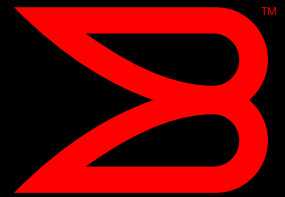


EMC[®] RecoverPoint ON BROCADE



STORAGE AREA NETWORK

Continuous Remote Replication and Data Protection for Critical Applications

HIGHLIGHTS

- Continuously replicates data locally or over a WAN without host-based software
- Continuously protects heterogeneous SAN attached storage environments
- Helps prevent data loss in the event of hardware failure, human error, data corruption, or disaster
- Enables instant recovery of critical data at local or remote sites to any specific point in time
- Leverages the intelligence in Brocade SAN fabrics to offload servers from the replication process, streamline data transfer, and minimize administrative overhead

EMC RecoverPoint on Brocade[®] is designed to provide continuous remote replication and continuous local data protection across heterogeneous IT environments. By leveraging the intelligence in Brocade Storage Area Network (SAN) fabrics and utilizing existing Wide Area Network (WAN) connectivity, this integrated solution helps IT organizations protect their critical applications against data loss while improving business continuity.

AN INTEGRATED SOLUTION FOR HETEROGENEOUS SAN ENVIRONMENTS

Integrating seamlessly into existing Brocade SAN infrastructures, RecoverPoint on Brocade provides significant advantages over host- and array-based replication methods. The solution includes two principal, integrated components: the EMC RecoverPoint solution and the Brocade Application Platform. (Sold by EMC under the EMC Connectrix brand.)

RecoverPoint enables reliable data replication, either locally or remotely, for servers connected to a Fibre Channel SAN. RecoverPoint software provides two key technologies: Continuous Data Protection (CDP) and Continuous Remote Replication (CRR). RecoverPoint utilizes the intelligence in Brocade SAN fabrics to replicate data securely and efficiently locally over the SAN or remotely to anywhere in the world over a WAN.

Configuration, management, and monitoring are centralized through the RecoverPoint Web-based console GUI or

Delivering intelligence within SAN fabrics, the Brocade Application Platform offloads the replication process from application servers and eliminates the need for host agents. The platform—available in standalone 7600 switch or FA4-18 blade for Brocade 48000 director—includes a variety of advanced features that provide robust performance and heterogeneous implementation:

- Brocade Storage Application Services (SAS) API—an implementation of the T11 FAIS standard—for reliable, scalable, and highly available storage applications
- Fully pipelined, multi-CPU RISC and memory system, providing inline processing capabilities for optimum performance and flexibility
- Partitioned port processing that utilizes distributed control and data path processors for wire-speed data transfer
- A compact, cost-effective deployment footprint
- Investment protection through non-disruptive interoperability with existing SAN fabrics

RecoverPoint on Brocade is available for Windows, AIX, HP-UX, Solaris, Linux, and VMware server environments utilizing storage devices residing in a Fibre Channel SAN.

As a result, organizations can replicate Microsoft SQL, Oracle, Microsoft Exchange, and other critical application and file data with write-order consistency and no performance degradation.

CONTINUOUS REMOTE REPLICATION

RecoverPoint leverages the high-speed processing power of the Brocade Application Platform to perform network-based replication. Every time a server executes a write, the Brocade Application Platform splits the write and sends one copy to primary storage and, via the RecoverPoint Appliance, another copy to remote secondary storage over a WAN (see Figure 1).

RecoverPoint manages the entire process outside the primary data path, so there is no I/O disruption or added latency between servers and primary storage arrays.

RecoverPoint also supports the replication of high-frequency (small-aperture) snapshots to provide transaction-consistent recovery for critical database and e-mail applications.

If disaster strikes, users and applications can fail over to the replicated volume and storage pool at the remote site, with immediate data access and all write activity captured. After the primary site is back online, organizations can replicate new data from secondary to primary storage, resynchronize, and then fail back users with complete point-in-time recovery.

CONTINUOUS DATA PROTECTION

Utilizing RecoverPoint on Brocade, organizations can achieve Recovery Point Objectives (RPOs) of zero data loss, reduce Recovery Time Objectives (RTOs) to a matter of seconds, and eliminate daily backup windows.

RecoverPoint continuously tracks and captures all write activity in special journal volumes. In the event of data loss—whether caused by hardware failure, user deletion or overwrite, virus corruption, or site outage—organizations can roll back to any point in time and recover data instantly.

In addition, RecoverPoint on Brocade enables full read/write access to replicated data without interrupting the replication process or compromising restore integrity. This enables live application testing, impact-free archival to disk or tape storage, and data testing to determine the best time from which to recover.

RecoverPoint journal volumes retain as many prior images as capacity allows. They also log and bookmark important events that occur to applications, host servers, the network, and storage arrays.

By capturing only the changes made to a data set and using advanced compression, journal storage efficiency reduces storage consumption.

OPTIMIZING SAN INVESTMENTS

Since 1997, Brocade and EMC have been delivering industry-leading SAN solutions. As part of the EMC Connectrix product family, EMC offers a complete line of Brocade SAN products ranging from entry-level switches to enterprise directors and the Brocade Application Platform. The EMC RecoverPoint on Brocade solution is jointly tested and qualified, and is supported by EMC's world-class technical support and professional service organizations.

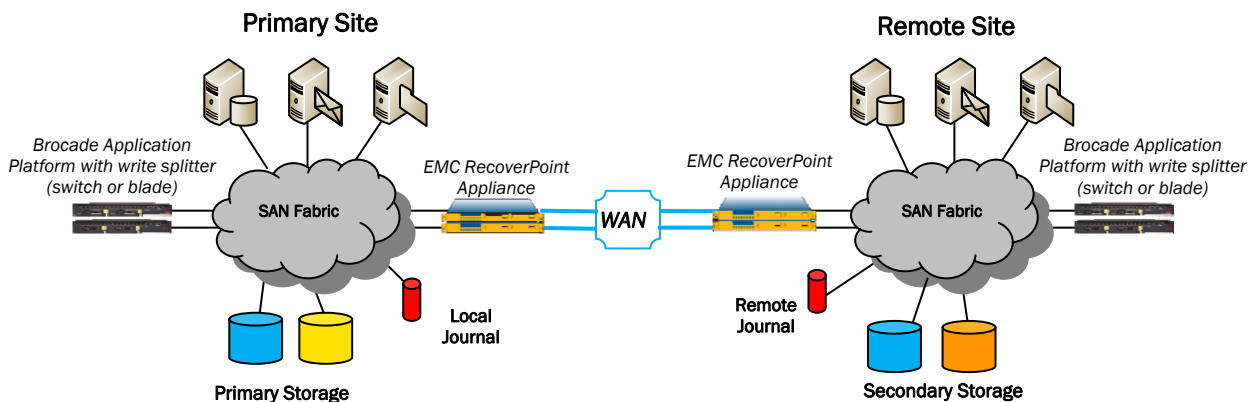


Figure 1. EMC RecoverPoint utilizes the intelligence in Brocade SAN fabrics to protect critical applications and help ensure business continuity.

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