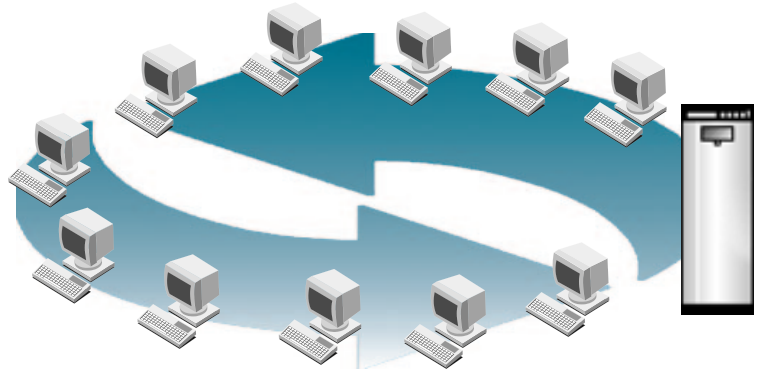


Where are you going to get more disk space for your PCs and UNIX workstations?

Use our 1024 GB Server...

As a Terabyte of "Virtual Disk!"



With the constant barrage of new or upgraded operating systems and application software packages, local and server based disk storage needs are growing at a fairly brisk pace. Many companies are applying "work group" and "work flow" techniques with "image enabled" applications. And, when you add in the interest in "multimedia", storage requirements are going through the roof.

Unique Software

We are proud to include **DiskExtender** from Optical Technology Group, with the MSS-128 to provide you with solutions to these problems.

When the MSS-128 is used with **DiskExtender**, it appears to network clients as an ordinary disk-based server, eg. multiple drives, even though user data is stored on low cost magnetic tape. It is, in reality, a "virtual network disk" of enormous capacity.

Would this be useful to you?

If you or your staff are challenged with managing file servers or network based storage servers the following should be of interest to you:

Would you like...

To provide your PC users additional network storage by simply assigning drive letter(s) D:, E:, F: ...?

To provide your UNIX users additional network storage by simply mounting more drives?

Not have to "take down the server" each and every time you add a hard drive to one of your servers?

Centralized file administration and storage management for a terabyte of network storage?

Easy off-site vault storage?

Fully integrated, dedicated server...

true plug & play. This unit is ready on delivery to plug into the LAN(s) of your choice and to a 120 volt wall outlet, it includes:

- an embedded Alpha or Pentium(s) based server to quickly and easily manage your LAN storage
- Up to 6 fast SCSI-2 hard drives, with up to 20 GB of disk storage dedicated to caching user files
- Up to 7 DDS II DAT drives provide significant and efficient throughput for the 128 robotically controlled tapes
- Pre-installed and tested software to fit your network needs

The **Opera MSS-128** gives you...

Accessibility - 1 to 4 network interface cards using any of the popular network protocols

Capacity - one TERABYTE of near line storage in a device slightly larger than a tower PC

Quality - industrial strength robotics for maximum reliability and minimal downtime

Security - your valuable data is protected by a combination of hardware and software mechanisms.

Opera Systems has an effective, efficient, and inexpensive solution to this often under-budgeted problem... as low as 5 cents a megabyte, up to one TERABYTE of near line storage, in a single centralized dedicated network storage (file) server.



Opera Systems Incorporated

Making your mass storage problems easier to solve!

General Specifications

The MSS-128 is a dedicated application server that stores and protects the massive volumes of information now distributed across PC and workstation networks. The MSS-128 offers the capacity, performance, industrial-grade quality, and security necessary to insure data integrity.

Robot Autochanger

The MSS-128 autochanger stores up to 128 Digital Audio Tape (DAT) cassettes (4 mm) with a capacity of up to 1 Terabyte (1024 GB) when equipped with DDS II drives and DDSII cassettes.

Supports Up to 7 DAT drives (SCSI-2) with a sustained hardware transfer rate of 366KB/sec to 1000 KB/sec (1.3 GB/hr to 2.6 GB/hr) per DAT drive. This provides a total transfer rate greater than 10 GB/hr.

Supports bar code labeling (Code 39) of DAT Cassettes. A bar code reader is standard in every machine and is programmed to take inventory of each bin of the 128 in the magazines, the 4 mail slot positions and the 4 magazines on command.

Applications Computer

The MSS-128 contains an internal, high-end, applications computer to run the operating system (Windows NT or UNIX), and the appropriate application software.

The MSS-128 houses its DAT cassettes and application computer within a single enclosure that is secured with both electronic and physical (key) locks. It provides an ideal platform for "near-line" storage servers, backup servers, network image servers, and other data-intensive applications.

The MSS-128 is designed like any other network server in that it is integrated, easy to use, reliable, secure, and compatible. With its unique combination of very high storage capacity, very low

cost per megabyte, and a secure internal applications processor, the MSS-128 offers an unmatched combination of functionality and power for today's storage-intensive network applications. The MSS-128 provides an excellent solution for:

- ❑ Backing up and Archiving large computer systems or networks
- ❑ Automating the management of DAT cassette libraries
- ❑ Storing very large data sets online
- ❑ Storing and retrieving images.

Network Connections

The MSS-128 is easily connected to your LAN via Ethernet, Token Ring and F/CDDI. The system supports up to four network interface cards and all of the popular protocols, eg., TC/PIP, SPX/IPX, NetBEUI, NetBIOS, etc.

Standard Components

The MSS-128 is an assembly of off the shelf standard electrical and electronic components housed in a sheet metal and machined aluminum chassis. The unit has two separate functional groups, robotics that handle the placement of the cassettes, and the data read / write /file function consisting of a motherboard, disk drives and DAT drives. The components selected for the assembly are all standard form factors and available from multiple manufacturers. There is no proprietary computer hardware.

Removable 32-bin Magazines

The archiving and/or vault storage of data and media is accomplished by the easy removal of magazines which hold thirty-two tape cassettes each. A clear plastic cover allows the bar code labels of the individual cassettes to be read without removal and the magazine is also identified with a bar code label.

Opera Systems MSS-128 Mass Storage Server

**1 TB (1,024 GByte)
mounted storage capacity
in a robotically controlled
tape library
[3 TB available 1997]**

Up to 7 DDS II DAT Drives

**Up to 6 SCSI Hard Disk
Drives**

**Pentium 120 MHz
or DEC Alpha 233MHz**

Up to 128 MByte RAM

**Secure lockable and
password protected
enclosure**

**Tape cassette
capacity: 128**

**Disk based cache:
2 to 22 GB**

**Removable 32 bin bar
coded storage magazines**

**Pre-installed and tested
software to fit your needs**



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