NO MATTER WHAT *size* BUSINESS YOU HAVE. . . LOOK TO *dsi* FOR WORLD CLASS STORAGE SOLUTIONS.

DLT

Alpine

DLT Drives, Autoloaders and Automated Libraries

Digital Linear Tape is the top selling tape technology in the world, and for good reason. It excels in performance, reliability and capacity, and does so at a fraction of the cost of competing technologies.

With cartridge capacities far outstripping those of other half-inch tape technologies, and transfer speeds up to 10 MB per second, DLT is the technology of choice for mid-range and large shops alike.

If you like the capacity of 4mm (DAT) and 8mm tape, but need the robustness of half-inch tape, DLT may be the right technology for you.

ALPINE STANDALONE DLT DRIVES

DYNAMIC SOLUTIONS INTERNATIONAL's standalone DLT drive provides high-speed, high-duty cycle backup of up to 70 GB per cartridge. Two DLT4000 drives may reside on a single CA312 SCSI channel adapter. Two DLT7000 drives may reside on a CA322 channel adapter. With the Alpine DLT Drive, your investment is always protected. Alpine drives will work with any of DSI's automated tape libraries, allowing you to add automation to your site without acquiring new tape drives.

ALPINE DLT AUTOLOADERS

Alpine Autoloaders are a cost-effective means of backing up from 320 GB to 1.05 TB of information. Available in 8- or 14-cartridge configurations, with a single DLT4000 or DLT7000 tape drive, Alpine Autoloaders are designed with cartridge magazines for easy loading and unloading.

DLT AUTOMATION

DLT allows many shops to automate backup cost-effectively. In the past, automation could only be accomplished very expensively, because the drive technology being automated — 18- or 36-track cartridge tape — was costly to manufacture and offered very low capacity. The low capacity necessitated putting hundreds, if not thousands of tapes on line. The corresponding tape library was thus very large with a price tag that matched.

With the advent of high-capacity cartridges, the number of cartridges needed for a database backup seldom exceeds the number of databases. Furthermore, the inherently less expensive drive technologies often result in a fully automated system which is equivalent in price to an autoloader system with an older tape technology, such as 36-track. Audit and Library Maintenance backups are greatly simplified, as well.

DLT may be the right technology for you.

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TAPEMANAGER SOFTWARE

TapeManager tracks your tapes and their usage. An Alpine Tape Library removes operator intervention from the process by tracking your tapes with a barcode reader.

All of DSI's tape libraries include a barcode reader and TapeManager to track and inventory all of your tapes. Backups occur at user-defined times, using your parameters.

Restoring lost data is greatly simplified with the Alpine system. Simply request a restore of a lost database, and your library automatically selects the tape cartridges it needs to perform the task. In the event that a needed tape is no longer in the library, TapeManager can request the correct tape by number.

AUDIT TRAILS

In the past, the size of audit trails was necessarily small, because tape capacity was small. With the advent of tape technologies such as DLT, you may expand the size of your audit trails to take advantage of very large tape capacity. Or, if you prefer, you can append multiple audits to a single tape using COPYAUDIT with MCP 4.3.2 or later. This feature makes small-capacity cartridges obsolete by allowing you to fill an entire high-capacity tape with audit trails, rather than using multiple small-capacity cartridges as in the past.

LIBRARY MAINTENANCE FILES

TapeManager software allows you great flexibility in managing Library Maintenance files. With MCP 4.4.1, these may be appended to a single tape cartridge throughout the day. Because our units are fully automated, your WFL command will automatically select the designated tape for Library Maintenance storage whenever these files need to be backed up, relieving your operators of this duty.

DLT AUTOMATED LIBRARIES

ALPINE P1000 DLT LIBRARY

The Alpine tape library family encompasses units of all sizes, including the P1000, which you can configure with as few as two drives and 16 cartridges. Add one or two more drives and 14 more cartridge slots, and your P1000 is capable of storing up to 1.05 TB, all in a standard enclosure suitable for rack mounting.

ALPINE 7100 DLT LIBRARY

The Alpine 7100 is the solution for medium to large shops that need scalability and the power to back up multiple terabytes of information. The Alpine 7100 isn't limited to backing up MCP—using the PL50 front end, the unit can back up as many as three operating systems, such as MCP, UNIX, and Windows NT.

ALPINE 2640 DLT LIBRARY

For massive storage capabilities as well as scalability, the Alpine 2640 is the leader in A Series tape libraries. Currently in use at Toys 'Я' Us and First Health Strategies, the 2640 was Network Magazine's 1998 Product of the Year. Up to 9 drives or 264 cartridges enable you to store as many as 9.24 TB of data. Like the 7100, the 2640 is able to back up multiple environments simultaneously, providing the ultimate solution for data centralization. The 2640 also features pass-through—the ability to connect up to five libraries together to form a single logical library with up to 92 TB of storage.

ALPINE P3000 DLT LIBRARY

The newest addition to the Alpine family of DLT libraries supports up to 16 DLT drives and 326 cartridges in one cabinet. Like the 2640, the P3000 provides the ability to concatenate five libraries to create one large library for the utmost in data protection. A single Alpine P3000 library can store as much as 23 TB of data.

The ultimate solution for data centralization.

ALPINE PL50 LIBRARY HUB

Is your network too slow to back up multiple backup servers concurrently? Are dedicated libraries for each backup server too expensive? The PL50 Library Hub is an external library controller that offers a cost-effective means for connecting three backup servers to a single Alpine DLT library.

Three of the PL50's four SCSI ports are interfaces to backup servers. The fourth port connects to the Alpine Library Controller. In this manner, you can back up not only MCP, but two other environments as well, such as UNIX and Windows NT.

TapeManager software allows you great flexibility in managing Library Maintenance files.

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Alpine DLT Library Specifications

FEATURE	Alpine P1000	Alpine 7100	Alpine 2640	Alpine P3000	Alpine Autoloader
Library capacity	Up to 1.05 TB native	Up to 3.5 TB native	Up to 9.24 TB + native	Up to 11.6 TB + native	Up to 490 GB native
Cartridges per library	16 or 30 cartridges	68 or 100 cartridges	88 , 176, or 264 cartridges	326 cartridges	8 or 14 cartridges
Backup restore speed	72 GB per hour	126 GB per hour	162 GB per hour	288 GB per hour	18 GB per hour
Maximum drives per library	2 or 4 drives	2, 4, or 7 drives	3, 6, or 9 drives	Up to 16 drives	Single
Drives supported	DLT 4000 and 7000	DLT 4000 and 7000	DLT 4000 and 7000	DLT 4000 and 7000	DLT 4000 and 7000
Library reliability	> 1,000,000 MSBF	> 2,000,000 MSBF	> 1,000,000 MSBF	> 1,000,000 MSBF	> 1,000,000 MSBF
Mean time to repair	< 30 minutes MTTR	< 30 minutes MTTR	< 30 minutes MTTR	< 30 minutes MTTR	< 30 minutes MTTR
Host interface	Differential SCSI-3 Fast & Wide, 68-pin	Differential SCSI-3 Fast & Wide, 68-pin	DLT4000: 50-pin Differential, SCSI-2 DLT7000: 68-pin Differential SCSI-3 Fast & Wide,	Differential SCSI-3 Fast & Wide 68-pin	Differential SCSI-2 Fast Narrow or Wide High, 68-pin
Operating temperature	+15°C to +32°C (59°F to 90°F)	+15°C to +32°C (59°F to 90°F)	+15°C to +32°C (59°F to 90°F)	+0°C to +32°C (50°F to 90°F)	+10°C to +40°C (50°F to 104°F)
Non-operating temperature (storage & shipping)	-40°C to +66°C (-40°F to 151°F)	-40°C to +66°C (-40°F to 151°F)	-40°C to +66°C (-40°F to 151°F)	-40°C to +66°C (-40°F to 151°F)	-40°C to +66°C (-40°F to 151°F)
Operating humidity	20 to 80% non-condensing	20 to 80% non-condensing	30 to 80% non-condensing	20 to 80% non-condensing	20 to 80% non-condensing
Physical dimensions	Height: Rackmount 18" (with slides 21") Deskside 21" Width: 17.5" Depth: 28"	56"H x 23"Wx 36"D	78.7"H x 28.2"W x 47"D (add 12" to width for IOD)	75"H x 57"W x 29"D	18"H x 10.5"W x 20"D
Power requirements	90 to 264 VAC, 140 to 200 watts average	90 to 264 VAC, 250 to 310 watts average	90 to 264 VAC, 360 to 410 watts average	90 to 264 VAC, 1330 to 1554 watts average	100 to 240 VAC, 140 to 200 watts average
Weight	Rackmount: 89 pounds Deskside: 101 pounds	500 pounds (7 drives & 100 cartridges)	950 pounds	1300 pounds	62 pounds

Alpine Standalone DLT Tape Drive Specifications

FEATURE	Alpine DLT4000	Alpine DLT7000
Tape cartridge capacity	40 GB @ 2:1	70 GB @ 2:1
Sustained transfer rate per drive	3 MB per second @ 2:1	10 MB per second @ 2:1
Peak transfer rate per drive	Synch 10 MB/second	Synch 20 MB/second Asynch 12 MB/second
Search time	68 seconds	60 seconds
Interface	SCSI-2 Fast/Wide (SE or Differential)	SCSI-2 Fast/Wide (SE or Differential)
Hard error rate	1 x 10^{17} bits read	1 x 10^{17} bits read
Undetected error rate	1 x 10^{27} bits read	1 x 10^{27} bits read
Tape drive MTBF	200,000 hours	200,000 hours
Head life	10,000 hours	30,000 hours
Media durability	1,000,000 passes	1,000,000 passes
Tape Life – Archive Storage	30 years+	30 years+
Operating Temp/Humidity	50°F to 104°F / 20% to 80%	50°F to 104°F / 20% to 80%
Power Specifications	+5V, +12V / 25 watts	+5V, +12V / 37 watts
Physical dimensions	5"H x 10"W x 15"D	5"H x 10"W x 15"D
Weight	13.7 pounds	14.7 pounds

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