

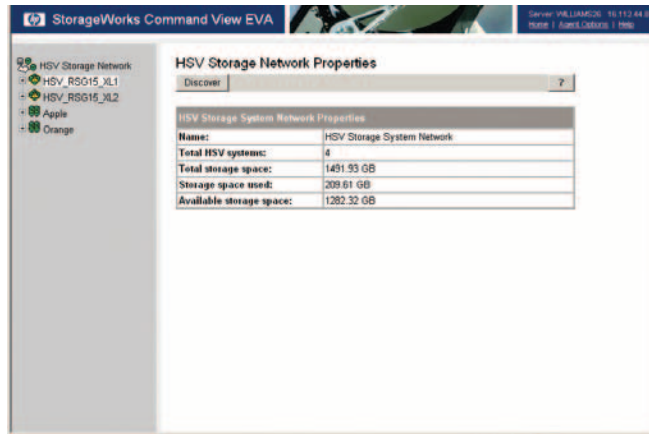
# HP StorageWorks Enterprise Virtual Array

## (EVA) software

Data sheet



With HP StorageWorks EVA software and disaster tolerant solutions, you can rest easy knowing that your system availability will not be impacted if the weather, system glitches or human error disrupt your infrastructure. HP software solutions help you ensure always-on availability for your mission-critical environments, simplify your storage management activities, automate backups and snapclones, as well as better utilize your IT staff and resources.



## Device and configuration management software

### HP StorageWorks Command View EVA

HP StorageWorks Command View EVA is a comprehensive software suite designed to simplify, enhance and maximize the high performance HP StorageWorks EVA family of storage array products. It provides a powerfully simple storage management experience when compared to traditional storage array management approaches.

Think of HP StorageWorks Command View EVA as providing simplicity without compromise as it complements the HP StorageWorks EVA user. It offers storage administrators a single storage management solution for all of your EVA management needs. It automates and aggregates storage management so you have fewer steps to think about and fewer things to manage. Growing capacity is also simple, as you can easily and dynamically expand LUNs and add physical drives online to quickly meet changing business need without the chaos of application downtime. Lower your management costs further, with easy and fast configuration of LUNs and RAID groups. For mission critical applications, you can take advantage of proactive remote services using the HP Instant Support Enterprise Edition and HP Solutions support to ensure 24x7 EVA uptime.

### Features and benefits

- *Provides simplicity without compromise*—The Command View EVA software suite and high performance EVA family of products automates and aggregates array storage with fewer steps and fewer things to manage to simplify your array storage administration experiences versus traditional array approaches. With Command View EVA software, you can easily and dynamically expand LUNs online, instantly configure LUNs and RAID groups and add physical disks online with just a few keystrokes.
- *Easily and quickly provisions storage and instantly replicate data*—Instantly provision logical virtual disks from the available pool of storage simplifies tiered storage applications by allowing you to mix and match low and high performance disk drives for maximum investment protection and cost efficiencies. Adding just the right amount of capacity to meet business demands is a snap with Command View EVA software, you can easily and efficiently create snapshots and quickly create remote mirrors for fast data replication, all without compromising application downtime.
- *Features proactive remote support*—Command View EVA software supports proactive remote support sometimes called phone home. With HP Instant Support Enterprise Edition (ISEE), EVA events in the storage area networks (SAN) are immediately identified and mapped through proactive, continual automatic discovery and notification of events 24x7 to the HP Solutions Center to ensure maximum availability and health of the array storage system.
- *Offers performance monitoring*—With HP StorageWorks Command View EVAPerf, you can analyze EVA performance metrics including host connection, port status, host port statistics, storage cell, physical disks, virtual disks

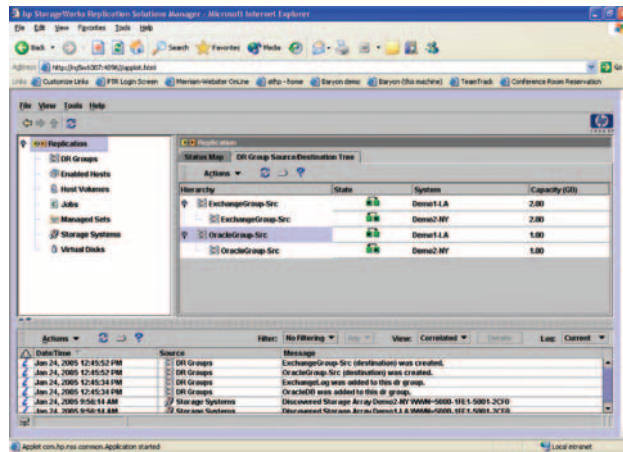
# Think of HP StorageWorks Command View EVA as providing simplicity without compromise as it complements the HP StorageWorks EVA user. It offers storage administrators a single storage management solution for all of your EVA management needs.

and replication metrics and display them graphically using Microsoft® Windows® PerfMon. You can perform real-time analysis and collect historical performance data allowing you to identify performance bottlenecks and keep applications running at optimized performance.

- *Provides flexible management for Microsoft Windows deployment*—You can control EVA management from a single console, increasing productivity and responsiveness of the IT administrative staff. The Command View EVA software suite supports a variety of Windows deployment options including: running the software to manage EVA directly on a Windows server for host-based management deployment, on an HP OpenView Storage Management Appliance, and/or on an HP ProLiant storage server. You can now also directly connect a Windows server via fibre channel (FC) to an EVA for lower cost FC solutions.
- *Complies with standards*—HP is a primary driver and contributor to the Storage Management Interface Specification (SMI-S). Command View EVA supports the SMI-S standard known as SMI-S 1.0.2. Adherence to standards simplifies storage management and facilitates an environment where vendors and end users will adopt storage-networking technology faster and build larger, more powerful networks that coexist, interoperate and work better together.
- *Features LUN security*—Provides protection against unauthorized access to specific volumes (LUNs) and the

LUN security is totally transparent to the servers, operating systems and applications. It eliminates the need to use precious host cycles to constantly monitor authorization.

- *Offers comprehensive scripting*—Command View EVA now ships with the HP Storage System Scripting Utility (SSSU), a powerful scripting utility. The SSSU provides a host-to-array communications bridge for documenting and automating EVA local and remote communication tasks.
- *Integrates with HP OpenView Operations, HP OpenView Service Desk, HP OpenView Reporter, HP Systems Insight Manager and HP Storage Essentials Enterprise Edition*—Simplifies management of your entire Information Technology (IT) infrastructure with a comprehensive single pane of glass approach that provides sophisticated end-to-end management capabilities and consistency across HP management software, storage and systems.
- *Provides investment protection with HP Software Migration Programs*—For customers who are currently participating in the HP OpenView Storage Operations Manager (SOM) Migration Program, the HP OpenView SOM Migration Program ensures investment protection for qualified Storage Management Appliance (SMA) migration participants. The program offers up to one year, 24x7 software support and rights to new versions of Command View EVA, not only for current capacity but also for future growth within qualified legacy SMA-based SANs.



## High availability and data replication software

### HP StorageWorks Continuous Access EVA

HP StorageWorks Continuous Access EVA is an array-based application that performs real-time replication between HP StorageWorks EVA devices. The solution is enhanced to perform remote replication, and deliver high data availability and performance to users on Fibre Channel based campus, metro or continental SANs. Continuous Access EVA provides the highest level of storage data protection capabilities to meet your business continuity implementation goals. You can achieve a competitive advantage by combining disaster-tolerant solutions and disaster-tolerant managed services into your planning and daily routines, ensuring data's security, availability and integrity - no matter what.

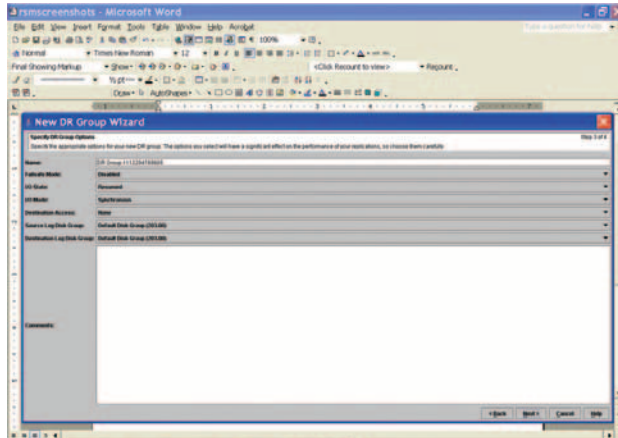
Continuous Access EVA delivers local copy with HP StorageWorks Business Copy EVA and virtualization interoperability to protect against disaster scenarios, saving time and money while maintaining the flow of information across the enterprise. Continuous Access EVA is an irreplaceable component for protecting any business, yours especially.

Continuous Access EVA shares an integrated management interface, called Replication Solutions Manager (RSM), with Business Copy EVA offering a unique, unified replication management approach. RSM manages all local and remote replication features across

the full EVA array storage family. With the combination of Continuous Access EVA's unique remote replication technologies and the unparalleled, easy-to-use RSM interface, enterprises can ensure their information is protected in the event of a disaster.

#### Features and benefits

- *Enables business continuance*—Continuous Access EVA software helps ensure compliance to business continuity and regulatory goals. Using advanced replication technologies, information is protected from disaster or unplanned downtime.
- *Features a unified replication management GUI*—Continuous Access EVA shares an exclusive unified, single management interface with HP StorageWorks Business Copy EVA. This new management interface provides users with a powerfully simple control point that utilizes job engines, wizards and host integration. This greatly reduces the user workload and errors in configuring and managing both local and remote replication environments.
- *Offers CLX, Metro Cluster (MC) and Continental Cluster (CC) support*—Provides a fully automatic failover/failback of storage and servers.
- *Provides flexible licensing*—A simple license model that provides the benefits of an attractive economical entry level capacity based option and an unlimited capacity use per EVA option for those customers with larger and ongoing capacity growth needs.
- *Features support for the new HP StorageWorks EVA4000/6000/8000*—Continuous Access EVA software now supports the full HP StorageWorks EVA family. The entire EVA family can be managed through Replication Solutions Manager or via the scripting interface for added flexibility.



- *Enables replication between HP EVA3000/5000 and EVA4000/6000/8000 devices*—Replication between all HP StorageWorks EVA family models can lower costs by tailoring the environment to the most cost-effective set up, such as using a lower cost array as the destination. Interoperability allows for flexibility and scalability at both the source and destination. It is no longer required to have like storage devices at both locations.
- *Offers synchronous and asynchronous mode of replication*—Continuous Access EVA software offers both synchronous and asynchronous modes of data transfers. Synchronous data transfers offer the highest levels of data protection. With synchronous operations, both the source and destination copies are identical and concurrent at all times. Synchronous mirroring ensures that data copies are identical. To prevent critical data loss in the event of a failure or disaster. In this mode, data is written simultaneously to the mirrored cache of the local storage system and the remote storage system, in real time, before the application I/O is completed, thus ensuring the highest possible data consistency.

Asynchronous provides a faster I/O response time by sending a write completion back to the host upon receipt in the cache. The immediate response back to the host may be beneficial or preferred by some remote replication configurations. And in other configurations, synchronous might provide just as good a response time, ensuring the highest possible data consistency.

- *Features flexible deployment on a general purpose Windows server, or an HP OpenView Storage Management Appliance*—Offers choice in remote EVA replication software deployment. It enables administrators to deploy Continuous Access on a Storage Management Appliance or on a general-purpose server. A general purpose server is a server,

not a Storage Management Appliance, which runs customer applications such as file and print servers along with Command View EVA. This option offers ease of deployment in a low-cost solution for first-time SAN implementations.

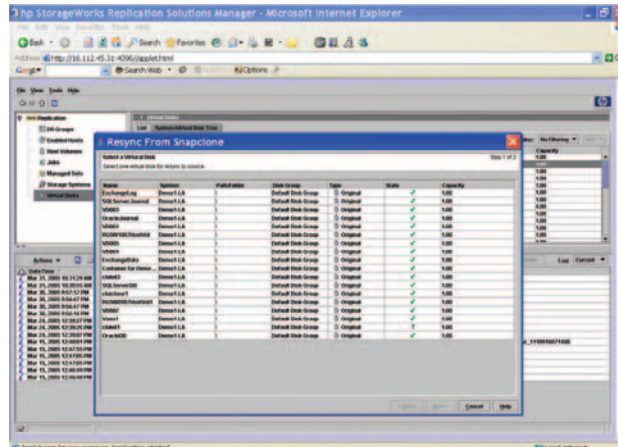
- *Offers a three-site cascaded replication wizard*—Using the new Replication Solutions Manager GUI, three-site cascaded replication can be quickly configured and managed to meet business and regulatory requirements.

## HP StorageWorks Business Copy EVA

HP StorageWorks Business Copy EVA is a local replication product for the HP StorageWorks EVA family of arrays, providing snapshot and clone set-up and management. Business Copy EVA creates point-in-time copies of storage volumes using the snapshot and cloning capabilities of the array firmware.

Basic Mode supports replication functions supported by the array firmware, meaning that basic snapshots and clones can be created. Other replication tasks such as mounting/unmounting of volumes and pausing of applications can be accomplished either manually by using a scripting language to create user-defined scripts using the SSSU (Storage System Scripting Utility) or through the use of Enhanced Mode.

Enhanced Mode is a graphical user interface and scripting environment that greatly simplifies storage management by creating, running, and managing storage replication jobs using controller based snapshots and clones. This product is indispensable for critical data center operations such as non-disruptive backups, snapshots of databases, and non-stop processing.

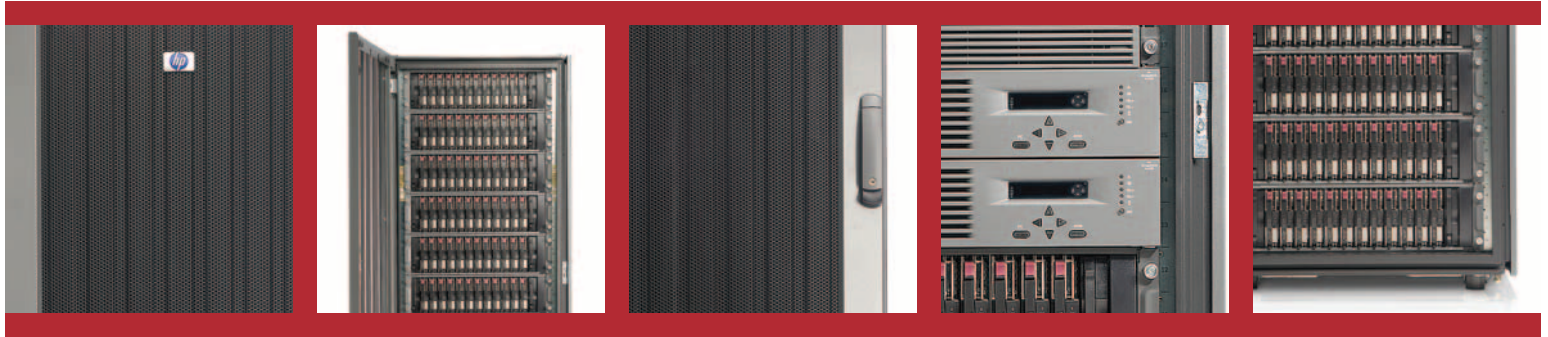


### Features and benefits

- *Enables business continuance*—Business Copy EVA software helps ensure compliance to business continuity and regulatory goals. Using advanced replication technologies, information is protected from disaster and can non-disruptively expand the use of key business information.
- *Offers unique Snapclone and Vsnap technology and traditional snapshot capability*—Snapclones provide the unique ability to allow immediate access to clones. Vsnap are true space efficient snapshots that allocate space as needed. Both technologies provide the optimum use of storage capacity. Snapshots provide a traditional capacity reserve method.
- *Features a unified replication management GUI*—Business Copy EVA shares an exclusive unified, single management interface with Continuous Access EVA software. This new management interface provides users with a powerfully simple control point that utilizes job engines, wizards and host integration.
- *Supplies cross Vraid replication*—Customers can create a Vsnap, or snapshot of a source and choose to keep it at the same RAID level, choose a different RAID and place it in a different disk group based on business needs. Snapclones can be presented to different disk groups, including Fibre Attached Technology Adapted (FATA).
- *Restores Vdisk from a Snapclone*—Customers can quickly recover a Vdisk from a normalized Snapclone or other Vdisk.
- *Offers flexible licensing*—A simple license model that provides the benefits of an attractive economical entry level capacity based option and an unlimited capacity use per EVA option for those customers with larger and ongoing capacity growth needs.
- *Supports the new HP StorageWorks EVA4000/6000/8000*—Business Copy EVA software now supports the full HP StorageWorks EVA family. The entire EVA family can be managed through Replication Solutions Manager or via the scripting interface for added flexibility.
- *Features flexible management deployment on a Windows general purpose server*—Business Copy EVA software offers a choice in local EVA replication software deployment. It enables administrators to deploy Business Copy EVA on an HP OpenView Storage Management Appliance or on a Windows 2000 Advanced Server, Windows Server 2003 Enterprise Edition server or Windows Server 2003 Standard Edition server.
- *Offers integrated scheduler*—With the addition of an integrated scheduler, replication jobs can be scheduled to run automatically.
- *Supports SQL Server 2000*—Supports freezing and thawing an SQL Server 2000 database.



Command View EVA now ships with the HP Storage System Scripting Utility (SSSU), a powerful scripting utility. The SSSU provides a host-to-array communications bridge for documenting and automating EVA local and remote communication tasks.



## Automatic path failover software

### HP StorageWorks Secure Path

In today's business environment, customers require computing systems that can help guarantee availability on a 24x7 basis. HP StorageWorks Secure Path is multi-path, high availability software that manages and maintains continuous data access to HP storage systems, enabling no-single-point-of-failure in a SAN and/or external storage solutions. Secure Path is host-resident software that monitors the data paths between server and storage to increase availability of information. In the event that a path failure is detected, Secure Path fails over to an alternative path. When that path becomes available, Secure Path can automatically failback to the original path.

In addition, Secure Path provides path management infrastructure for technologies such as disaster tolerance and high availability clusters. Secure Path is targeted to enterprise customers with mission-critical applications. It increases business agility by enabling high availability for HP storage devices.

### Features and benefits

- *Provides high availability*—Secure Path manages up to 32 paths per virtual disk, allowing for no-single-point-of-failure on a SAN.
- *Increases performance*—With Secure Path you can monitor and reroute data with dynamic load balancing for best use of storage.
- *Offers ease of use*—Allows policies to be set with web-based manager and alerts you if changes occur.
- *Provides simple manageable GUI*—The Secure Path web GUI enables simple administration for Windows hosts.
- *Offers an integrated solution*—Offers multi-path support for a variety of storage arrays.
- *Enables storage consolidation*—Secure Path allows large RAID sets to be shared among Windows hosts.
- *Supports multiple operating systems*—Features support for multiple operating systems, including: HP-UX, Windows 2000, Windows Server 2003, Linux, SUN, NetWare and IBM-AIX.

# HP StorageWorks Enterprise Virtual Array (EVA) software

HP StorageWorks EVA software solutions are customized to your data availability, replication, automation and management requirements—as well as your bottom line.

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**Support Services**—XP software comes with 1-year of 24x7 HP Care Pack Service which includes software phone in support, and software product and documentation updates except for the Workgroup Editions. For the Workgroup Editions, software product support services are purchased separately. Software enablement is also bundled with each of the XP software products, except for Business Copy XP, Continuous Access XP, Continuous Access XP Extension, and Cluster Extension XP. The Data Replication solution can be purchased to implement Continuous Access and Business Copy.

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