial Microcode Load.
IMPL	Initial Microprogram Load.
IMS	Information Management System.
IOCDS	I/O Configuration Dataset.
IOCP	Input/Output Configuration Program.
IODF	Input/Output Definition File.
IP	Internet Protocol.
IPL	Initial Program Load.
IPS	Installation Performance Specification.
ISPF/PDF	Interactive System Productivity Facility/package definition file.

J

JCL	Job Control Language.
JRE™	Java Runtime Environment.
JVM™	Java Virtual Machine.

K

kB	Kilobytes.
km	Kilometers.

L

LAN	Local Area Network.
LCP	Local Control Port.
LCU	Logical Control Unit.
LD, LDEV	Logical Device. An LDEV is created when a RAID group is carved into pieces according to the selected host emulation mode (that is, OPEN-3, OPEN-8, OPEN-9). The number of resulting LDEVs depends on the selected emulation mode. The term LDEV is often used synonymously with the term volume.
LED	Light Emitting Diode.
local disk	A disk in the host.
LU	Logical Unit.
LUN	Logical Unit or Logical Unit Number. A simulated disk with a unique SCSI identifier. A logical unit is created and presented as a numbered physical device to one or more hosts.
LUSE	Logical Unit Size Expansion. See also "expanded LUN" on page 6.
LVI	Logical Volume Image (e.g., 3390-3R).

M

m	Meters.
max	Maximum.
MB	Megabytes.
Mb/s	Megabits Per Second.
MCU	Main Control Unit.
MIH	Missing Interrupt Handler.

min	Minimum, Minutes.
mirroring consistency	The consistency (usability) of data in a volume (for example, S-VOL).
MIX	A circuit board in the disk control unit that includes disk adapters and channel adapters for interfacing disk drives and the host to cache memory.
mm	Millimeters.
MPSD	Multiple Path Storage Director.
MR	Magnetoresistive.
MRCF	Multi-RAID Coupling Feature.
ms, msec	Milliseconds.
mutual hot standby system	Two servers that are poised to cover for each other if necessary.
M-VOL	Main Volume.
MVS	Multiple Virtual Storage.

N

NAS	Network Attached Storage.
node	Logically speaking, an environment where instances can be executed. Physically, a processor, which is an element of a cluster system.
NVS	Nonvolatile Storage.

O

OFC	Open Fibre Control.
offline micro exchange	A way to upgrade firmware (microcode) while all the host IO has been stopped. It is faster, but involves restarting the array. The other way to upgrade firmware is "online microcode upgrade."
OLM	Optical Link Module.
OPEN-*x*	A general term describing any one of the supported OPEN emulation modes (for example, OPEN-L).
OS	Operating System.

P

P/DAS	PPRC Dynamic Address Switching.
PA	Physical Address.
parity group	A parity group is a disk configuration in which multiple disks work together to provide redundancy. Synonymous with "array group."

partition	Dividing a specific physical disk into two or more areas as if there are two or more physical disks.
path	Paths are created by associating a port, a target, and a LUN ID with one or more LDEVs.
PAV	Parallel Access Volume.
PC	Personal Computer System.
PCI	Power control interface or peripheral component interconnect.
PDEV	Physical Device.
PiT	Point-in-Time.
port	A physical connection that allows data to pass between a host and the disk array. The number of ports on an XP disk array depends on the number of supported I/O slots and the number of ports available per I/O adapter. The XP family of disk arrays supports Fibre Channel (FC) ports as well as other port types. Ports are named by port group and port letter, such as CL1-A. CL1 is the group, and A is the port letter.
P-P	Point-to-point.
PPRC	Peer-to-Peer Remote Copy.
P-VOL	Primary Volume.

R

R/W, r/w	Read/Write.
RAID	Redundant Array of Independent Disks.
RAID group	See "array group" on page 3.
RAID level	A RAID Level is one of the ways that disk drives are grouped together to improve performance, data availability/reliability or both. RAID levels are defined from RAID0 to RAID6. HP StorageWorks Disk Arrays in the XP product family support RAID1, RAID5 and RAID6. Not all of these RAID levels are supported by all XP family members. Consult the owner's guide or your HP representative for the details of which RAID levels are supported by your specific XP disk array.
RAID Manager	System administrators can enter RAID Manager (CCI) commands from open-system hosts to perform TrueCopy, ShadowImage, and Data Integrity Check operations on logical devices.
RAID-1/5	specific RAID architectures.
RAM	Random Access Memory.
RC	Reference Code.
RCP	Remote Control Port.
RCU	Remote Control Unit.
RDC	Remote Dual Copy (same as remote copy).
RDEV	Raw Device.

remote console PC	The PC running HP StorageWorks Remote Control XP.
Remote Control (RC)	HP StorageWorks Remote Control XP. A software product used for managing XP arrays.
Remote Web Console (RWC)1	HP StorageWorks XP Remote Web Console. A browser-based program installed on the SVP that allows you to configure and manage the disk array.
RIO	Remote I/O.
RM	HP StorageWorks RAID Manager XP, a command line interface for managing XP arrays.
RMCMAIN	Remote Console Main software.
RMI™	Remote Method Invocation.
rnd	Random.
R-SIM	Remote Service Information Message.
R-VOL	Remote Volume.

S

S#, S/N	Serial Number (also abbreviated as S/N).
S/390®	System/390®.
SAID	system adapter ID.
SCI	State-Change-Interrupt.
SCP	State-Change-Pending.
script file	A file containing a shell script.
SCSI	Small Computer System Interface.
SDM	System Data Mover.
sec	Seconds.
seq	Sequential.
shell script	A command sequence executed by a UNIX shell.
sidefile	An area of cache used to store the data sequence number, record location, record length, and queued control information.
SIM	Service Information Message.
SIz	ShadowImage for z/OS®.
SLPR	Storage Logical Partition.
SM	Shared Memory.
SMI-S	Storage Management Initiative - Specification.
SMPL	Simplex.

SMS	System Managed Storage.
SNMP	Simple Network Management Protocol.
SSB	Sense Byte.
SSCH	Start Subchannel.
SSID	Storage Subsystem Identification.
SSL	Secure Socket Layer.
STC	HP Storage Technology Center.
Subsystem	see "Array" on page 3.
S-VOL	Source Volume or Secondary Volume.
SVP	Service Processor. The PC built into the disk controller. The SVP provides a direct interface into the disk array. *SVP use is reserved for HP support representatives only.*
sync	Synchronous.

T

TB	Terabyte.
TC390	TrueCopy for z/OS®.
TCA	TrueCopy Asynchronous.
TCP/IP	Transmission control protocol/Internet protocol.
TCz	TrueCopy for z/OS®.
TCzA	TCz Asynchronous.
TID	Target ID.
TOD	Time-Of-Day.
TSO	Time Sharing Option.
T-VOL	Target Volume.

U

UA	Unit Address.
UCB	Unit Control Block.

V

VDEV	Virtual Device.
VM	Virtual Machine.

VOL, vol	Volume.
VOLID	Volume ID.
Volatile PS On	Volatile PS on refers to instances where a power failure has exceeded the battery backup time of 48 hours.
VOLSER	Volume Serial Number.
volume	Synonymous with LDEV.
VSC	Volume Size Customization. Synonymous with CVS.
VSE	Virtual Storage Extended.
VTOC	Volume Table of Contents.

W

WLM	Workload Manager.
WWN	World Wide Name. A unique identifier assigned to a Fibre Channel device.

X

XRC	Extended Remote Copy.
XRC Replication	Compatible Replication for IBM® XRC.