



Intercom
Computer
Systems



I-7594/AML

Magneto Optical Disk Library for IBM S/390

Highlights

The I-7594/AML Optical Disk Library supports 2 to 256 optical disk drives and up to 46,656 magneto optical disks. Storage capacity ranges from 4 to 424 TB. The optical library system emulates an IBM 3490 Magnetic Tape System and connects to IBM S/390 and compatible systems via ESCON and/or Block Multiplex Channel. IBM 3995 compatibility is optional. The I-7594/AML is ideally suited to replace microfilm and for long-term archiving, document management and workflow processing.

Reliable Near Online Storage

The magneto optical disk technology is the most reliable storage technology available today. Head crashes are impossible and a stable cartridge protects the disk against mechanical damage. It can provide access to near online data within seconds rather than minutes, compared to magnetic tape libraries. Supported are WORM (Write Once Read Multiple) as well as rewritability.

WORM technology, combined with a data life time of more than 30 years, meets the legal requirements for long term document archiving. Once data is recorded it can never be manipulated. This characteristic ideally suits document management, archiving and micro film replacement in COLD (Computer Output on Laser Disk) applications.

The rewritable version can substitute magnetic tape, providing significantly faster access to near online data and is the ideal media for magnetic disk cached virtual tape systems. Especially if fast access to a high number of relatively small files is required.

Scalable Library

A 5 ¼ inch magneto optical disk supports 4.05 GB per side, maintaining a total storage capacity of 9.1 GB per disk. The library is

scalable from 486 to 46,656 optical disks, providing a capacity of 4 to 424TB. Up to 256 Drives maintain a total bandwidth of 512 MB/s. Barcode support is standard.

Connectivity

The I-7594/AML can be equipped with up to eight ESCON and/or Block Multiplex Channel interfaces, connecting to IBM S/390, FSC BS2000, UNISYS, Bull and other systems. Connectivity to Open Systems (UNIX, Windows etc.) is provided via Fibre Channel and SCSI.

IBM 3490 Tape Emulation

The I-7594/AML control unit emulates an IBM 3490 tape system, providing software compatibility to OS/390, VM/VSE and to all other operating systems, supporting 18 or 36 track tape cartridges. Also supported are all application programs for 3490 Tape systems.

Each side of an optical disk represents one tape volume, identified by a Volume Label. To enable fast access to particular data files an index is created during write. Forward Space File (FSF) commands locates the next data file directly, eliminating time consuming sequential file processing, as required in tape systems. Locate commands provide direct access to particular records. WORM

Multi Media Support

IBM 3590
IBM 3490/80
LTO
StorageTek 9840
DLT, ExaByte, DAT
Magneto Optical Disk
DVD
CD

Capacity

Depending on the Library up to 424 TB

Compatibility

IBM 3490 Magnetic Tape
FSC 3590 Magnetic Tape
IBM 3995 (Option)

Operating Systems

OS/390, MVS
VM/VSE
OS/400
AIX
BS2000

Interfaces

ESCON
FSC Channel Type S
Block Multiplex Channel
FSC Channel Type 2

media emulates File Protection to eliminate the manipulation of written data.

The I-7594/AML Optical Disk System is supported by all common Tape Management Systems, including ZARA, RMM and CA and all applications, supporting IBM 3490 tape systems (OAM, Beta 97, EOS, BMC, etc.).

An IBM 3995 compatible version supporting OAM and "On Demand" is available as optional feature.

Virtual Tape Emulation

The I-7594/AML can be upgraded to a virtual tape system by adding up to 10 TB magnetic disk cache in front of the optical disk system. Tape volumes are cached at disk speed on magnetic disk as virtual volumes and eventually migrated to tape as logical volumes. This method can improve write throughput and reduce access time during read operations significantly. Supported is Read/Write as well as WORM.

Fault Tolerance with TWIN

Two control units can be clustered together to provide fault tolerance. If one of the twins fails, the other one will continue operation. In addition to fault tolerance, a TWIN doubles the sustained bandwidth and the number of channel interfaces. Also available are RAID 1 protection for the controllers internal disk system and redundant power supply.

Meeting Users Requirements

With all of these features, such as scalable capacity and performance, fast access to data, software compatibility, WORM, Read/Write capability and a data life time of more than 30 years, the I-7594/AML is ideally suited for workflow processing, document management, archiving and microfilm replacement. To meet the users future requirements, Intercom is committed to implementing new Optical Disk Technologies as soon as they become available.



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Specifications

Technology

5 1/4 Magneto Optic
LIMDOW Direct Overwrite
CCW WORM Technology

Optical Disk Media

Format 5 1/4 "
Recording Sides 2
Media Capacity 5,2 or 9,1 GB

Disk Drives

Number of R/W Heads 1
R/W Data Rate 2,48 to 5,07 MB/s

Automated Disk Library

AML/E
486 to 10,386 MO's
up to 50 drives
Total Capacity 4,4 to 94,5 TB

AML/2
5,184 to 46,656 MO's
up to 256 Drives
Total Capacity 47 to 424 TB

Hardware Compatibility

IBM 3490 Model A10
IBM 3995 optional
ESCON or BMC Interfaces

Software Compatibility

OS/390, MVS
VM, VSE
BS/2000

Applications

BETA97, OAM, EOS, BMC, On Demand and others.
All common Mainframe Tape-Management-Systems are supported

Controller Operation Environment

110/208V, 10A, 60 Hz
200/240V, 7A, 50 Hz
10 to 80 % relative Humidity
10 to 42 Grad C, 50 to 108 Grad F

Roboter Operation Environment

dependent on the Configuration

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