

EMC CLARiiON Replication Solutions

The Big Picture

- Widely deployed data replication solutions protect the physical and virtual storage assets of many leading companies
- Asynchronous or synchronous solutions ensure investment protection for an existing infrastructure
- Reference architectures and best practices help optimize critical core business applications such as Oracle, Exchange, and SQL
- Proven interoperability ensures product compatibilities via rigorous EMC E-Lab testing and VMware certification

Maximize CLARiiON system data protection, replication, and disaster recovery

EMC® data replication solutions are widely deployed to protect the physical and virtual storage assets of many leading businesses. These solutions are supported with industry-leading best practices including EMC E-Lab™ interoperability testing and qualification. For EMC CLARiiON®, powered by Intel® Xeon® processors, EMC offers a focused set of data protection, replication, and disaster recovery solutions particular to the needs of commercial businesses or the remote offices of larger enterprises.

EMC CLARiiON remote replication offerings

EMC CLARiiON offers a set of replication products designed to meet the operational recovery and disaster recovery needs for business-critical applications in customers' environments. These offerings encompass the RecoverPoint family including RecoverPoint/SE for concurrent local and remote (CLR) data protection with advanced data compression and network bandwidth optimization, as well as EMC MirrorView™/Synchronous software for no-data-loss mirroring and EMC MirrorView/Asynchronous software for array-based asynchronous replication augmented with EMC SnapView™ for creating and managing point-in-time replica snapshots and clones.

EMC RecoverPoint/SE for CLARiiON

Single solution for data protection, replication, and disaster recovery for CLARiiON

The EMC RecoverPoint family offers single product solutions for data protection, replication, and operation and disaster recovery of physical storage and virtual data stores in CLARiiON environments. EMC RecoverPoint/SE is specifically designed for CLARiiON-only environments and provides customers with a comprehensive solution to replicate and protect information consolidated on CLARiiON series arrays, including VMware® Infrastructure environments with or without VMware Site Recovery Manager.

RecoverPoint/SE's efficient, IP-based asynchronous replication augments CLARiiON solutions. It supports Fibre Channel and/or iSCSI environments, optimizes bandwidth utilization, and may be deployed with no impact to storage performance with the RecoverPoint write-splitting function on the CLARiiON arrays.

The EMC approach to data protection enables certain key functionalities—such as being able to instantly recover data to any point in time—by leveraging a history journal that tracks all data changes and bookmarks that identify application-specific events. RecoverPoint/SE makes use of consistency groups, which let the user define sets of volumes for which the inter-write order must be retained during replication and recovery. Additionally, RecoverPoint/SE provides network bandwidth reduction via a policy engine that decides how much data should be compressed and how the IP network resources should be prioritized before sending the data across an IP link.



EMC RecoverPoint/SE for CLARiiON provides:

One product for data protection, replication, and disaster recovery

RecoverPoint/SE provides concurrent local and remote replication of the same data enabling many local and remote site combinations for production, test, and development. Additionally, with support for popular operating systems and application environments, RecoverPoint/SE offers customers many possible use cases for deployment.

One management interface

With one management interface, RecoverPoint/SE provides a single management console for managing data protection and replication across local and remote sites. Similarly, it supports many different disaster recovery scenarios.

Any-point-in-time recovery

RecoverPoint/SE enables roll back to any point in time for effective local and remote recovery from events such as database corruption or power outages. With RecoverPoint/SE, CLARiiON environments experience no unplanned downtime.

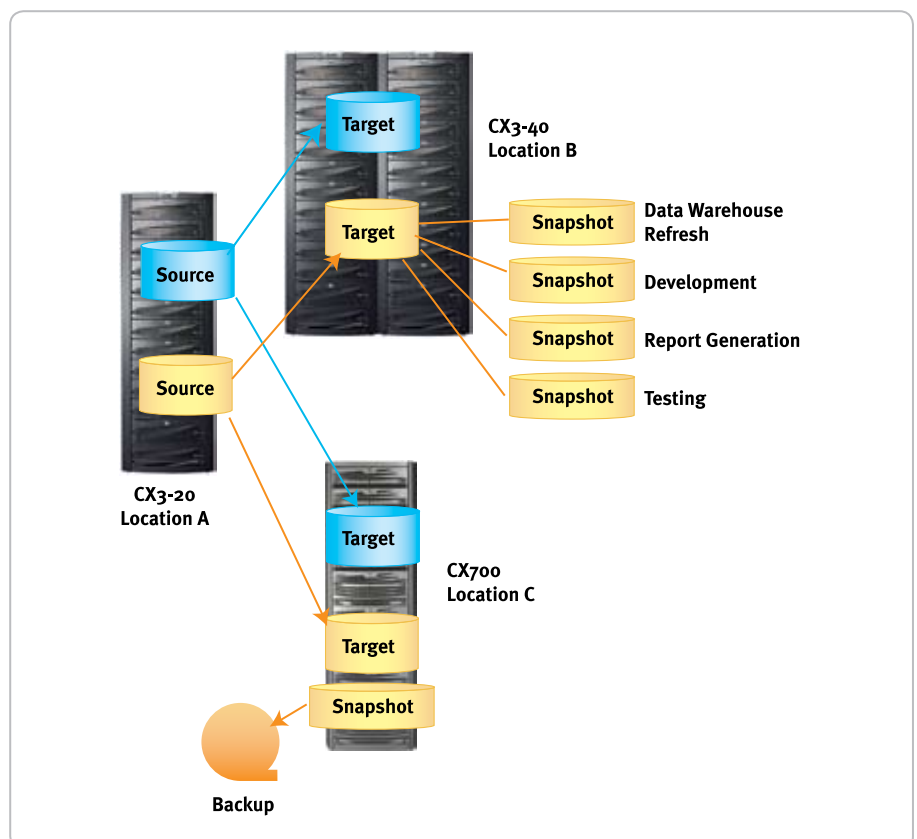
Any environment

RecoverPoint/SE supports many host operating environments and can be extended to support CLARiiON as well as other EMC and non-EMC storage arrays with a single management interface and to scale to handle higher capacities.

EMC MirrorView and SnapView

Array-based data replication solutions for the midrange

EMC MirrorView software provides highly available data protection across a region or across the globe. By maintaining synchronous—and in some cases, asynchronous—data mirroring between CLARiiON systems, MirrorView ensures data availability for important business functions. Array-based MirrorView does not use any server cycles.



Together, EMC MirrorView/S and SnapView allow you to create copies of production data for backup, application development and testing, and data warehouse refreshes from a secondary location.

EMC SnapView software allows the creation of mountable snapshots or full-copy clones of production data, enabling testing, decision support, debugging, or reporting in parallel, without taking applications offline.

Together, EMC MirrorView and SnapView software provide a unique solution for online data availability and disaster recovery with no degradation to overall system performance.

Ultimate data protection with zero data loss

With MirrorView/Synchronous (MirrorView/S) replication, a secondary site can be configured to keep a mirror image of data from a primary site. In a MirrorView/S configuration, a server writes to the source array and the remote array simultaneously. An acknowledgement is sent back to the server once the data has been written in both the source and the remote arrays, ensuring a transaction record on both arrays.

One-to-many data mirroring and many-to-one data consolidation

MirrorView/S concurrently and synchronously mirrors one source LUN to two different target CLARiiON systems (without consistency groups). This capability is particularly helpful when business requirements dictate having one data copy not part of any other activities or processes and another copy of the production data for parallel processing activities, such as backups or decision-support queries using SnapView.

MirrorView/Asynchronous (MirrorView/A) can be used to consolidate information to one centralized CLARiiON array for centralizing remote processes such as backups, decision-support queries, simplified disaster failover, and remote data bunkering. MirrorView/A fulfills many replication needs for operational recovery not requiring CDP or bandwidth optimization.

Minimize impact to production data

With SnapView snapshots and fully writeable copies (clones), users can perform additional management tasks with little impact on the production data. Because SnapView enables making clones of data, there is no contention between reading and writing the production data and the copies. Consequently, data warehousing reads, application testing, and backup/recovery operations can occur with up-to-the-minute data and without taking production offline.

EMC Services for remote replication software

EMC Services leverage EMC leadership in comprehensive recovery solutions, extensive storage deployment best practices, and proven methodology to accelerate business results without straining resources. This knowledge base is augmented by rigorous EMC E-Lab testing and VMware certification to ensure EMC replication product interoperability in many physical and virtual environments. EMC Services assesses risks, devises an optimal plan using replication technologies, and keeps your applications and your business running, regardless of scale.

The EMC Global Delivery Model ensures rapid and flawless service delivery customized to address your specific goals and requirements in three phases. These phases include: discovery, analysis, and planning; implementation and testing; and documentation, functional overview, and acceptance.

After implementation, EMC Customer Service—six-time winner of the SSPA STAR Award for outstanding mission-critical support—helps you keep your information available 24/7. And, EMC Education Services drives the value of your investment with a comprehensive portfolio of customer courses.



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