



Backup Storage Guide



Volume 3

Your **first step** toward smarter backup

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Enterprise Storage is becoming one of the most critical IT issues any business faces. New applications are more data-intensive than ever. Consumption of disk storage is rising exponentially. And – like never before – your data is absolutely vital to the day-to-day operation of your business. You may be protecting that data against drive failures with RAID or other fault-tolerant systems, but that won't protect you against deleted files, natural disasters or theft the way a rock-solid backup system can. But where do you get started? And how do you choose the right backup technology? By picking up this guide, you've taken the first step.

Compaq created this guide to give you a sensible, manageable approach to creating a backup strategy for your enterprise. Because once you understand your business needs, we're quite confident you'll make the smart choice when it comes to backup solutions: Compaq.

Six reasons why there's only one brand to choose

- 1. Compaq knows storage –** As the largest provider of multi-user storage* across all markets, including Microsoft® Windows® NT,® Microsoft Windows 2000, UNIX and Novell NetWare, Compaq understands that backup is a vital part of your storage strategy. So you can count on us to deliver the right solutions for all your enterprise backup needs.
- 2. Compaq backup solutions are optimized specifically for your servers –** Compaq backup solutions integrate and perform with your Compaq servers and NAS appliances better than any other brand. Selected, tested and tuned by Compaq engineers specifically for optimal performance with Compaq servers, our backup solutions give you the maximum reliability and performance you need.
- 3. Compaq backup solutions are proven with software you already rely on –** Our industry-leading partnerships with backup software vendors like Computer Associates, VERITAS Software, and Legato are some of the strongest in the business. So you're assured seamless integration and ultimate reliability with your backup software. You're also assured compatibility with your operating systems – whether you run Microsoft Windows NT, Microsoft Windows 2000, Novell NetWare, *Compaq Tru64™* UNIX, Open VMS or Sun Solaris, so implementation is quick, easy and nondisruptive to your users.
- 4. Compaq backup solutions provide choices for all your needs –** From cost-effective backup and restore for individual workstations, to massive, enterprise-level automated solutions, to customized consulting services, Compaq gives you options from end to end. With new technologies such as Fibre Channel, distance and speed limitations are no longer an issue. Compaq will provide you with an optimized data protection solution for direct- or fibre-attached environments. A total Compaq backup solution means protection, performance and smooth integration across your entire business – plus one-stop shopping for products, service and support.
- 5. Compaq backup solutions come with great Compaq quality –** Although it's unlikely you'll ever need it, Compaq backup solutions come with a warranty you can count on. All Compaq tape libraries carry a three-year limited warranty. All other Compaq backup products are warranted for three years for parts. Once installed into a Compaq system, the product carries the remainder of the warranty period for the Compaq product in which it is installed.
- 6. Compaq backup solutions provide a complete, end-to-end non-disruptive solution for departments and data centers.** The Non-Disruptive Backup Solution provides a fully tested, characterized backup infrastructure for Windows NT that enhances the application availability of business-critical systems. Today's business model increasingly requires 24x7 data and application availability, with little time for a backup window. The Non-Disruptive Backup Solution provides a complete backup infra-structure that offloads backup responsibility from the application server, increases time for profit-generating activities, simplifies backup implementation and management, ensures data integrity, and improves the availability of Oracle and Microsoft Exchange.

*Based on combined 1998 revenue. IDC Flash #17812 – January 1999.

Investing in a particular backup and restore technology without closely analyzing your needs can end up costing you a lot – either in wasted resources or insufficient solutions. Taking a methodical approach to planning will pay off in the end, and make choosing the right technology simple. Here are the basics.

For detailed sizing information for your SAN-based Environment, access the EBS Sizer at www.compaq.com.

Designing your backup solution

- First, you'll want to conduct a backup needs analysis for your environment. Determine what information needs to be protected and where it resides. A few questions to ask yourself include:
 - How many generations of backup do you want to keep? If you're comfortable overwriting your only current backup, you may be able to save money on media.
 - Is it convenient for your users to have the system shut down for backup? Do you need to address the needs of international users?
 - Identify the acceptable backup window for your application network.
 - Identify the level of bandwidth available in your backup environment (i.e., local or over the network at 10 or 100 MB/s Ethernet or over Fibre Channel).
 - Select the maximum size of backup domains to enable you to reach your desired backup window.

[Quantity of data ÷ network performance ÷ backup window = number of domains]
- Next, you'll create backup "domains," manageable sub-segments of the production server networks, each with a dedicated backup server with one or more tape drives or tape libraries.
- Now you can choose a backup solution for each backup domain. With your backup window and capacity in mind, the charts on the next two pages will help you determine the type of technology you'll need to achieve your goals.

example

YOU NEED TO BACK UP A 1 TB ACCOUNTING NETWORK IN LESS THAN EIGHT HOURS. NETWORK BANDWIDTH PERFORMANCE IS ABOUT 15 GB/HR. AS A SINGLE DOMAIN, THE NETWORK WOULD REQUIRE 67 HOURS OF BACKUP TIME. SO TO ACHIEVE THE EIGHT-HOUR WINDOW, YOU WILL NEED TO DIVIDE THE NETWORK INTO TEN DOMAINS OF 100 GB EACH, WHICH EQUATES TO 150 GB/HR. THOSE DOMAINS CAN NOW BE BACKED UP SIMULTANEOUSLY – ALL IN UNDER SEVEN HOURS.

Choosing the backup device

Choosing the automated backup device

BACKUP WINDOW

GB/HR	1 HOUR			2 HOUR			4 HOUR			8 HOUR			16 HOUR			24 HOUR		
0 - 4 GB	One 12/24 DAT Drive, One 20/40 DAT Drive			One 12/24 DAT Drive, One 4/8 DAT Drive			One 4/8 DAT Drive, One 4/8 SLR Drive			One 4/8 SLR Drive								
5 - 8 GB	Two 12/24 DAT Drives, One 20/40 SLR Drive			Two 12/24 DAT Drives, Two 4/8 DAT Drives			One 4/8 DAT Drive, One 4/8 SLR Drive			One 4/8 SLR Drive								
9 - 16 GB	One AIT 35 Drive, Three 20/40 DAT Drives			Two 12/24 DAT Drives, One 20/40 DAT Drive			Two 4/8 DAT Drives, One 12/24 DAT Drive			One 4/8 SLR Drive								
17 - 48 GB	One or Two 35/70 DLT Drives	One or Two AIT 50 Drives	Three 20/40 DAT Drives	One AIT 50 Drive	Two 20/40 DLT Drives	Two 20/40 DAT Drives	One AIT 35 Drive	One 20/40 DLT Drive	One 20/40 DAT Drive	One 20/40 DLT Drive	One 12/24 DAT Drive	One 20/40 DLT Drive	One 12/24 DAT Drive					
49 - 90 GB	Three 35/70 DLT Drives	Three AIT 50 Drives	Eight 20/40 DLT Drives	Two 35/70 DLT Drives	Two AIT 50 Drives	Four 20/40 DLT Drives	One 35/70 DLT Drive	One AIT 50 Drive	Two 20/40 DLT Drives	One AIT 35 Drive	One 20/40 DLT Drive	One 20/40 DLT Drive						
91 - 180 GB	One DLT Tape Array II			Three AIT 50 Drives	Three 35/70 AIT Drives	Eight 20/40 DLT Drives	Two 35/70 DLT Drives	Two AIT 50 Drives	Four 20/40 DLT Drives	One 35/70 DLT Drive	One AIT 50 Drive	Two 20/40 DLT Drives	One AIT 35 Drive	One 20/40 DLT Drive	One 20/40 DLT Drive			
181 - 360 GB	Two DLT Tape Array II			One DLT Tape Array II			Three 35/70 DLT Drives	Three AIT 50 Drives	Eight 20/40 DLT Drives	Two 35/70 DLT Drives	Two AIT 50 Drives	Four 20/40 DLT Drives	One 35/70 DLT Drive	One AIT 50 Drive	One 20/40 DLT Drive	One 35/70 AIT Drive	One 20/40 DLT Drive	
361 - 720 GB				Two DLT Tape Array II			Three 35/70 DLT Drives	Three AIT 50 Drives	Eight 20/40 DLT Drives	Two 35/70 DLT Drives	Two AIT 50 Drives	Four 20/40 DLT Drives	One 35/70 DLT Drive	Two AIT 35 Drives	Four 20/40 DLT Drives			
721 - 1000 GB				Two DLT Tape Array II			Three 35/70 DLT Drives	Three AIT 50 Drives	Eight 20/40 DLT Drives	Two 35/70 DLT Drives	Two AIT 50 Drives	Four 20/40 DLT Drives						
1001 - 2000 GB				Two DLT Tape Array II			Three 35/70 DLT Drives	Three AIT 50 Drives	Eight 20/40 DLT Drives	Two 35/70 DLT Drives	Three AIT 50 Drives	Eight 20/40 DLT Drives						
2001 - 3000 GB				Two DLT Tape Array II			Two DLT Tape Array II											
3001 - 4000 GB				Two DLT Tape Array II			Two DLT Tape Array II											
2001 - 3000 GB				Two DLT Tape Array II			Two DLT Tape Array II											
2001 - 3000 GB				Two DLT Tape Array II			Two DLT Tape Array II											

BACKUP WINDOW

GB/HR	1 HOUR		2 HOUR		4 HOUR		8 HOUR		16 HOUR		24 HOUR	
0 - 4 GB	One 2-Drive TL881 MiniLibrary	One 12/24 DAT Autoloader	One 2-Drive TL881 MiniLibrary	One 12/24 DAT Autoloader								
5 - 8 GB	One 2-Drive TL881 MiniLibrary	One 20/40 DAT Autoloader	One 2-Drive TL881 MiniLibrary	One 12/24 DAT Autoloader								
9 - 16 GB	One 2-Drive TL881 MiniLibrary		One 2-Drive TL881 MiniLibrary	Two 20/40 DAT Autoloaders	One 1-Drive TL881 MiniLibrary	One 20/40 DAT Autoloader	One 1-Drive TL881 MiniLibrary	One 12/24 DAT Autoloader				
17 - 48 GB	One 2-Drive TL895 Library	One 2-Drive TL891 MiniLibrary	One 2-Drive TL891 MiniLibrary	Two 2-Drive TL891 MiniLibraries*			One 1-Drive TL881 MiniLibrary					
49 - 90 GB	One 5-Drive TL895 Library	Two 2-Drive TL891 MiniLibraries*	One 2-Drive TL891 MiniLibrary	One 2-Drive TL891 MiniLibrary		Two 2-Drive TL881 MiniLibraries*		One 2-Drive TL881 MiniLibrary	One 1-Drive TL881 MiniLibrary			
91 - 180 GB	One 7-Drive TL895 Library**	Three 2-Drive TL891 MiniLibraries*	One 5-Drive TL895 Library	Two 2-Drive TL891 MiniLibraries*	One 2-Drive TL895 Library	One 2-Drive TL891 MiniLibrary	Two 2-Drive TL881 MiniLibraries	Two 2-Drive TL891 MiniLibraries	One 2-Drive TL881 MiniLibrary		One 2-Drive TL881 MiniLibrary	
181 - 360 GB	One 12-Drive ESL9326D Enterprise Library**		One 7-Drive TL895 Library	Three 2-Drive TL891 MiniLibraries*	One 5-Drive TL895 Library	Two 2-Drive TL891 MiniLibraries*	One 2-Drive TL895 Library	One 2-Drive TL891 MiniLibrary	One 1-Drive TL891 MiniLibrary	Two 2-Drive TL881 MiniLibraries*	One 2-Drive TL881 MiniLibrary	
361 - 720 GB	One 16-Drive ESL9326D Enterprise Library**		One 12-Drive ESL9326D Enterprise Library**		One 7-Drive TL895 Library	Three 2-Drive TL891 MiniLibraries*	One 5-Drive TL895 Library	Two 2-Drive TL891 MiniLibraries*	One 2-Drive TL895 Library	Two 2-Drive TL891 MiniLibraries*	One 1-Drive TL891 MiniLibrary	
721 - 1000 GB			One 16-Drive ESL9326D Enterprise Library**		One 10-Drive ESL9326D Ent. Library**	Five 2-Drive TL891 MiniLibraries*+**	One 5-Drive TL895 Library		One 2-Drive TL895 Library	One 2-Drive TL891 MiniLibrary*	One 2-Drive TL895 Library	
1001 - 2000 GB			One 16-Drive ESL9326D Enterprise Library**		One 10-Drive ESL9326D Ent. Library**	Five 2-Drive TL891 MiniLibraries*+**	One 5-Drive TL895 Library		Three 2-Drive TL891 MiniLibraries*	Two 2-Drive TL891 MiniLibraries*	One 2-Drive TL891 MiniLibrary*	
2001 - 3000 GB			One 12-Drive ESL9326D Enterprise Library**		One 7-Drive TL895 Library		One 5-Drive TL895 Library		One 5-Drive TL895 Library			
3001 - 4000 GB			One 12-Drive ESL9326D Enterprise Library**		One 7-Drive ESL9326D Enterprise Library**		One 5-Drive TL895 Library					

* Requires expansion unit and pass through
 ** Suggest multihost backup configuration with *Compaq StorageWorks Enterprise Backup Solution*
 *** Requires expansion unit if storage exceeds 700 GB

Choosing the right connection

Customers have more technology options for backup and restore today than ever before.

Traditionally, customers were limited to direct-attached data protection solutions – a tape drive or library with a direct SCSI attachment to the server. Backup and restore traffic was sent across the core communications network (LAN, WAN, etc.) to the server that had the physical connection to the backup and restore device.

Direct-attached backup and restore is still effective for many customers, but the development of Fibre Channel technology has provided a way to offload data traffic from the core communications network to a dedicated network where storage information is the only traffic. This alternative is known as a Storage Area Network (SAN).

Fibre Channel is a two-way communication channel that is used to interconnect computers and storage devices. Fibre Channel is used today as an enabling technology for SANs, where primary storage and secondary storage can be shared by multiple servers. The SAN runs parallel to the existing communications network and provides a dedicated data path. By offloading data traffic to a SAN, the primary network enjoys better performance, and storage can be more efficiently allocated among multiple servers.

the right solution

flexibility and speed

Fibre Channel technology also eliminates the current constraints of SCSI-attached solutions – distance and speed.

Fibre Channel can connect devices up to 10 KM apart and provide a high-speed transport mechanism at 100 MB/s. This added flexibility and speed has created new solutions and architecture options for data protection solutions.

When choosing an automated storage product, customers must ask the question – what is the best option today, and will my investment be protected tomorrow? Compaq can provide you the best direct-attached (SCSI) solution today, with an easy upgrade path when you are ready to move to a SAN-based data protection solution. Indeed, many of our customers already own Compaq Library products – and we have helped them transition from a SCSI environment to a Fibre Channel environment with simple enhancements to their current investment

Whether you are considering a direct-attached tape product to deploy in a small server farm or are trying to protect Terabytes of information in an enterprise data center, Compaq has the right architecture for you. In the pages that follow, we will clearly identify what connection options you have by product, so you can choose the right solution or flexible architecture for your business today and tomorrow.

important choices

When choosing a data protection solution, customers have many important choices, including connection type. Compaq provides customers two options for connecting larger storage devices to their computing environment – direct-attached SCSI-based solutions and SAN-attached solutions based on Fibre Channel technology.

StorageWorks
data protection solutions

Entry-level solutions

For entry-level backup, you'll want solutions that are simple, cost-effective and easy to integrate, but still provide investment protection as you grow. For those needs, the Compaq 4/8 GB and 12/24 GB DAT drives are great alternatives.

& environments

For smaller local backups of individual workstations or small business servers with broader backup windows, Compaq offers a range of affordable entry-level solutions.

Compaq 4/8 GB DAT drive

For entry-level environments with shorter backup windows, this entry-level DAT solution uses DDS-2 helical scan technology to provide higher backup performance for mainstream servers and workstations – all in an affordable internal solution kit.

- A 2.8 to 5.6 GB/hr data transfer rate
- 4 GB native capacity, up to 8 GB with 2:1 compression
- 4/8 GB DAT data cassette, cleaning cassette and live trial software included*
- Internal automated head cleaner lowers your total cost of ownership by reducing failure rates

*Purchase may be necessary for software use beyond the trial period.



Compaq 12/24 GB DAT drive

Backward-read compatible (with both DDS-1 and DDS-2 drives) to protect your current DAT media investments, this device allows you to achieve the highest backup capacities possible while maintaining your current DAT standard.

- 12 GB native capacity, up to 24 GB with 2:1 compression
- DDS-3 helical scan technology delivers 4.2 to 8.4 GB/hr
- Internal automated head cleaner reduces failure rates and dramatically reduces user maintenance
- 12/24 GB DAT DDS-3 data cassette, cleaning cassette and live trial software included*
- Fits in Compaq workstation and server bays or in an External SCSI Storage Expander II Cabinet for a rackmounted solution

*Purchase may be necessary for software use beyond the trial period.



Workgroup & departmental environments

For larger workgroups and departments with higher backup loads and smaller backup windows, Compaq offers higher performing, more manageable backup solutions.

These domains may not only need higher capacity and performance, but more manageability and automation as well – so you can automate reliable backups and focus energy resources on other things.

Compaq 20/40 GB DAT drive

The 20/40 GB DAT DDS-4 tape drive is a high-performance, low-cost tape backup solution and the next generation in a long line of reliable DAT products from Compaq.

- 20 GB native capacity, up to 40 GB with 2:1 compression
- 2.4 MB/s data transfer rate, up to 4.8 MB/s with 2:1 compression
- Backward read/write compatible with DDS-1, DDS-2 and DDS-3 media
- Uses a helical scan recording technique, which has been specifically designed to suit the special requirements of digital data storage devices
- Internal 5.25" or external tabletop form factors
- Disaster Recovery Functionality
- 20/40 GB DAT data cassette, cleaning cassette and live trial software included*

*Purchase may be necessary for software use beyond the trial period.



Compaq 20/40 GB DAT 8 cassette auto loader

A high-capacity automated solution with increased reliability, performance and backward-read compatibility with DDS-2, DDS-3 and DDS-4 media.

- 320 GB* of total capacity based on using a "random accessed" 8-cassette magazine
- Up to 16.8 GB/hr transfer rate
- Fast cartridge load time – 58 seconds average from any position in the magazine
- Read-after-write data verification
- Compaq Insight Manager support for better fault detection
- Internal and external model configurations available
- Ideal for automated data protection in remote office environments
- 20/40 GB DAT 8 cassette auto loader data cassette, cleaning cassette and live trial software included**

*Based on 2:1 data compression

**Purchase may be necessary for software use beyond the trial period.



Compaq 20/40 GB DLT tape drive

A flexible, reliable internal or external solution with generous capacity for a wide range of environments.

- 20 GB native capacity, up to 40 GB with 2:1 compression – plenty for even a mid-sized business
- Backup speeds of up to 10.6 GB/hr
- Easily backward-read compatible with existing DLT 10/20 and 15/30 GB media
- Internal 5.25" or external tabletop form factor
- 20/40 GB data cassette, cleaning cassette and live trial software included*

* Purchase may be necessary for software use beyond the trial period.



Compaq AIT 35 GB tape drive

Bringing the advantages of Advanced Intelligent Tape (AIT) to Compaq customers, the AIT 35 GB tape drive offers three times the capacity of DDS-3 at only twice the price. The AIT 35 GB drive integrates into Compaq rack and storage cabinet configurations.

- Three times the capacity and performance and only twice the price as DAT
- A new standard for Departmental Backup from a company you can trust – Compaq
- Extreme reliability with increased backup capacity designed for strenuous, high duty-cycle applications
- Achieves outstanding capacity and reliability in a 3.5" form factor
- Disaster Recovery Functionality
- AIT 35 GB tape drive data cassette, cleaning cassette and live trial software included*

*Purchase may be necessary for software use beyond the trial period.



Compaq AIT 50 GB tape drive

For businesses with growing needs for departmental and workgroup backup, the Compaq AIT (Advanced Intelligent Tape) 50 GB drive is the "just right" solution.

- 50 GB native capacity, up to 100 GB with 2:1 compression
- 6 MB/s data transfer rate, up to 12 MB/s with 2:1 compression
- Backward read/write compatible with AIT-1 25 GB, 35 GB or TZS 20 media
- Automatic head cleaning with exceptional abrasion resistance, for virtually contamination-free operation in a typical computer room environment
- Available in 5.25" internal and external tabletop form factors
- Disaster Recovery Functionality
- AIT 50 GB data cassette, cleaning cassette and live trial software included*

*Purchase may be necessary for software use beyond the trial period.



Compaq TA1000 AIT tape array

High-availability is becoming an important factor in today's IT departments, so we designed the TA1000 to offer hot-pluggable technology. This means the customer does not have to take the server down because of a component failure.

- Up to 196 GB/hr data transfer rate
- 1 TB of storage capacity (with 2:1 compression)
- Uses 10 AIT 50 GB tape drives for simultaneous backup jobs
- Hot-pluggable capability
- Available in a 5 or 10 drive configuration
- Using in-house Compaq technology
- LVD Interface
- Qualified behind Windows NT 4.0, Windows 2000, and NetWare
- Supported with VERITAS Backup Exec™ and Computer Associates ARCserve®/IT™
- Compatible with Computer Associates RAID Option and VERITAS RAIDirector software



Compaq SSL2020 AIT Library

Cost-effective entry into SCSI-attached consolidated backup and restore with a high-performance and high-capacity within a small form factor. The SSL2020 adds a new standard for Automated Entry-Level and Departmental Backup.

- Scalable up to five modules for a total of 10 TB
- Supports one or two AIT 50 GB tape drives in each module
- Native transfer rates up to 40 GB/hr in a single module
- Compatible with a wide variety of operating systems, software applications and server platforms
- Compact form factor only taking 4U of rack space with a single module
- Tabletop and rackmount configurations available
- Removable magazine for off-site backup storage

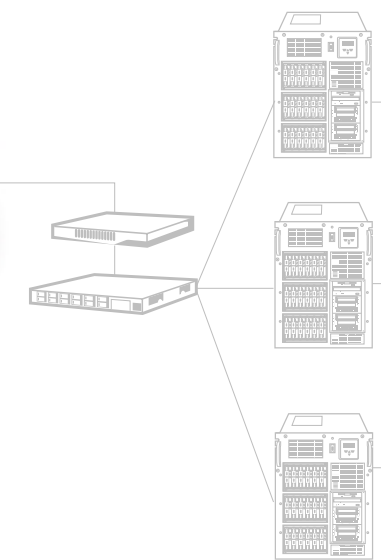


StorageWorks Enterprise Backup Solution (EBS) for Workgroups

EBS BACKPAQ AND EBS ARCPAQ

These bundles are ideal for customers who want to enjoy the benefit of centralized and automated data protection at an aggressive price per server. These solutions bring automated, centralized backup to distributed Compaq and/or x86 servers in Windows NT/2000 and Novell NetWare environments. EBS for Workgroups delivers high-performance Fibre Channel storage area network (SAN) backup for about the same price as backing up individual servers or networked-attached storage systems via tape drive.

- EBS BackPaq is a bundle ideal for five servers complete with VERITAS Backup Exec software
- EBS ARCPaq is a bundle ideal for servers complete with Computer Associates ARCserve/IT software
- An independent 100 MB/s Fibre Channel storage network
- One Fibre Channel Storage Hub 7 connects up to six servers and a tape controller to the Fibre Channel Loop.
- The Fibre Channel Tape Controller allows the tape library to be shared by all the servers on the Fibre Channel loop.
- Backup and restore management software takes advantage of the added bandwidth of Fibre Channel to maximize performance and allows multiple servers to access one or more tape libraries simultaneously.
- EBS BackPaq and EBS ARCPaq provide a simple, bundled, and affordable solution for a workgroup environment.



Enterprise Backup Solution for Workgroups

Architecture

- Ideal for five ProLiant or x86 servers
- EBS BackPaq comes with VERITAS Backup Exec software
- EBS ARCPaq comes with Computer Associates ARCserve/IT software
- Both solutions are based on a Fibre Channel architecture

Options

High-end backup/restore environments to Data Center environments

In critical environments with massive backup requirements and virtually no time for downtime, Compaq offers highly automated and manageable backup solutions. These demanding environments need more than just high-capacity and transfer rates. They need intelligent, high-availability solutions that provide maximum control over backup while keeping administration costs low.

Often, you'll need 24x7, mission-critical protection within minimal backup windows. Once again, Compaq offers a range of alternatives from fast, dense, yet basic DLT drives to fully automated intelligent tape arrays and libraries with advanced media management, RAIT (Redundant Array of Independent Tapes) fault-tolerance (when combined with Computer Associates ARCserve/IT) and full lights-out automation.

- Compaq 35/70 GB DLT Drive
- Compaq DLT Array II
- Compaq TL881 MiniLibrary, 20/40 DLT-based scalable library
- Compaq TL891 MiniLibrary, 35/70 DLT-based scalable library
- Compaq TL895, 96-slot 35/70 DLT-based library
- Compaq ESL9326D 326 slot 35/70 DLT-based Enterprise Library
- Fibre Channel and Direct-Attached Solutions

Compaq 35/70 GB DLT drive

For large departmental and high-end servers that don't require automated backup, this solution offers the fastest and largest half-inch tape technology for the money.

- 35 GB native capacity, up to 70 GB with 2:1 compression
- Up to 36 GB/hr maximum transfer rate
- Reads and writes 10/20, 15/30, 20/40, and 35/70 GB DLT formats, so you can use media you may already own
- 35/70 GB data cassette, cleaning cassette and live trial software included*
- Internal and external model configurations available

*Purchase may be necessary for software use beyond the trial period.



Compaq DLT Tape Array II

A cost-effective array solution for your high-end, high-availability requirements, the DLT Tape Array II provides the fault protection of RAIT plus the protection of locating the array off-site from your production servers.

- 140 GB native capacity, up to 280 with 2:1 compression
- 170 GB/hr maximum transfer rate
- Reads and writes 10/20, 15/30, 20/40, and 35/70 GB DLT formats, so you can use media you may already own
- Rackmountable for protection and manageability in data-center environments
- Compatible with Computer Associates RAID Option and VERITAS RAIDirector software



Compaq TL881 scalable DLT MiniLibrary

Designed for either local backup or over a 1 GB/s LAN.

- ➔ Low-cost entry-level DLT automation solutions with upgradability
- ➔ Back up as much as 3.6 TB of data within a multi-unit library configuration or start with just a single 400 GB solution
- ➔ From 10.8 GB/hr to 54 GB/hr (native) performance
- ➔ Software RAIT-capable for added performance and fault protection (with third-party software)
- ➔ A rackmountable solution supporting up to six modules in a single rack
- ➔ DLT base units and data units for a fully scalable and custom configurable solution



Compaq TL891 scalable DLT MiniLibrary

This model can be used for either local backup or over a 1 GB/s LAN for SAN.

- ➔ Each unit supports one or two Compaq 35/70 DLT drives and 10 cartridges
- ➔ Back up as much as 6.3 TB of data within a multi-unit library configuration or start with just a single 700 GB solution
- ➔ From 36 GB/hr to 180 GB/hr (native) performance, providing transfer of up to one TB in less than six hours (using 10 drives in a multi-unit library configuration)
- ➔ Software RAIT-capable for added performance and fault protection (with third-party software)
- ➔ A rackmountable solution supporting up to six modules in a single rack
- ➔ DLT Base Units and Data Units for a fully scalable and custom configurable solution
- ➔ Qualified for the *Compaq StorageWorks SAN-based Enterprise Backup Solution*

Qualified for *Compaq ProLiant™* and x86 servers running Windows NT and Novell Netware and *Compaq AlphaServers™* running Tru64 UNIX and Open VMS



Architecture

Options

- ➔ The TL891 can be deployed in two configurations:
 - Directly attached to a server using the communications network backbone (LAN, WAN, etc.)
 - SAN-attached to multiple servers using a dedicated Fibre Channel backbone for storage communications, providing LAN-free data protection (supports switched fabric and Fibre Channel arbitrated loop)

Compaq TL895 DLT Tape Library

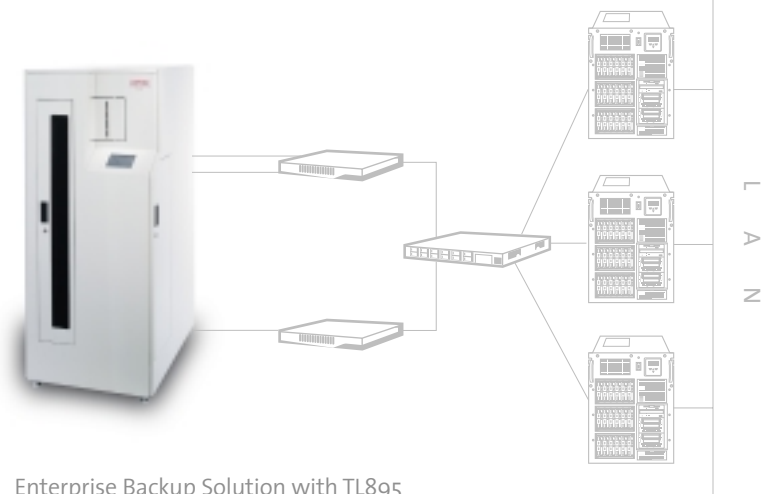
Back up as much as 6.7 TB of data within a single stand-alone library.

- Supports two to seven Compaq 35/70 DLT drives and 96 cartridges
- From 36 GB/hr to 126 GB/hr (native) performance
- Software RAIT-capable for added performance and fault protection (with third-party software)
- Highest reliability of any DLT automation device with 2 million mean swaps (MSBF)
- Qualified for the *Compaq StorageWorks SAN-based Enterprise Backup Solution*

Qualified for *Compaq ProLiant™* and x86 servers running Windows NT and Novell Netware and *Compaq AlphaServers™* running *Tru64* UNIX and Open VMS



Direct-Attached (LAN) Backup Solution



Enterprise Backup Solution with TL895 (supports cascading hub and switched environments)

Architecture

- The TL895 can be deployed in two configurations:
 - Directly attached to a server using the communications network backbone (LAN, WAN, etc.)
 - SAN-attached to multiple servers using a dedicated Fibre Channel backbone for storage communications, providing LAN-free data protection (supports cascading hub or switch connection for SAN-based solutions)

Options

StorageWorks ESL9326D Enterprise Storage Library

Delivers unprecedented flexibility, capacity, availability and investment protection in the most demanding enterprise environments.

- Supports six to 16 Compaq 35/70 DLT drives and 326 cartridges for storage up to 11.4 TB of data (native) and delivers transfer rates up to 288 GB/hr (native)
- Pass-through kit provides scalability up to five libraries and 80 drives providing up to 57 TB storage (native) and up to 1.2 TB/hr (native) transfer rate
- Continuous uptime via hot-swappable drives, power supplies and cooling fans
- Mission-critical availability with redundant power, power supplies and fans
- Drive and robotics status reported via the Compaq Insight Manager
- Space-saving design with service access doors at front and rear eliminates the need for providing service space at sides – saving valuable data-center space

Qualified for *Compaq Alpha ProLiant* servers, Sun and x86 servers running *Compaq Tru64* UNIX, OpenVMS, NetWare, Microsoft Windows NT or Sun Solaris.

Qualified for the *Compaq StorageWorks SAN-based Enterprise Backup Solution*.

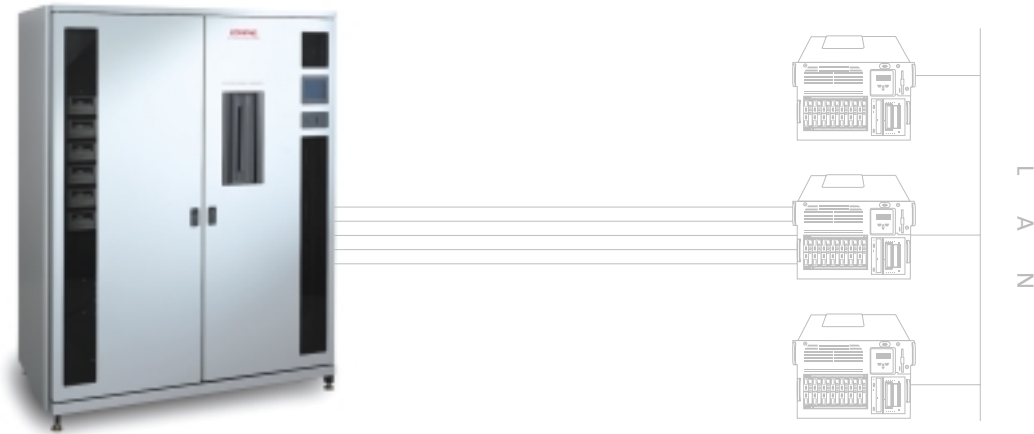
Backup Exec 8.0 on Windows NT and Computer Associates ARCserve/IT 6.61 on NT support up to 32 drives in 2 ESL9326 modules. Future releases will enhance support to maximum capacity. Backup Exec on Netware does not support pass-through capability.

Architecture

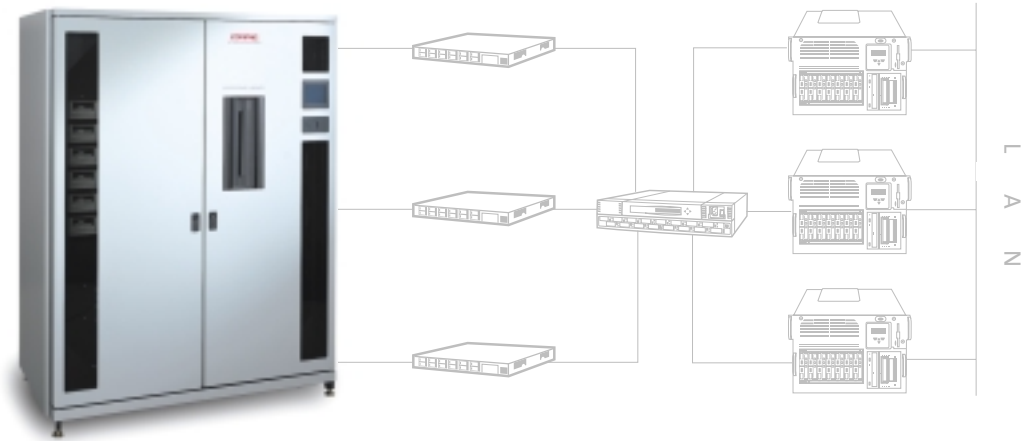
- The ESL9326D has three deployment configurations
 - Directly attached to a server using the communications network backbone (LAN, WAN, etc.)
 - SAN-attached to multiple servers using a dedicated Fibre Channel backbone for storage communications, providing LAN-free data protection in a switched environment
 - Multi host offers the flexibility of deploying multiple servers directly attached to specific drives in an ESL library. Multi host also provides dedicated partitioning without the use of Fibre Channel

Options

StorageWorks ESL9326D Enterprise Storage Library



Direct-Attached (LAN) Backup Solution



Enterprise Backup Solution with ESL9326D



Multi Host Backup Solution

A closer look at data protection

The Compaq StorageWorks SAN

Enterprise Backup solution

- Backup speeds of up to 100 MB/s dramatically reduce backup time
- Cable lengths up to 500m allow greater flexibility without compromising performance
- Fewer tape devices per server lower your hardware costs
- Compatibility with current DLT 35/70, TL891, TL895 and ESL9326D libraries protect your investment

The Compaq StorageWorks Enterprise Backup Solution is a complete backup and restore solution for consolidated backup at local server speeds. It combines SCSI-based backup technology with Fibre Channel technology to link multiple servers to a single backup device, creating an independent, high-speed network just for backup and restore.

Consolidating your backup systems to a designated Enterprise Storage Network reduces the time, effort and staff devoted to monitoring and management, which reduces your total cost of ownership. Data backups won't slow down user productivity, and Fibre Channel technology provides transfer rates up to five times faster than SCSI – for reliable backup in less time.

1. When it's time for a scheduled backup, a quick message is sent across your network signaling each server to begin backup.
2. Data is converted to Fibre Channel format via the host bus adapter in each server and transmitted directly from dozens of servers to the Fibre Channel SAN Switch, Hub 12 or Hub 7.
3. From the Switch or Hub, data passes to Fibre Channel Tape Controllers (one for up to four tape drives) where it is reconverted to SCSI for storage on your tape backup device.
4. The entire process bypasses your corporate network and takes advantage of the high speeds and longer distances of Fibre Channel technology.

Enterprise Backup Solution

FIBRE CHANNEL HOST CONTROLLER

PCI controller occupies one server slot and links your server to the Fibre Channel SAN Switch, Fibre Channel Storage Hub 12 or Fibre Channel Storage Hub 7.

FIBRE CHANNEL STORAGE HUB 12/HUB 7

- Enables you to connect multiple servers and tape devices onto a single Fibre Channel Storage Network
- Provides 12 or 7 direct Fibre Channel connections for centralized backup to up to 12 or 7 devices (single hub connections to servers and DLT tape libraries)
- Rackmountable, utilizing just 1U of rack space
- Supports a minimum of three DLT tape libraries
- Cascading hub support with the Fibre Channel Storage Hub 12 provides added connectivity to an existing Fibre Channel Arbitrated Loop, reducing your total costs (up to 22 Fibre Channel ports)

FIBRE CHANNEL SAN SWITCH

- 8 and 16 port switch form factors
- Redundant hot-pluggable power supply options
- Redundant and hot-pluggable cooling fans
- Full 100 MB/s bandwidth per switch port
- Web-Based Management tools packaged with all switches

FIBRE CHANNEL TAPE CONTROLLER-II

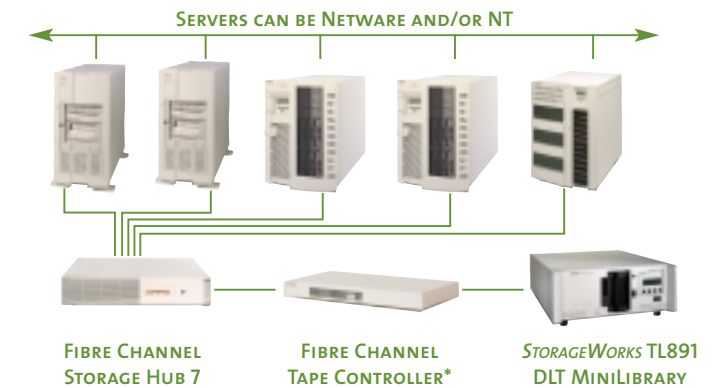
- Provides network connectivity and sharing for Compaq 35/70 DLT tape libraries over a Fibre Channel network
- Each controller connects to four 35/70 GB DLT tape drives
- Rackmountable, utilizing just 1U of rack space

Enterprise Backup Solution

Enterprise Backup Solutions for Workgroups (EBS BackPaq and EBS ARCPaq)

BENEFITS

- Centralization
- Automation
- Distance
- Better asset utilization
- Channel focus

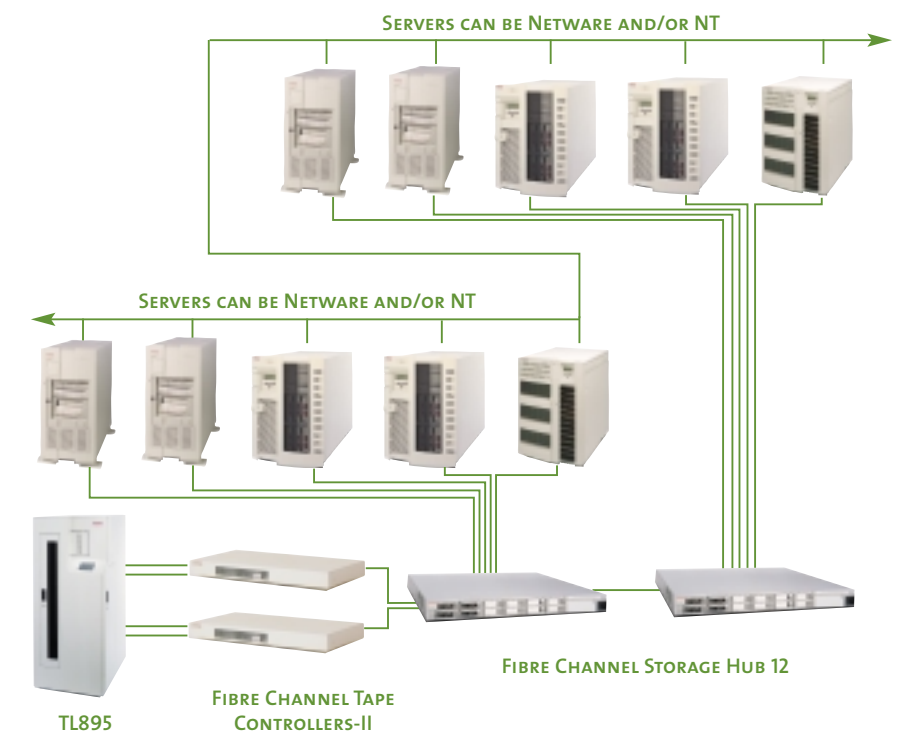


*Available only in EBS BackPaq and EBS ARCPaq.

Enterprise Backup Solutions for Departments

BENEFITS

- Centralization
- Flexibility
- Performance
- Scalability
- Consolidation



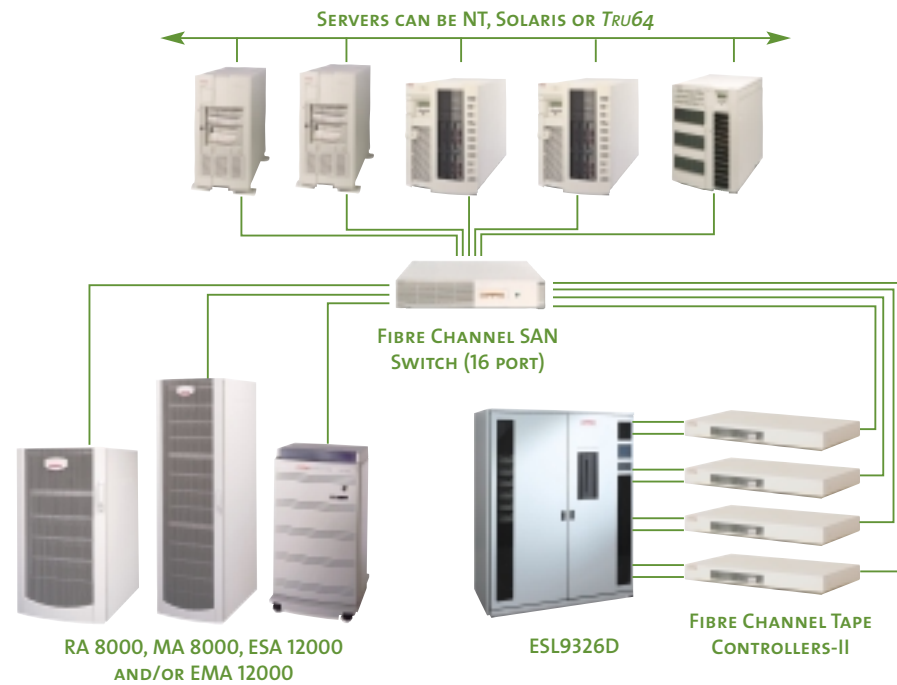
why tape media

Why Compaq

Enterprise Backup Solutions for Data Centers

BENEFITS

- Leverages current DLT library technology and shares tape device to all servers on Fabric switch
- Centralized automated backup for *Compaq ProLiant* and *AlphaServers*, other vendor x86 servers, and Sun Solaris servers
- High bandwidth and scalability to handle surging volumes
- Substantial management savings and tape standardization for all servers
- Storage consolidation through heterogeneous operating system and platform support



Enterprise Backup Solution

When you're helping customers choose the right Compaq storage solution, some of the best guidance you can give them is to choose Compaq-branded storage media.

Only Compaq-branded tape media are thoroughly tested and qualified for Compaq servers and storage devices. That assures your customer a level of reliability, performance, and confidence they can only get from Compaq.

CRITICAL RELIABILITY

Stored data is a business-critical asset and the most important asset to a company right behind its people. Putting that data at risk with inferior media can be a disastrous short-sighted decision. Compaq qualifies only the highest quality media for Compaq storage products, for the most reliable storage and data protection possible. We hold media with our name to the highest standards of quality assurance. In fact, only the best of breed pass Compaq's stringent qualification requirements.

Compaq media is carefully screened to ensure that defective media products never get to the market. If a single screened unit fails, the entire lot never reaches our customers. Our media testing programs are as rigorous as the testing our drives undergo. Street and functionality testing includes thousands of inserts, loads, and unloads and tape passes from beginning to end – more abuse than your media will receive in even the most demanding business environment.

ONE-STOP STORAGE SHOPPING

Compaq offers complete storage solutions – drives, media, servers, and tape libraries. So customers can look to one company for all their storage needs, from storage products to services. When you choose Compaq media, you can count on the full support from Compaq if you should ever encounter a media defect.

ENHANCED SALES OPPORTUNITIES FOR YOU

For our reseller partners, selling Compaq tape media not only generates satisfied customers, it also provides great opportunities for incremental and add-on sales – as well as lucrative promotional opportunities built around complete drive, library and media solutions.

Your customers can choose the right media from you when they purchase their storage solutions, and they can look to you for additional media down the road – knowing they're getting a tested, qualified and reliable solution fully supported by you and Compaq.

Key benefits of Compaq-branded media:

- Reliable, high-performance media fully qualified for Compaq storage devices
- The highest standards for testing, qualification and quality assurance
- A single source for customer storage needs
- Compaq support for both media and hardware
- Additional sales opportunities, satisfied customers and higher revenues

For detailed information, go to www.compaq.com/products/storageworks/mediafamily

Software

With the availability of both Fibre Channel connectivity and traditional SCSI-based attached backup solutions, customers have a choice when it comes to backup software. Today, you can choose from VERITAS Backup Exec, VERITAS NetBackup, Computer Associates ARCserve/T or Legato NetWorker to run your SCSI-attached backup. VERITAS and Computer Associates also support Fibre Channel-based backup with support modules such as the VERITAS Shared Storage Option and the Computer Associates Enterprise Library Option.

CHOOSE YOUR BACKUP SOFTWARE

Hardware is just part of your backup picture. You also need robust, reliable software to make it all happen how and when you need it to. Compaq has partnered with industry-leading backup software suppliers VERITAS, Computer Associates and Legato to bring you a choice of software in designing the solutions that best meet your needs. We've worked closely with these leading vendors to engineer, test and tune your backup solution for optimal integration and performance.

All Compaq backup products and the Compaq Enterprise Backup Solution are fully compatible and optimized for:

- VERITAS Backup Exec for Windows NT, Windows 2000 and/or NetWare. VERITAS Backup Exec provides automated, scalable protection of your data enterprise-wide. As a client-server-based network storage solution, Backup Exec protects mission-critical data from the desktop to multiple distributed heterogeneous Compaq servers. VERITAS NetBackup fully supports *Compaq Tru64* UNIX, Windows NT and Sun Solaris environments with the Enterprise Backup Solution along with TruCluster support.
- Computer Associates ARCserve/T for Windows NT, Windows 2000 or NetWare – Computer Associates ARCserve/T offers a 32-bit, multi-threaded modular architecture optimized for high-performance in PC LAN multi-server environments. Performance features include parallel streaming, optimized device support, data compression and client push agents.
- Legato NetWorker™ helps automatic integration with the popular storage management frameworks. Legato NetWorker fully supports *Compaq Tru64* UNIX, Windows NT and Sun Solaris environments with the Enterprise Backup Solution along with TruCluster support.

Software

HOW DO YOU GET THE SOFTWARE YOU NEED?

Compaq even makes it easy and convenient to obtain, install and support backup software. A live 60-day trial copy of your backup software is included with your solution. It's easy to install and use, and you're ready to go right out of the box; but you've still got time to evaluate software before you buy. Then when you're ready, you can purchase software quickly and easily through our software partners' global distribution networks. After that, just one call to Compaq provides installation and configuration support for both your hardware and software. Now that's making partnership work for you.

For more information on available software features, visit our partners' Web sites through www.compaq.com, or at www.legato.com, www.VERITAS.com and www.cai.com (for Computer Associates).

Non-Disruptive Backup Solutions

REPLACE DOWNTIME WITH PRODUCTION TIME

Today's enterprise generates a rapidly growing mountain of information. At the same time the amount of data increases, the job of ensuring its integrity becomes more complex. Not only must you plan and manage software and hardware from different vendors, but the available window for running a conventional backup is rapidly shrinking – any downtime at all is increasingly unacceptable.

A COMPLETE AND QUALIFIED INFRASTRUCTURE FOR NON-DISRUPTIVE BACKUPS. GAIN THE COMPETITIVE EDGE WITH 24x7 APPLICATION AVAILABILITY

- ➔ Create uncompromised availability for your business-critical applications
- ➔ Eliminate the restrictions of a shrinking backup window
- ➔ Simplify your backup planning and management
- ➔ Benefit from tested integration with third-party application and backup software
- ➔ Ensure end-to-end data protection at both the enterprise and departmental levels
- ➔ Protect your IT investment with a scalable and upgradable backup infrastructure
- ➔ Based on the award-winning StorageWorks Enterprise Backup Solution

efficiency – competitive advantages which translate directly into increased profits.

ENSURE 24x7 APPLICATION AVAILABILITY, EVEN DURING BACKUP

The enterprise that can maintain data integrity without impacting the robustness of their production systems has the competitive edge. And that edge is exactly what the Non-Disruptive Backup Solution for Windows NT gives you.

The Non-Disruptive Backup Solution for Windows NT offers end-to-end data protection while it optimizes the availability of your business production systems, around the clock and around the world.

This is a complete backup infrastructure – a fully qualified, characterized installation of hardware and software – which allows you to perform backups with minimal impact on the availability of your business production systems. At the same time, you will simplify the complex tasks of backup planning and administration.

With this Compaq NonStop eBusiness solution your enterprise will enjoy improved customer service and operational

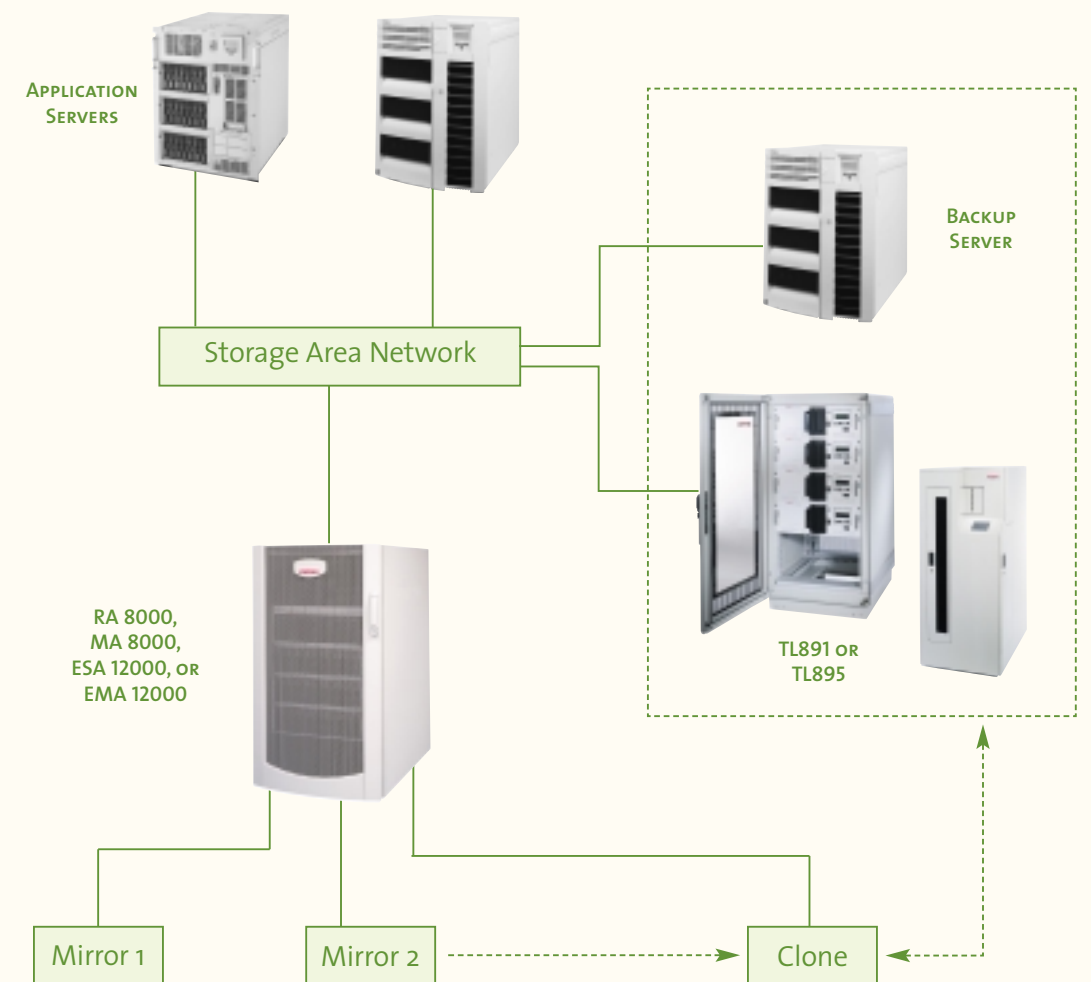
The Non-Disruptive Backup Solution is a fully integrated configuration of hardware, applications, backup software, and services that provide a complete backup infrastructure for both Storage Area Networks (SAN) and SCSI direct-attached secondary storage environments. Intended for users of Compaq StorageWorks MA 8000 and EMA 12000 subsystems, it provides a qualified, characterized backup solution resulting in an end-to-end data protection environment for both primary and secondary storage. The solution manages the snapshot and cloning features of the StorageWorks RAID array using the Compaq SANworks Enterprise Volume Manager, and includes customizable application and backup scripts for quick success.

Non-Disruptive Backup Solutions

In addition to being compatible with popular third-party backup software, the solution has been characterized with Oracle and Microsoft Exchange on Compaq ProLiant servers. It includes configuration and performance recommendations, so it can be deployed in a working environment quickly and easily. This gives businesses a reliable way to estimate the solution's behavior under actual conditions – which relieves much of the uncertainty about deploying and configuring a new storage infrastructure.

PRIMARY STORAGE	Compaq RA 8000 or Compaq ESA 12000
SECONDARY STORAGE	Compaq tape libraries: TL891, TL895, ESL9326D OR Compaq Enterprise Backup Solution (EBS): EBS for Departments, EBS for Data Centers
INTERCONNECTS	Direct-attached SCSI OR Fibre Channel: Dual loop or switched fabric
MANAGEMENT SOFTWARE	Compaq SANworks Enterprise Volume Manager Compaq Batch Scheduler
BACKUP SCRIPTS	Application Software: Oracle and Microsoft Exchange Backup software: Legato Networker, VERITAS Backup Exec, Computer Associates ArcServeIT
USABILITY INFORMATION	Best practices data including characterization, performance, and configuration information

Non-Disruptive Backup Solutions



A four step approach to

4 NonStop eBusiness

WHEN ASKED, "WHAT ARE YOUR CHANCES OF BUYING A PROPRIETARY STORAGE SOLUTION IF IT MEETS YOUR BUSINESS NEEDS?" LESS THAN 30% OF BUSINESSES SAID IT WAS LIKELY (ITCENTRIX, 12/99, STORAGE NETWORK SURVEY). IN OTHER WORDS, 70% OF TODAY'S BUSINESSES ARE LOOKING FOR AN OPEN SAN.

STEP ONE: THE ENSA BACKBONE

When, in 1999, Compaq introduced its vision of storage as a shared utility – via the Compaq Enterprise Network Storage Architecture (ENSA) – the concept seemed radical and futuristic.

However, Compaq is proving this is possible given time to develop the underlying storage technologies, network topologies and storage management software. And all through 1999 – as Compaq delivered products against the ENSA vision – both customers and industry watchers also began to see ENSA as the ideal backbone for development of the storage utility.

STEP TWO: GETTING PAST THE SAN DILEMMA

Fibre Channel technology can provide the speed and flexibility to improve data access over increasing distances. Multi-vendor storage systems – like *StorageWorks* – can support a myriad of server hosts and operating system environments. And a wide selection of interconnect devices and other components already exist to complete the SAN topology – the foundation of ENSA.

There's just one problem: There are no broad interoperability standards in place to ensure that Fibre Channel storage systems from different vendors can be managed on the same SAN. Customers are left with a "SAN per vendor" approach, which, clearly, the majority of users do not want.

STEP THREE: THE PROMISE OF THE OPEN SAN

The industry is looking forward to the day when an Open SAN will exist. That Open SAN will support any application, file and operating system, server platform, storage system, tape library, or SAN interconnect device – using published, open industry standards.

STEP FOUR: STORAGE AS A UTILITY

An Open SAN will allow for highly intelligent, centralized information management functionality – the very functionality that will enable the Enterprise Storage Utility, first envisioned by Compaq ENSA. Ultimately, the Storage Utility will present storage as an enterprise-wide, flexible, shared resource, analogous to a telephone service utility. This storage "pool" can be deployed anywhere in the enterprise, yet remain centrally managed and independent of computing systems and applications.

The industry is on its way to the "storage as a utility" concept; the first step is delivery of the Open SAN. With the *Compaq SANworks* family of unifying technologies and management tools, the Open SAN is that much closer to being a reality.

The SANworks business value

Business velocity for higher profitability

The very promise of an Open SAN – one that will support "any to any" and "many to many" connectivity – makes multi-vendor, open *StorageWorks* the ideal product line for the Open SAN solution. That is why Compaq is planning support for the Open SAN with both product lines, *StorageWorks* and *SANworks*, creating together the concept of Business Velocity.

SANworks Enterprise Storage Management Software

SANworks is a new breed of management software designed to maximize business velocity and SAN accessibility. Businesses have long looked to industry-leading *Compaq StorageWorks* products to build more flexible storage environments. Now, *StorageWorks* and *SANworks* solutions work together to deliver unprecedented storage agility for open SANs in the Internet age.

SANworks ENTERPRISE VOLUME MANAGER

This controller-based management tool with snapshot and clone-copy functions minimizes downtime during system backups and data migration. Parallel processing means that you can continue using your data while running a variety of background tasks (such as data mining or migration, backups, upgrades, testing or work distribution). So you needn't interrupt business to protect against data loss.

SANworks SECURE PATH

Available for Windows NT or Sun Solaris 2.0, *SANworks Secure Path* delivers high-availability in mission-critical environments by maintaining connectivity between the server and storage. *Secure Path* monitors I/O paths, generates alerts on significant events and moves storage sets between paths to allow continuous access to data and provide maximum I/O efficiency.

SANworks STORAGE RESOURCE MANAGER

SANworks Storage Resource Manager is a Web-based event management and reporting application that enables IT managers to detect trends, predict problems and balance resources via automated reports on the capacity, consumption and availability of network-based storage.

INCREASED CUSTOMER SERVICE LEVELS MEAN ENSURING DATA IS AVAILABLE WHENEVER NEEDED, AND THAT EVERY APPLICATION WILL RECEIVE DATA AS QUICKLY AS REQUIRED, EVEN UNDER ADVERSE CONDITIONS.

The backup lineup

TAKE A LOOK AT OUR ENTIRE
PRODUCT SPECTRUM, WITH
SOLUTIONS FOR ALL YOUR
ENVIRONMENTS AND ALL YOUR
BACKUP PRIORITIES.

Backup glossary

TYPES OF BACKUP

Backups are classified by the status of the network server (online or offline), when the backup takes place and by the amount of information that is backed up (full or partial, also referred to as differential, incremental or user-defined). Full, differential, incremental and partial backups can be used in either online or offline mode.

ONLINE BACKUP

An online backup takes place with the server online and available to users. A file may thus be open and not available for backup by some backup applications. There are applications that can protect open files, but if the file is changed while it is being backed up, then the file on tape may be different from the file on disk. The only sure way to protect open files is to use an open file manager available with Computer Associates ARCserve/T, VERITAS Backup Exec and Legato Networker.

OFFLINE BACKUP

For an offline backup, the system administrator's first step is to take the server offline, making it unavailable to users for the duration of the backup operation. The typical offline backup takes place when user demand is at its lowest.

FULL BACKUP

A complete backup. All files are copied.

DIFFERENTIAL BACKUP

Backs up only files changed since the last full backup. This type of backup is useful when it's important to have the latest version of each file. If the same tapes are used for consecutive differential backups, the newer versions of backed-up files are often allowed to overwrite older versions of the same file on the tape.

INCREMENTAL BACKUP

Backs up all files changed since the last backup, regardless of what kind of backup it was. This type of backup is used when each revision of a file must be maintained. If the same tapes are used for consecutive incremental backups, the newer versions of backed-up files are not allowed to overwrite earlier versions. Rather, the newer files are usually appended to the backup medium.

USER-DEFINED BACKUP

Copies a user-defined set of files.

PARTIAL BACKUP

There are three types of partial backup:







- ➔ **All applications – Saves all files in the area defined by the user, including settings, customizations, passwords, etc. Application backups are particularly useful after a major change or upgrade in software.**
- ➔ **Applications and data – Creates a stand-alone copy of the user's information base. Application and data backups allow easy restoration of the user's organization's records. These backups can also be used to migrate information to another server.**
- ➔ **Data only – May be segregated by project or department, or may include all information created within a certain time frame, or both. Clearly, the amount of backed-up information varies with the type of backup selected. This, in turn, directly affects the overall strategy in terms of capacity and transfer rate.**

PUSH AGENT

A Push Agent is defined as a software function that uses the remote server to process the file and directories to be backed up. This drastically reduces the processing required of the backup server and thus improves performance. If the database manager, such as SAP or Oracle, compresses the data as it is extracted and presented to the backup application push agent, even greater performance can be achieved for LAN backups.

The backup lineup

	PROLIANT ML330 <small>(PROLIANT 400 FAMILY)</small>	PROLIANT ML350 <small>(PROLIANT 800 FAMILY)</small>	PROLIANT ML370 <small>(PROLIANT 1600 FAMILY)</small>	PROLIANT DL380 <small>(PROLIANT 1800 FAMILY)</small>	PROLIANT ML530 <small>(PROLIANT 3000 FAMILY)</small>	PROLIANT ML570 <small>(PROLIANT 5000 FAMILY)</small>
						
4/8 SLR						
4/8 DAT						
12/24 DAT						
20/40 DAT						
12/24 DAT AUTO LOADER						
AIT 35						
AIT 50						
20/40 DLT						
35/70 DLT						
TL881						
SSL2020TL						
TL891						
TL895						
ESL9326D						
EBS FOR WORKGROUPS						
EBS FOR DEPARTMENTS						
EBS FOR DATA CENTERS						

	PROLIANT DL580 <small>(PROLIANT 6000 FAMILY)</small>	PROLIANT 8000	ALPHASERVER 1200	ALPHASERVER 4100	ALPHASERVER DS10/DS20	ALPHASERVER GS60/GS140
						

For more **information**

CONTACT YOUR COMPAQ AUTHORIZED RESELLER

web site: www.compaq.com/storage

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COMPAQ

