

Overview

Improve the availability of your IT environment with HP business continuance products for EVA. HP offers a range of solutions that protect your valuable information against the threat of downtime - whether planned or unplanned - making your operations resilient, regardless of external or internal events. HP business continuity software solutions include disaster tolerance locally and remotely to keep your corporate information accessible, and available through adverse events. Any amount of system downtime can mean lost productivity, lost revenue, lost customers, and lost opportunities. HP provides proven strategies, services, and technologies to reduce your exposure and vulnerability. Defend your mission-critical operations against diverse downtime threats, and ease your recovery if an unforeseeable catastrophe strikes with HP business continuance software solutions:

- HP Metrocluster with HP StorageWorks Continuous Access EVA
- HP Continentalclusters

HP StorageWorks Continuous Access EVA is a configuration prerequisite for Metrocluster/Continentalclusters in EVA environments. HP provides the only disaster tolerance solutions that also utilize the remote mirroring capabilities of an array-based replication application. Using Continuous Access remote mirroring as a base allows the clustering software to verify the status of the storage as well as the server cluster; thus allowing the correct failover and failback decisions to be made not only to minimize downtime, but also reduce the time to recovery.

HP Metrocluster with Continuous Access EVA and Continentalclusters are integrated solutions that offer minimal downtime by rapid site recovery with automatic failover of application services (via Serviceguard) and automatic data consistency checking and read/write enabling of remotely mirrored storage in the event of a fault, failure, or disaster.

Model	HP Metrocluster with HP StorageWorks Continuous Access EVA	T2403BA
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Features & Benefits

- Protection against system downtime from fault, failure, or disaster
- Extension of a single HP-UX Serviceguard cluster over metropolitan distances
- Automatic failover/failback to reduce the complexity involved in a disaster recovery situation
- Assures the highest standards in data integrity by leveraging the advantages of Continuous Access for EVA remote mirroring
- Integrated with the array-based Continuous Access Enterprise Virtual Array (CA EVA)
- Automatic and bi-directional failover of business-critical data and applications located up to 300 km apart - so both data centers can be active, protected, and capable of handling application failover for each other
- Access to on-demand capacity and the policy-based HP-UX Workload Manager
- Customers are able to meet stringent recovery point objectives (RPOs) and recovery time objectives (RTOs).
- Computing resources remain available.
- Application downtime is reduced through fast application failover time.
- Planned downtime is reduced through rolling upgrades.
- Critical data is protected through replication of dynamic data

Software & Hardware Prerequisites

Metrocluster Software Support

Overview

MC Version	OS Version	SG Version	Firmware Version	CommandView EVA	MultiPath	SMI-S
A.01.00	HP-UX 11i v1	SG A.11.15 or later	VCS v3.025 NOTE: EVA 3000/5000 requires VCS v3.028 or later if in a CA configuration with EVA 4000/6000/8000	CV EVA v3.3	SecurePath v3.0D	3.3.0.6+
			VCS v3.028	v4.1.2 or later	SecurePath v3.0D SecurePath v3.0F	4.1.0.10+
			VCS v4.0	v4.1.2 or later	SecurePath v3.0F SP1	4.1.0.10+
			XCS v5.03x	v4.1.2 or later	SecurePath v3.0F PvLinks	4.1.0.10+
			XCS v.5.1	v.5.0 or later	SecurePath v3.0F PvLinks Veritas DMP v.4.0	5.0 or later
	HP-UX 11i v2 Update 2	SG A.11.15 or later for HP Integrity servers SG A.11.16 or later for HP 9000 servers	VCS v3.025 NOTE: EVA 3000/5000 requires VCS v3.028 or later if in a CA configuration with EVA 4000/6000/8000	CV EVA v3.3	SecurePath v3.0E SecurePath v3.0E	3.3.0.6+
			VCS v3.028	v4.1.2 or later	SecurePath v3.0F	4.1.0.10+
			VCS v4.0	v4.1.2 or later	SecurePath v3.0F SP1	4.1.0.10+
			XCS v5.03x	v4.1.2 or later	SecurePath v3.0F PvLinks	4.1.0.10+
			XCS v.5.1	v.5.0 or later	SecurePath v3.0F PvLinks	5.0 or later
		XCS v.6.000	v.6.0.2	Veritas DMP v.4.0	6.0.2	

NOTES:

For mixed clusters all nodes must be installed with HP-UX 11i v2 Update 2 and Serviceguard A.11.16

RSM v1.2: HP StorageWorks RSM (Replication Solutions Manager) is required only for Pvlinks setup

RSM_HV_Mapper.pl is optional and required only for Pvlinks

- RSM v1.1 Host Agent software on all the HP-UX machines
- RSM_HV_Mapper.pl tool and perl package module net:telnet on any HP-UX server or on any Windows machine.

Overview

Hardware Support

- Hardware
 - Minimum two HP StorageWorks EVA arrays
 - Minimum two FC switches (per site)
 - Dual inter-site links - FC, WDM, FC-IP as appropriate
 - Minimum two Window management servers (one per site, recommend two per site)
 - Minimum two FC adapters per cluster node or one dual channel FC adapter per cluster node
 - Minimum two node cluster (one per site, recommend two per site)
 - One additional cluster server node to serve as an arbitrator for the cluster quorum service or arbitrator node. Recommend two arbitrator nodes for the highest level of availability.
 - This server(s) should be located in a third location (The third location can be as close as the room next door with its own power source or can be as far as in a site across town. The distance between all three locations dictates the level of disaster tolerance a metropolitan cluster can provide.
 - Static IP address for all network interfaces on each cluster node
- Service
 - Disaster Tolerance planning is highly recommended to implement Metrocluster and Continentalclusters. A minimum level of critical service support is also highly recommended.
 - HP Business Continuity Consulting Service for Metrocluster and Continentalclusters can be found at: <http://www.hp.com/go/recovery>

Product Features

Fully Automatic Failover and Failback

Automated failover and failback reduces the complexity involved in a disaster recovery situation. It is protection against the risk of downtime, whether planned or unplanned.

Synchronous mode Utilization

Continuous Access EVA offers synchronous data transfer mode between arrays and host. 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. Synchronous replication is appropriate when exact consistency is critical to the business application.

Serviceguard Utilization

HP Serviceguard provides:

- Data protection
- Application availability
- Ease of management
- Quick deployment of applications

HP Serviceguard is a specialized software for protecting mission-critical applications from a wide variety of hardware and software failures. With Serviceguard, multiple servers (nodes) and/or server partitions are organized in to an enterprise cluster that delivers highly available application services to LAN-attached clients. HP Serviceguard monitors the health of each node and rapidly responds to failures in a way that minimizes or eliminates application downtime.

Ordering Information

Product Description

HP Metrocluster Continuous Access EVA

HP Continentalclusters: Please consult HP Business Continuity Consulting Services at:

<http://www.hp.com/go/recovery>

Part Number

T2403BA

Related Products

The following products are related to the proper operation of the EVA array. Please see product-specific QuickSpecs (attainable via the links indicated) regarding configuration and ordering information.

StorageWorks EVA

EVA Models are modular, scalable, no-single-point-of-failure storage solutions with disaster tolerance and business continuance support for storage consolidation on heterogeneous SANs. Ideal for enterprise-wide deployment and mission-critical applications, these solutions are the most extensible, resilient, and controllable storage solutions available. They offer maximum scalability, industry-leading performance, a fully integrated suite of centralized management tools, and unmatched data protection and disaster tolerant features.

Visit one of the following URLs for product configuration and ordering information for one of the new EVA array models:

EVA4000: <http://www.hp.com/go/eva>

or <http://h18006.www1.hp.com/storage/arrayystems.html> for general storage array product configuration and ordering information.

Continuous Access EVA

HP StorageWorks Continuous Access EVA is a controller-based application that performs real-time replication between HP StorageWorks Enterprise Virtual Arrays.

Continuous Access EVA provides customers with the highest level of storage data protection capabilities to meet their business continuity implementation goals. Customers can achieve a competitive advantage by combining disaster-tolerant solutions and disaster-tolerant managed services into their planning and daily routines, ensuring the data's security, availability and integrity.

Continuous Access EVA is an irreplaceable component for protecting any business, yours especially. Continuous Access EVA is sold by utilized capacity. Please see the product URL for ordering information and part numbers: <http://h18006.www1.hp.com/storage/software.html>

Additional information online

<http://www.hp.com>

<http://www.hp.com/products1/storage/index.html>

<http://www.hp.com/hps/>

<http://welcome.hp.com/country/us/en/prodserv.html>

<http://welcome.hp.com/country/us/en/solutions.html>

<http://www.hp.com/go/recovery>

HP home page StorageWorks products home page

HP StorageWorks products home page

HP Services home page

HP Products & Services home page

HP Solutions

Business Continuity Consulting Services

Service and Support, HP Care Pack, and Warranty Information

Software Product Services

Data Replication Solution Service The Data Replication Solution Service is the most appropriate service to get a data replication solution, local and/or remote in homogeneous and heterogeneous environments, fully integrated and operational within some well defined boundaries reflecting natural limits of a fixed priced service. Requirements beyond these boundaries are going to be covered by SOW driven consulting services using this DR Solution Service as the fundamental building block for delivering more complex solutions.

The Data Replication Solution Service is comprised of 3 levels of services, with a menu of standard service options that tailors the service to meet the specific replication needs of the customer:

- Level 1 offers basic implementation services for the Continuous Access or Business Copy replication Software. This level includes the installation, basic configuration, testing, documenting, and demonstrating the SW.
- Level 2 provides additional tailoring and integration of your data replication solution to meet your specific business needs for data replication. This includes project management, design activities, basic management environment integration, functional testing and knowledge transfer.
- Level 3 provides customer specific integration for your data replication solution into your overall IT management application, such as HP OpenView as well as some specific application integration.

Disaster Tolerant Management Service

This service leverages HP's industry-leading clustering and Continuous Access technologies plus HP's worldwide recovery centers to provide customers with a cost-effective, proven approach to disaster tolerance. A complete life cycle suite of services addresses customer facilities, infrastructure design and implementation, monitoring and management of the infrastructure, a comprehensive disaster recovery plan, staff training, and periodic rehearsals. The service provides a business solution approach to disaster tolerance with proven quality of service and a single point of accountability. It delivers predictable recovery times and right-first-time implementation with worldwide, multi-site solution deployment.

DT Managed Services include:

- Pre-installation briefing, configuration verification, and project appraisal
- Dual redundant management station installation and customization
- Disaster tolerance lab training for system managers and operators
- Technical recovery plan review
- Disaster recovery test suite design and execution

Product Support

Product Support gives the customer access to HP's experienced technical support resources as well as access to HP's Information Services database for support on a variety of multi-vendor/multi-platform software products. Product support includes escalations and problem coordination with the appropriate engineering group. HP Services offer a variety of options to allow you to tailor your product service to meet the needs of your organization. Basic services on products can be uplifted from day one to ensure you receive the service you need when you need it.

Service and Support, HP Care Pack, and Warranty Information

- Software product services**
- Standard software support (HP Care Pack or annual support contract) 24 x 7 is available 24 hours per day, Monday through Sunday, including holidays, and access rights to new versions, software product and documentation updates.
 - Installation and Startup Service (software installation, configuration, startup testing and knowledge transfer).
 - Tailored support contracts based on personalized statement of work: contact your local support center via <http://www.hp.com/support/>.

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

Software Product Services	Standard Services	One year Software Support 24 x 7 (includes software technical support 24 x 7, software product and documentation updates)
	Additional Services	<ul style="list-style-type: none">• Installation and startup services• DR Solutions Service• DT Managed Service• Extended services beyond 1 year

The following services are offered as HP Care Pack Services at the time of product order For additional software product services information for North American HP Care Pack services, as well as orderable part numbers, please refer to the URLs listed below:
All storage services: <http://www.hp.com/hps/storage/>
Care Pack Priority Services: http://www.hp.com/hps/carepack/storage/cp_networked.html
Software Support Care Pack Services: http://www.hp.com/hps/carepack/software/cp_storage.html
Installation and Startup Service: http://www.hp.com/hps/storage/ns_replication.html

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