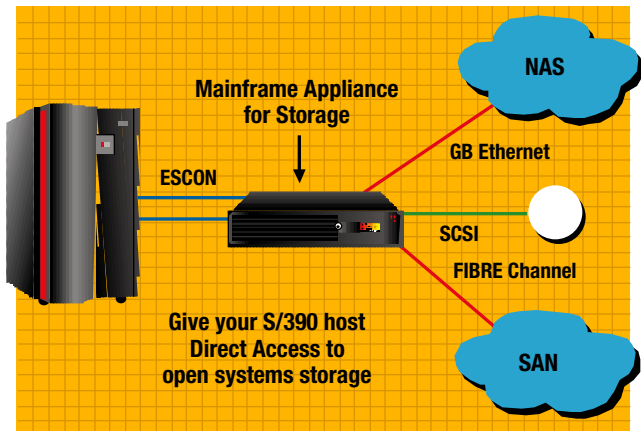# Mainframe Appliance *for* Storage

Mainframe to Open-Systems Storage – Virtual Tape

The Mainframe Appliance for Storage (MAS) is the latest innovation from Bus-Tech to help you manage your constantly growing storage requirements.

The Mainframe Appliance for Storage is a System/390 controller supporting ESCON attachment to the mainframe and Gigabit Ethernet, Fibre Channel or Ultra SCSI connection to open-system storage devices. The MAS emulates up to 16 IBM 3480 virtual tape drives per ESCON channel and utilizes a "tape-on-disk" technique to read and write mainframe tape data onto open-system storage devices. Using tape virtualization provides the ability to implement total tape automation.

Mainframe Appliance for Storage
ESCON
NAS
GB Ethernet
SCSI
FIBRE Channel
SAN
Give your S/390 host Direct Access to open systems storage

IBM ESCON Enabled

The *Mainframe Appliance for Storage* implements IBM's ESCON Enabler Technology, providing compatibility to IBM's ESCON channel.

MAINFRAME VIRTUAL TAPE

The MAS, with dual ESCON adapters, emulates up to 32 standard 3480 tape drives. This allows data sets to be written to an open-system storage device while maintaining all the information necessary for the mainframe to read the "tape" as if it were a standard 3480 volume.

IMMEDIATE AVAILABILITY OF DATA

Contention for tape drives and resource "pend" times are a thing of the past. With data stored on local disk arrays, tape mount requests are satisfied instantly, without operator intervention.

This feature is especially important in data recovery scenarios. Imagine the mechanics of restoring critical data consisting of thousands of files spread across hundreds of tape volumes. With the MAS, because all volumes are maintained in a real time environment, your virtual tape data is immediately available for processing.

DATA EXCHANGE WITH OPEN SYSTEMS PLATFORMS

The MAS supports writing or reading a "flat" file format compatible with Windows, Unix, or Linux systems. Combined with support for networked disks, flat file data exchange allows the MAS to deliver mainframe data anywhere in the corporate network without the use of expensive specialized mainframe application software.

THE PLATFORM

The Mainframe Appliance for Storage is designed with many features to insure reliability and to minimize Mean Time Between Repair (MTBR).

The platform comes standard with dual hot-swappable power supplies, hot-swappable fans and extensive platform management capabilities.

In order to minimize MTBR, each system is shipped with mirrored boot disks. In the event of failure, the surviving disk will automatically take over and you will be notified that a disk failure has occurred. With your controller still operational, disk replacement can be planned according to your scheduling needs.

The MAS offers a cost-effective solution to assist data centers in managing the enormous volumes of data that is being generated by today's ebusiness applications.

Future releases of the MAS will support iSCSI and FiCON.

OPEN-SYSTEM STORAGE

The MAS works with any open-system storage device, from SANs to NASs as well as standard SCSI. In most cases you can use your existing open-system storage infrastructure. To offer your tape data the protection it requires, we recommend utilizing RAID 5 as an appropriate protection against data loss.

SPECIFICATIONS

Mainframe Appliance for Storage

Physical Attributes

Rack Mount	Mounts into an EIA Standard 310-D rack
Dimensions	3.4"H (2U) x 18.9"W x 24.1" L
Power Supply	Dual hot-swappable 350W 1 + 1 PFC
Voltage	6.7 Amp at 115v
	3.3 Amp at 220v

Certifications

Emissions	FCC Class A, ICES-003 Class A, CISPR 22 Class A, EN55022 Class A, EN55024 (Immunity), CE-EMC Directive, AS/NZS 3548 Class A, RRL Class A and BSMI Class A
Safety	UL 1950 - CSA 950, EN 60 950, IEC 60 950, CE, EMKO-TSE and GOST R 50377-92

Operating Environment

Temperature	
Operating	5°C to 50°C
Storage	-50°C to + 150°C
Humidity (Non-operating)	95% non-condensing at 30°C

System/390 Environments Supported

IBM	OS/390 version 2.4 and above
	VSE

Ports

Channel (max 2)	IBM Enabled ESCON
Fibre Channel (max 2)	Host Bus Adapter (fibre or copper)
Ultra 160 SCSI	High-density 68 Pin (female)
Ethernet	10/100/1000 Mbit/sec. Cat 5

The Solution is simple.™

BUS-TECH INC.