Overview

HP StorageWorks Direct Backup Engine for Tape Libraries
Extended Tape Library Architecture (ETLA) Family

The HP StorageWorks Direct Backup Engine software advanced feature option provides increased performance and lower costs in backup environments by reducing server resource loading and optimizing backup data transfer capability. As a component of HP StorageWorks Command View ESL, it provides centralized, web-based management for HP ESL9000 and ESL E-Series enterprise class tape libraries, increases performance of tape libraries in the SAN.

HP Direct Backup Engine introduces a server-less backup solution and allows system administrators to design backup SAN environments for increased data throughput between disk array and tape device and decreased server utilization. HP offers a balanced solution - neither piece-meal nor monolithic - that includes a generous initial feature set and allows users to buy only the advanced options they need.

HP Direct Backup Engine is the next step in HP's Command View ESL software suite and HP's Enterprise Tape Library Architecture (ETLA), itself a key component of the HP ENSAextended and HP Adaptive Infrastructure strategy. This architecture delivers tape libraries that are self-aware - self-managed, automatically maintained, continuously available - and network-aware - resilient, secure, and adaptable. HP's high-end tape libraries provide the reliability, interoperability, and advanced functionality required for your enterprise SAN environment.

Models

HP StorageWorks Direct Backup Engine for Tape Libraries	Permanent License for Direct Backup Engine ESL **NOTE:** Permanent license to use for base software platform. Order 1 per ESL 9000 or ESL E-Series drive. **NOTE:** Requires Command View ESL	343375-B21
	Permanent License for Command View for ESL **NOTE:** Permanent license to use for base software platform. Order 1 per ESL 9000 or ESL E-Series library.	343374-B21

What's New

- Increase speed and uptime with server-less Direct Backup Engine option. The Direct Backup Engine and Command View ESL go beyond basic protocol-level support to deliver one-step configuration and certified hardware/software solutions.

Key Features

- Web-based configuration allows ease-of-use in SAN design
- Reduce wasted server resources and CPU cycles by moving data directly from disk to tape
- High SAN availability since management traffic stays out of the data path.
- Integration with major enterprise management applications.
- Fast backups and high uptime with server-less backup solution

Customer Benefits

- Decreases both costs and administrative work through increase performance and reduced server resource requirements.
- Delivers best-in-class interoperability without "special" work-arounds. It will work in your environment.
- Flexible configuration allows configuration of only required devices. You don't pay for what you don't need!
- Eliminates backup server and LAN bottlenecks by allowing data to move directly from disk to tape under the control of your backup application - but without application server overload.
- Provides investment protection by enabling an easy upgrade path as interface technologies change.

Software Features/Functionality

Direct Backup Engine for Tape Libraries Advanced Feature	• Configure drives to be used with Direct Backup Engine for ESL

Command View for Tape Libraries: Web Interface Features	• Select from a list of multiple supported libraries to manage • View asset information for the library system • View health summaries for all components of the library system: drives, robotics, Interface Controllers, and Interface Manager • View library inventory: slots, media, and drives • Search for media by barcode label • View details on drives, robotics, Interface Controllers, and Interface Manager, including WWNs, speeds, and connection types • Automatically discover hosts and HBAs on the SAN or add your own for access control and security purposes • Upgrade firmware on the Interface Controllers and Interface Manager cards • Configure IP network parameters for the management station and Interface Manager cards in each library • Configure SNMP trap/event destinations to receive alerts asynchronously • View persistent event logs for the library system

Software Pre-Requisites

OS supported	**Management station:** • Microsoft® Windows® 2000 Professional • Microsoft® Windows® 2000 Server edition SP3 • Microsoft® Windows® 2000 Windows XP Professional • Microsoft® Windows® 2000 Windows Server 2003

Client Browsers supported	• Microsoft Internet Explorer v6.0 SP1 or later, or Netscape Navigator 6.2 or later. • Make sure that Java support is enabled in the browser. • Java Runtime Environment (JRE) plug-in v1.4 or later from Sun Microsystems.

Software Licensing	• Command View for Tape Libraries Permanent License required, licensed per library • Secure Manager for Tape Libraries enhanced functionality, licensed per library

Hardware Features

Product Highlights

Hardware Pre-Requisites

Management Station (provided separately by user)

- Pentium III 700 MHz, 256 MB RAM
- 10/100 Base-T network card (a static IP address is recommended)
- Operating system, browsers, and JRE plug-in requirements described above

Distribution Media

Available via CD-ROM and online from: http://www.hp.com/support/cvesl

Documentation

- HP StorageWorks Interface Manager and Command View for Tape Libraries Installation and User Guides provided
- "Online Help" provided within Command View for Tape Libraries software interface at: http://www.hp.com/go/automated

Hardware Support

The Extended Tape Library Architecture, Interface Manager card, and Command View for Tape Libraries software support single and two unit frames connected via the pass through mechanism. In addition, HP StorageWorks ESL 712e, 630e, ESL9322, ESL9595, ESL9198 and ESL9326 Tape Libraries are supported. All drive, media, slot, and other component configurations shown below are supported:

Supported Hardware	Model Description
HP StorageWorks ESL E-Series Tape Libraries	ESL712e Enterprise Tape Library
	ESL630e Enterprise Tape Library
HP StorageWorks ESL9000 Tape Libraries	ESL9322 Enterprise Tape Library
	ESL9595 Enterprise Tape Library
	ESL9326 Enterprise Tape Library
	ESL9198 Enterprise Tape Library

Service and Support, HP Care Pack, and Warranty Information

Warranty
HP provides a one-year, limited warranty, together with phone support for the duration of the warranty. In order to provide ease of installation and maximize uptime and ROI, HP provides a range of upgradeable service options.

Warranty Upgrade Services

Description	Band for library	Band for library	Band for drive upgrade kits	Installation Band	Order Number
Direct Backup for Tape Libraries Installation into a SAN (Per Drive)	N/A	N/A	N/A	5J5	HA113A1
Tape Library Installation And Start Up	N/A	N/A	N/A		HA1141A1

Additional Services & Warranty Information
Due to the complexities involved with the initial installation of an enterprise Library into a SAN environment, Hewlett-Packard recommends that customers take advantage of the SAN Implementation Service (HA114A1). This service covers pre-installation preparation activities, installation and configuration of the library and Interface Controllers, configuration of hosts and switches, verification testing and customer orientation.

In order to maximize ROI and product uptime, and minimize the cost of ownership, Hewlett-Packard recommends the 3-year, 24 x 7 service options. These offerings will ensure that any product issues can be tackled when they occur – most backup issues will occur outside standard business hours – and that the service coverage period covers the minimum expected life of the host system.

For more information on HP storage services please visit http://www.hp.com/hps/storage/

Configuration Information

HP StorageWorks Extended Tape Library Architecture tightly integrates modular hardware and software components for maximum flexibility. Depending on a user's need and current configuration, three methods exist to upgrade to the Extended Tape Library Architecture:

1. Current ESL9198, ESL9326, ESL9322 and ESL9595 users with an existing ESL card cage and either E2400 or E2400-160 Fibre Channel Interface Controllers require only Product numbers 343373-B21 "ESL Interface Manager Upgrade kit" and 343374-B21 "Permanent license to use for Command View for ESL".
2. Current ESL9198, ESL9326, ESL9322 and ESL9595 users with direct-attach SCSI tape drives who want to move to Fibre Channel / SAN environments should choose Product number 343372-B21 "ESL Interface Manager, card cage, and Command View ESL software" and 343374-B21 "Permanent License for Command View ESL".

In all cases, HP StorageWorks Secure Manager for Tape Libraries and Direct Backup Engine for Tape Libraries, listed under Step 2 - Additional Options, below, are recommended depending on a user's configuration. Slot, drive, load port, and Interface Controller components are also listed below for convenience.

Step 1: Customers needing a new ESL Library - Base Configuration

Select one:

	Model Description	Product Number
HP StorageWorks ESL E-Series	ESL E-Series 712e **NOTE:** ESL712e zero drive library, 712 LTO slots, card cage, Interface Manager card, one drive cluster.	AA934A
	ESL E-Series 630e **NOTE:** ESL630e zero drive library, 630 SDLT slots, card cage, Interface Manager card, one drive cluster.	AA935A
	ESL E-Series 322e **NOTE:** ESL322e zero drive library, 322 LTO slots, card cage, Interface Manager card, one drive cluster.	AA939A
	ESL E-Series 286e **NOTE:** ESL286e zero drive library, 286 SDLT slots, card cage, Interface Manager card, one drive cluster.	AA940A

Configuration Information

Step 2: Select needed slots, drives, load port, and Interface Controller components

ESL E-Series	ESL E-Series Drive Cluster	AA938A
	ESL E-Series Ultrium 460 Drive Upgrade Kit	AA937A
	ESL E-Series Ultrium 460-FC Drive Upgrade Kit	AA941A
	ESL E-Series Ultrium 960-FC Drive Upgrade Kit	AD595A
	ESL E-Series SDLT 320 Drive Upgrade Kit	AA936A
	ESL E-Series SDLT 600 Drive Upgrade Kit	AA946A
	ESL E-Series e2400-FC 2G Interface Controller	AA928A
	ESL E-Series e2400-160 FC Interface Controller	AA960A
	Command View ESL	343374-B21
ESL9000	ESL9000 E2400-160 FC Interface Controller	330839-B21
	ESL9000 222 to 322 slot upgrade kit	330840-B21
	ESL9595 400 to 500 slot upgrade	330842-B21
	ESL9595 500 to 595 slot upgrade	330842-B22
	ESL9595 400 to 595 slot upgrade	330842-B23
	ESL9000 Ultrium 460 Drive	330834-B21
	ESL9000 SDLT 600 Drive	AD550A
	ESL9000 Ultrium 230 Drive	301930-B21
	ESL9000 SDLT 320 Drive	293414-B21
	ESL9000 Universal load port magazine	302254-B21

Step 3: Additional Options

Select each required option with quantities specified:

	Model Description	**Product Number**
Software	Permanent License for Direct Backup Engine for ESL	343375-B21
	NOTE: Permanent license to use for base software platform. Order 1 per drive.	
	Permanent License for Secure Manager for ESL	343376-B21
	NOTE: Permanent license to use for base software platform. Order 1 per library.	
HP ESL9000 ETLA upgrade kits	For upgrade information on the ESL 9000 libraries, please visit: http://www.hp.com/go.automation then to ESL90000Family QuickSpecs.	

Configuration Information

Step 1: Customers with installed HP StorageWorks ESL9322 and ESL9595 libraries

Select one:

	Model Description	Product Number
Interface	ESL Interface Manager	343372-B21
	NOTE: For installed libraries without a card cage. Includes Interface Manager card, card cage, and 60-day trial Command View for ESL software. For new ESL libraries, or non-fibre ESL's.	
	ESL Interface Manager Upgrade Kit	343373-B21
	NOTE: For installed libraries with an existing card cage. Includes Interface Manager upgrade kit for ESL, with 60-day trial Command View for ESL software. For current ESL's with a card cage.	

Step 2: Add Software License

Software	Permanent License for Command View for ESL	343374-B21
	NOTE: Permanent license to use for base software platform. Order 1 per library	

Step 3: Additional Options

Select each required option with quantities specified:

	Model Description	Product Number
Software	Permanent License for Direct Backup Engine for ESL	343375-B21
	NOTE: Permanent license to use for base software platform. Order 1 per drive.	
	Permanent License for Secure Manager for ESL	343376-B21
	NOTE: Permanent license to use for base software platform. Order 1 per library.	
HP ESL9000 ETLA upgrade kits	For upgrade information on the ESL 9000 libraries, please visit: http://www.hp.com/go.automation then to ESL90000Family QuickSpecs.	