MODELS

Bi-directional Data Replication Manager

- Delivers optimal business continuance capabilities in addition to disaster tolerance to dual NT sites
- Remote site can also be a production site
- Optimized data availability and protection - Ideal solution for dual site operations

OVERVIEW

The Bi-Directional DRM Solution is a tested set of storage hardware and software products configured to allow two separate sites to use each other to maintain synchronized remote copies of on-line data. This configuration is unique in that it simultaneously synchronizes data from both sites over switched fiber. This implementation improves system utilization substantially over standard remote copy configurations, which normally require backup sites to be subservient to production sites. It is the first solution which is configured to allow a computing environment to optimize performance and maximize efficiency while delivering the highest level of data availability and business continuance traditionally associated with dedicated disaster recovery procedures.

The Bi-Directional DRM has been designed to address the following activities:
- Data Migration
- Remote Backup
- Application Design and Testing
- Data Warehousing
- Decision Support Systems

CUSTOMER BENEFITS

How Customers will use the Bi-Directional DRM solution:
- This solution allows a customer to take a snapshot of data located on any target volume, or clone either the initiator or target volume, creating additional usable copies of data at either site.
- In the event of an outage of either initiating subsystem, the solution provides immediate access to the remote data so that the application can continue to run.
- If there is a disruption at either site, the user can restart the application in minutes by rebooting the other site server to gain access to data at the alternate site.
- This solution allows the customer to break the link between the initiating system and target system, continuing to run the initiating system in production mode, while concurrently using the remote copy in other applications.
- User can reestablish the link between sites and the data will be automatically resynchronized.

PLATFORM, SOFTWARE AND APPLICATION SUPPORT

This Compaq *SANworks*™ solution supports Compaq *ProLiant*™ servers running NT 4.0. It has been tested using Enterprise Storage Array 12000s (ESA12000), each with 4 HSG80 controllers. Each controller is fully configured with 256 MB of mirrored cache.
ACS V8.5P Software Kit is the software component of the HSG80 array controller subsystem that provides data replication capabilities.
Secure Path V 3.0 provides multi-bus failover capability between host bus adapters.

HARDWARE SUPPORT

This Solution Set is currently supported on the ESA12000 storage system. Data Replication Manager (DRM) copies data to remote *StorageWorks* arrays over a switched Fibre Channel. This solution is being designed around standard announced products and scripting tools and will be covered by standard Customer Service and Professional Services, terms, conditions, and prices.

DOCUMENTATION

DATA REP MGR HSG80 SW V8.5P LIC/CDRM	128698-B21
	QB-6CAAA-SA
DRM SOL KIT NTI LIC/CDRM	128694-B21
	QB-6BTAE-SA
Data Replication Manager HSG80 Array Controller	146069-002
(ACS Version 8.5P) for Windows NT - Release Notes	

SOLUTION PRODUCT SERVICES

Software Product Services (recommended for all installations)
- Telephone Support
- New version update services, including license and media/documentation subscription services

SOLUTION WARRANTY

Software
- Conformance to Software Product Description (SPD) or general conformance to Documentation – 90 days
- Software telephone support on ESA 12000 models – 90 days

Note: Certain restrictions and exclusions apply. Consult the Compaq Customer Support Center for details. In Canada, consult the Product Information Center at 1-800-567-1616 for details.

Service & Support, CarePAQ and Warranty Information

Software Product Services
- Standalone telephone support
- Rights to new license version
- Media and documentation updates

Hardware Product Services
- Installation services
- On-site maintenance (includes warranty support)
- Response time upgrades during the warranty period
- Post-warranty coverage
- RAID setup and performance consulting via statement of work

For additional hardware installation and maintenance information, please refer to the URLs listed below:
http://www.compaq.com/services/hardware/hw_installation.html
http://www.compaq.com/services/hardware/hw_maintenance.html
Note: These Web sites are available in English only.

Warranty Upgrade Options
- Response - Upgrade on-site response from next business day to same day 4 hours
- Coverage - Extend hours of coverage from 9 hours x 5 days to 24 hours x 7 days
- Duration - Select duration of coverage for a period of 1, 3, or 5 years

CarePAQ Information
Sample part numbers:
- FM-**XHW-36, 3 year, uplift to 5 x 9, Next Day Response
- FM-**4HR-36, 3 year, uplift to 5 x 9, 4-hour Response
- FM-**724-36,   3 year, uplift to 7 x 24, 4-hour Response

** represents a two digit product specific code

- CarePAQ is defined as an upgrade to the product warranty attribute, available for a specific duration and hours of coverage.
- CarePAQ is not available for less than the product's warranty duration.
- CarePAQ is available for sale anytime during the warranty period for most products, but the commencement date will be the same as the Warranty Start Date (delivery date to end user customer). Proof of purchase may be required.
- CarePAQ services are prepaid.

For additional CarePAQ (hardware & software) information, as well as orderable part numbers, please refer to the URL listed below:
http://www.compaq.com/services/carepaq/index.html
Note: This Web site is available in English only.

Components
The following brick level options/components do not have individual CarePAQs. These items will be included in product CarePAQs into which they are installed.

Disk Drives	Tape Drives	CD/DVD ROM	SCSI Hubs in SBBs	Adapters
Bus Converters	Backplane RAID Controllers	Power Supplies	Cabling	Fans

BI-DIRECTIONAL DATA REPLICATION MANAGER
SPECIFICATIONS

System Software Supported	Microsoft Windows NT 4.0
UPC Code	See below
Processors Supported	Intel

ORDERING INFORMATION

Description	Quantity	Part Number	UPC Codes
ACS8.5P Controller Software	8	128698-B21	743172886415
Secure Path Software	2	165989-B21	720591290900
DRM NT/Intel v2.0 Platform Kit	2	128696-B21	743172884794
ESA12000 FC 2-Chs 4-HSG80 64MB Opal	2	380620-002	743172678706
Cache Upgrade RA8k ESA12k 256MB	8	380674-B21	743172751065
Compaq Fibre Channel Host Bus Adapter	4	176479-B21	720591506292
Fibre Channel Switch 16 Ports	4	158223-B21	720591237448
Fibre Channel Short Distance GBIC	20	380561-B21	743172751164
Fibre Channel 10km Long Distance GBIC	4	127508-B21	743172871541

Add disks as desired.