

Features/Functionality

Extended Tape Library Architecture (ETLA) Family

HP StorageWorks Command View for Tape Libraries (TL) Software is an important building block in HP's Extended Tape Library Architecture (ETLA), which provides the foundation for improved backup reliability and simplified management of your HP enterprise tape libraries, while making them a more resilient, secure, and adaptable part of your SAN. HP Command View TL lets you manage multiple HP EML and ESL E-Series tape libraries and HP Virtual Library Systems from a single easy-to-use application. Its intuitive graphical interface makes even the most complex library management tasks easy to understand. Contrast this with other enterprise tape libraries that use a collection of unconnected utilities to monitor and manage the system. With Command View TL, you can manage your tape libraries - check drive status, receive trouble alerts, diagnose problems, and much more - through a simple browser interface from anywhere in the world.

Set up and configure your tape library in the SAN in less than two hours with Command View TL's configuration wizards and graphical interface. Command View TL makes configuring and upgrading your library easy:

- Establish backup security
- Configure new tape drives and slots after a library upgrade
- Move tape drive access between servers
- Upgrade controller and tape drive firmware

Day-to-day management tasks are also easier with Command View TL. Log in locally or remotely to:

- Check activity logs
- Monitor the health of tape drives and media
- Move or eject data cartridges
- View alerts to stay informed about potential problems in the library and SAN
- Identify and resolve problems with the library and the SAN
- Print detailed support tickets that will help diagnose and fix problems quickly

Command View TL and the library Interface Manager make your HP E-Series tape library self-aware and network-aware. These self-managing libraries improve backup job reliability, cut down on your administrative overhead and provide you data protection that is secure, adaptable, and resilient.

Secure Manager for Tape Libraries

HP StorageWorks Secure Manager for Tape Libraries (TL) is an optional module for Command View TL that provides an additional level of security that lets you control access to the tape library by authorizing specific servers to access the library's drives and robotics. Secure Manager TL increases backup reliability by blocking disruptive traffic from unauthorized hosts to the library, which is one of the main causes of failed or incomplete backups.

Secure Manager TL enables you to establish up to six logical partitions in a single physical library. Partitions can be used to accommodate different backup applications, tape technologies or separate SANs, isolate departmental systems from each other, or create separate storage systems for any other reason. Each logical partition appears to its authorized servers as a complete physical tape library.

Because Secure Manager TL is part of Command View TL, it uses the same graphical user interface to make it easy to set up and view access privileges and partitions.

Models

HP StorageWorks
Command View for Tape
Libraries Software

Permanent License for Command View for Tape Libraries Software for ESL
NOTE: Permanent license to use for base software platform. Order 1 per library.
Used for the ESL E-Series

343374-B21



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(Command View TL)	Permanent License for Command View for Tape Libraries Software for EML E-Series NOTE: Permanent license to use for base software platform. Order 1 per EML E-Series library.	T3663A
HP StorageWorks Secure Manager for Tape Libraries (Secure Manager TL)	Permanent License for Secure Manager for Tape Libraries Software for ESL NOTE: Requires permanent license to use for base software platform (HP Command View TL for ESL). Order 1 per ESL E-Series library.	343376-B21
	Permanent License for Secure Manager for Tape Libraries Software for EML NOTE: Requires permanent license to use for base software platform (HP Command View TL for EML). Order 1 per EML E-Series library.	T3664A

What's New

Major new release of Command View TL 2.5 software for the both the ESL E-Series and EML E-Series (not supported on the ESL 9000) that includes the following enhancements:

- TapeAssure: Advanced management of drive and media health, utilization, lifecycle, performance monitoring and tracking on HP EML and ESL E-Series tape libraries
- Supports IPv6 or a dual-stack (IPv4 and IPv6) combination. EML has received IPv6 Ready Logo Phase-1 certification and ESL E-Series has received IPv6 Ready Logo Phase-2 certification. See <http://www.ipv6ready.org> for more information.
- The Interface Manager can synchronize its time with Network Time Protocol (NTP) servers
- Tape drives can be rebooted through the GUI and CLI
- The drive description in the Health summary indicates when the drive needs cleaning
- The inventory page displays media properties, including vendor, format, capacity, write protected, WORM, and encryption
- Identifies hosts that are mapped to devices that have non-contiguous LUNs for drives behind interface controllers
- Allows removal of hosts from Secure Manager through the CLI
- The GUI launcher panel indicates the number of browser sessions logged into Command View TL
- The GUI support tab includes a link to the online Guided Troubleshooting tool
- Wizard to assist in replacing an LTO2 or LTO3 tape drive with an LTO4 tape drive
- Supports SSH/SFTP clients
- Status icons are included for each library on the launcher panel
- Host/HBA filtering can be done from Secure Manager dialogs
- Drive health alerts are enhanced
- Secure Manager operations process faster
- Configuration files from up to two previous versions can be restored

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Key Features

- TapeAssure: Advanced management of drive and media health, utilization, lifecycle, performance monitoring and tracking on HP EML and ESL E-Series tape libraries
- Simple, web-based device and host configuration capability between library components: robotics, drives, and interface controllers
- Complete remote manageability for HP EML and ESL E-Series tape libraries and HP Virtual Library Systems in SANs -- monitor and manage multiple libraries from any network location
- Automated setup and configuration of tape libraries in SANs -- no need to set up each Fibre Channel interface controller separately
- Automation of complex and repetitive library system management tasks
- Advanced device-level access control via Secure Manager option to prevent unauthorized servers from interrupting critical backup jobs
- Better SAN performance because management traffic stays out of the data path
- Integration with leading enterprise management applications including HP Storage Essentials through SMI-S
- Single server support to run both Command View TL and Command View EVA (separate applications) on the same server.
- Worldwide name retention support on interface controllers for the ESL or EML - replacement interface controllers can automatically download the existing maps from the old controller without the need to reconfigure and start from scratch.

Customer Benefits

- **Experience better backup reliability:** Prevent rogue servers and SAN events from disrupting your backups with Secure Manager TL's access control. Eliminating such disruptions improves backup performance and can reduce the number of backup failures by up to 90%.
- **Simplify the management of your libraries:** Save time by performing all your daily management and troubleshooting tasks with a single program, Command View for Tape Libraries, which can be accessed from anywhere via a browser interface. Command View TL's GUI and parallel download capabilities make managing your library faster and easier.
- **Reduce the complexity of installation and upgrades:** Use step-by-step wizards to simplify the process of setup and configuration. Command View TL's graphical interface will present a clear picture of your tape library configuration, making it easy to set up security, assign servers to backup devices, add library upgrades, and upgrade library firmware when necessary.
- **Keep your data secure from unauthorized access:** Define exactly which servers can access which tape drives and cartridges in the library with Secure Manager TL's simple tools. Without access protection, your data may be at risk from unauthorized servers in your rapidly changing SAN environment.
- **Use one tape library to accommodate different requirements:** Divide your tape library into up to six logical partitions to support different backup applications, multiple tape formats, or separate departmental requirements with Secure Manager TL. Save money by consolidating your storage into a single library while providing what appears to your users as multiple dedicated physical libraries.
- **Manage your SAN dynamically:** Configure new servers on the SAN into your tape library automatically, without having to reboot the interface controller. Add additional slots and tape drives to partitions without having to recreate from scratch.
- **Improve the security of your library:** Role-based security allows you to establish different levels of security access to Command View TL (administrator, operator, guest and service accounts).
- **Upgrade easily to future library enhancements:** Protect your investment in your chosen library platform with an easy upgrade path as interface technologies change.

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Extended Tape Library Architecture (ETLA)

The HP StorageWorks Extended Tape Library Architecture (ETLA) is designed to save you time and money by improving backup reliability and simplifying the setup, configuration, management, and troubleshooting of your enterprise tape libraries. HP builds intelligence and manageability into every HP E-Series tape library through the Interface Manager, a processor that serves as the control center for ETLA. The Interface Manager hosts library services that make the library self-aware and network-aware, able to monitor the whole environment and alert you to problems in the library or on the SAN before they threaten the security of your data. Interface controllers provide an extra layer of intelligence between the library and the SAN to handle access conflicts and shield the library from unrelated SAN events. ETLA isolates the tape library from the SAN infrastructure, so when you make a change to your SAN infrastructure, such as adding a new switch or HBA, no changes are required on the tape library.

With ETLA, you can log onto HP StorageWorks Command View for Tape Libraries (TL) Software from anywhere on the network - from across the room or across the globe - to monitor and manage your HP tape libraries. Unlike other tape libraries that require different utilities for different aspects of library management, Command View TL provides a simple graphical interface for managing all facets of your HP E-Series tape libraries, from initial setup to daily management to resolving a potential problem.

Secure Manager for Tape Libraries (TL), an optional software module that works within Command View TL, further improves your library's security and manageability, giving you an easy way of controlling access to tape library devices and setting up partitions. You will experience fewer backup failures as Secure Manager TL blocks disruptive traffic from unauthorized hosts. Divide a single E-Series library into up to six partitions to support separate and secure departmental systems, multiple backup applications, or different tape technologies.

The bottom line is that ETLA increases the reliability and manageability of your tape libraries. As a key component of HP's Adaptive Infrastructure strategy, ETLA ensures that your HP E-Series tape library can easily scale up as needed and adapt smoothly to changes in your SAN environment.

TapeAssure

HP StorageWorks TapeAssure makes managing, optimizing and archiving on the HP EML and ESL E-Series libraries faster and easier. TapeAssure provides comprehensive summaries and detailed information about the status, performance, utilization, and health of all tape drives and media for every HP enterprise library in the SAN. This data can be exported on demand or at scheduled times to a comma-separated-value (CSV) file for analysis with spreadsheet programs or custom scripts.

TapeAssure utilization and performance reporting features allow you to optimize your existing HP Enterprise libraries and enables you to make intelligent purchasing decisions with utilization and performance data for all your drives and media:

- Modify backup schedules based on drive utilization and performance reports
- Trend drive usage across the life of the drive
- Predict and prevent failures with long-term history of drive, and media statistics
- Determine if the drive is experiencing a high (or low) rate of usage
- View the average read/write compression ratios for every load/unload cycle

TapeAssure health reports and alerts give you peace of mind knowing the condition of the drives and the reliability of the data on each tape. TapeAssure monitors every backup to ensure the highest standards of reliability, sends alerts when these standards are not met, and ensures that the drives and media used in an archive environment always have the highest integrity.

TapeAssure creates a database history of drive and media information that you can export into a .CSV format and import into Excel or other tools to create pivot-charts, pie charts and bar charts for any

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business presentation. This data can be automatically exported on a schedule or on demand. And you can write data to a local or network drive where analysis scripts can run.

TapeAssure real time alerts notify customers instantly when drive and media standards are not being achieved:

- In-depth analysis pinpoints if drive or media characteristics fall below HP backup and archiving standards
- View alerts and statistics is real-time in the Command View TL GUI
- Alerts can be sent to SAN monitoring tools like HP Storage Essentials

NOTE: TapeAssure features require that certain minimum library and server requirements be met. EML and ESL E-Series tape libraries shipped before November 2007 may require a RAM upgrade in order to be TapeAssure capable. Also, the Command View TL (Windows) management station requires a minimum 1.6-GHz CPU and 1-GB or RAM. Additional details are provided in the Command View TL CD kit, the Command View TL Version 2.5 User Guide, and directly on the TapeAssure Overview screen in the Command View TL software.

Command View TL Functions

- View asset information for the selected library system
- View health summaries for all components of the library system: drives, robotics, interface controllers, and the Interface Manager. Advanced tape and media diagnostics also provide health check margin analysis.
- View library inventory: slots, media, and drives
- Search for media by barcode label
- View details on drives, robotics, interface controllers, and Interface Manager, including worldwide names, speeds, and connection types
- Configure hosts, HBA-to-drive mapping and masking settings with Secure Manager Tape Library Software
- Automatically configure new SAN servers to the tape library without having to reboot the interface controller
- Upgrade firmware on the tape drives, interface controller and Interface Manager cards. Parallel firmware downloads provide for exceptionally fast performance.
- 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, where event filtering makes fault detection easier.

HP Secure Manager TL Functions

- Automatically discover hosts and HBAs on the SAN or add your own for access control and security purposes
- Configure hosts and HBA-to-drive mapping and masking settings
- View host-to-library connectivity authorized by secure manager
- Configure up to six library partitions per tape library
 - Set up mixed media-partitioning, allowing the library to support multiple drive and media types
 - Enable two or more applications to share one library
 - Support more than one SAN with a single E-Series tape library

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Software Licensing

- A 60-day, instant-on trial license for Command View TL is included with all HP E-Series tape libraries.
- A permanent license for Command View for Tape Libraries Software for ESL is required for the ESL E-Series (one license per library).
- A permanent license for Command View for Tape Libraries Software for EML is required for the EML E-Series (one license per library).
- A permanent license for Secure Manager for Tape Libraries Software for ESL or EML E-Series is an optional, but highly recommended, module that provides enhanced device-level security and partitioning capabilities (one license per library).

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 Software Installation and User Guides provided
- "Online Help" provided within Command View TL interface at: <http://www.hp.com/go/automated>

Software and Hardware Supported

Supported Software

Operating systems supported

Management station:

- Microsoft® Windows® 2000 Professional
- Microsoft® Windows® 2000 Server edition SP3
- Microsoft® Windows® Windows XP Professional
- Microsoft® Windows® Windows Server 2003

Client browsers supported

- Microsoft Internet Explorer v6.0 SP1 or later, or Netscape Navigator 6.2 or later (Java support must be enabled in the browser)
- An Internet connection is recommended for Command View TL to receive firmware and software release information automatically from the HP support website.
- Java Runtime Environment (JRE) plug-in v1.4 or later from Sun Microsystems

Hardware Prerequisites

Management station (provided separately by user)

- Pentium III 500 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

Supported Tape Libraries

Command View for Tape Libraries supports single-frame EML and ESL E-Series tape libraries and multiple-frame ESL tape libraries connected via the Cross Link Kit.

Supported Hardware

HP StorageWorks EML E-Series Tape Libraries

Model Description

EML 103e Tape Library

EML 245e Tape Library

Other EML E-Series configurations

HP StorageWorks ESL E-Series Tape Libraries

ESL712e Tape Library

ESL322e Tape Library

Service and Support, HP Care Pack and Warranty Information

Warranty

HP Care Pack Services offer upgraded service levels to extend and expand your standard product warranty with easy to buy, easy to use support packages that help you make the most of your hardware and software investments. They let you choose the support levels that meet your business requirements, from basic to mission-critical. They help you contain total cost of ownership.

HP Care Pack warranty extensions can be purchased along with HP products to cost-effectively upgrade or extend your warranty. For many products, post-warranty HP Care Pack Services are available when your original warranty has expired.

Why purchase an HP Care Pack service?

Your standard warranty protects against product defects. HP Care Pack Services help you guard against unplanned downtime, which can reduce your productivity and profitability. These convenient service packages:

- Protect your investment in HP products
- Provide consistent, predictable levels of support across your entire department or business
- Ease budget planning with fixed-cost support that includes parts and labor
- Give you direct access to proven technical and problem-solving expertise
- Offer a choice of response-time and repair-time commitments
- Deliver prompt, measurable results
- Are available whenever and wherever you do business

HP Care Pack availability may vary by country and product.

Supporting your Adaptive Enterprise journey

HP Services helps you make the Adaptive Enterprise real for your organization. The breadth, depth, and quality of HP hardware and software support services can help you improve the performance of your IT support processes and resolve the complex software and hardware problems that tax user productivity. HP Care Pack services help you increase IT environment stability, efficiency, and agility from the desktop to the data center, and improve the productivity of your employees.

Warranty and Services Included with the Product HP warrants only that the Software media will be free of physical defects for a period of ninety (90) days from delivery.

For more information about HP's Global Limited Warranty and Technical Support, visit ftp://ftp.compaq.com/pub/products/storageworks/warranty/EN_321708-008.pdf

Recommended Services Software Installation and Start Up Service

- Cost-effectively obtain specialized expertise for a complex, one-time task
- Enjoy top performance right from the start
- Shorten your time-to-ROI

Three years of HP Software Support 24 x 7

- Improve the productivity of system managers and operators
- Improve system performance and reduce downtime due to software defects
- Expedite problem resolution through expert-level technical resources

Service and Support, HP Care Pack and Warranty Information

- Enjoy consistent service coverage across geographically dispersed sites
- Update HP and selected third-party software at a predictable cost
- Take advantage of subscription savings on software updates
- Keep your license compliancy up-to-date

Available HP Care Pack Services

Extend your product warranty with a wide choice of cost-saving support packages.

HP Care Pack Services are sold by HP and HP authorized enterprise and commercial resellers. Services for customers purchasing via direct and enterprise resellers are quoted using HP order configuration tools. Additional information about HP Care Pack Service features and benefits is available at <http://www.hp.com/hps/carepack/services/>.

For more information about Deployment and Per Event Services for HP Storage, visit <http://www.hp.com/hps/storage/>.

Warranty Upgrade Services

Order Number Description

Installation of Command View for Tape Libraries Software for ESL or EML into a SAN (per library)

Band for
ESL E-Series
library

Band for EML E-Series
library

HA113A1#5J5

HA113A1#5J5

Installation of Secure Manager for Tape Libraries Software for ESL or EML E-Series into a SAN (per library)

HA113A1#5J5

HA113A1#5J5

Tape Library Installation and Startup (SAN Implementation Service)

HA114A1#5DQ

HA114A1#5KF

SW, 1-year, Phone-in, 9x5

HA106A1#8FC

HA106A1#8XL

SW, 3-year, Phone-in, 9x5

HA106A3#8FC

HA106A3#8XL

SW, 1-year, Phone-in, 24x7

HA107A1#8FC

HA107A1#8XL

SW, 3-year, Phone-in, 24x7

HA107A3#8FC

HA107A3#8XL

Support Plus, 3-year

HA109A3#8FC

HA109A3#8XL

Support Plus 24x7, 3-year

HA110A3#8FC

HA110A3#8XL

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.

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. Command View for Tape Libraries is required for all EML and ESL E-Series Tape Libraries. HP StorageWorks Secure Manager for Tape Libraries Software is recommended to increase the security of backup data and increase backup reliability.

Step 1: Choose your tape library and hardware options

	Model Description
HP StorageWorks ESL E-Series	<ul style="list-style-type: none">• ESL E-Series 712e• ESL E-Series 322e
HP StorageWorks EML E-Series	<ul style="list-style-type: none">• EML E-Series 505e• EML E-Series 469e• EML E-Series 442e• EML E-Series 375e• EML E-Series 348e• EML E-Series 245e• EML E-Series 103e• EML E-Series 71e

NOTE: Command View TL and Secure Manager TL support any configuration of the EML E-Series and ESL E-Series, including multi-frame ESL configurations.

Step 2: Add Command View for Tape Libraries (required)

	Model Description	Product Number
For ESL E-Series libraries	Command View for Tape Libraries Software for ESL NOTE: Permanent license to use. Order 1 per library.	343374-B21
For EML E-Series libraries	Command View for Tape Libraries Software for EML NOTE: Permanent license to use. Order 1 per library.	T3663A

Step 3: Add Secure Manager for Tape Libraries (optional)

	Model Description	Product Number
For ESL E-Series libraries	Permanent License for Secure Manager Tape Library Software for ESL NOTE: Permanent license to use for base software platform. Order 1 per library.	343376-B21
For EML E-Series libraries	Permanent License for Secure Manager Tape Library Software for EML NOTE: Permanent license to use for base software platform. Order 1 per library.	T3664A

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