

EMC RECOVERPOINT FAMILY

Cost-effective local and remote data protection and disaster recovery solution

ESSENTIALS

- Maximize application data protection and disaster recovery
- Protect business applications residing in public or private clouds including Microsoft, Oracle, SAP, VMware, file systems, and other applications
- Never lose your data with EMC RecoverPoint—the only replication product that can perform any point-in-time recovery
- Implement a single product solution for data protection, replication, and disaster recovery for block LUNs in EMC and non-EMC storage, including EMC Symmetrix VMAX 10K, Symmetrix VMAX 20K, Symmetrix VMAX 40K, EMC VPLEX, EMC VNX series, EMC CLARiiON, and EMC Celerra unified storage
- Instantaneous access to replicated data for disaster recovery or for other purposes such as testing and data repurposing
- Minimize capital costs through virtual environment support for server and storage consolidation
- Protect a VMware infrastructure with RecoverPoint integrated with VMware vCenter and vServer
- Reduce infrastructure cost with policy-driven bandwidth reduction, data compression, and deduplication technologies
- DVR-like recovery of data locally or remotely to any point in time for local data protection and disaster recovery
- Fully integrated with EMC solutions, storage arrays, and management software
- Zero data loss over unlimited distances with Axxana

DISASTER RECOVERY MADE SIMPLE— THE WAY IT SHOULD BE

With EMC® RecoverPoint, you'll never have to worry about data protection again. RecoverPoint's ability to go back in time and recover your data in a consistent state means that data loss is reversible, and you can rest assured your data is safe.

EMC RecoverPoint/CL is a single solution that provides the advantages of host-based and array-based solutions while replicating your data from any SAN-based array to any other SAN-based array over your existing Fibre Channel or IP network—quickly, and cost-effectively—using any combination of host-based, EMC Symmetrix® VMAX™ 10K, Symmetrix VMAX 20K, Symmetrix VMAX 40K, EMC VPLEX™, EMC VNX™ series-based, EMC CLARiiON®-based, or intelligent fabric-based write-splitting options. EMC RecoverPoint/EX is a product variant that is optimized for the EMC Symmetrix VMAX 10K, Symmetrix VMAX 20K, Symmetrix VMAX 40K, EMC VPLEX, EMC VNX series, and CLARiiON CX3 and CX4 series of storage arrays. EMC RecoverPoint/SE is a product variant that is optimized for the EMC VNX series, CLARiiON, and EMC Celerra® unified storage arrays.

All three products provide synchronous local replication using continuous data protection (CDP), synchronous and asynchronous continuous remote replication (CRR), and concurrent local and remote (CLR) data protection, all with point-in-time DVR-like recovery capabilities. The RecoverPoint family protects companies from data loss due to common problems such as server failures, data corruption, software errors, viruses, and end-user errors, while also protecting against catastrophic events that can bring an entire data center to a standstill.

EMC RecoverPoint family delivers dramatic cost savings by eliminating complex, non-performing data protection schemes, and application-specific point products in favor of deploying a single, easy-to-manage local and remote replication solution.

RecoverPoint supports application bookmarks, instantaneous recovery, and bi-directional local and remote replication. RecoverPoint provides point-in-time DVR-like recovery, and its unique clustered architecture provides linear scalability to support the most-demanding environments. RecoverPoint's support for heterogeneous storage, hosts, networks, and SANs enables storage investment protection, enhances business continuity, and facilitates storage consolidation.

A SINGLE SOLUTION FOR LOCAL DATA PROTECTION AND REMOTE REPLICATION

The RecoverPoint family includes local and remote replication and recovery capabilities that run on the same RecoverPoint appliance, which gives you a single solution that protects the same data both locally and remotely. This enables you to reduce cost and ease management based on your unique needs for end-to-end data protection.

RecoverPoint tracks changes to data at a block level and journals these changes using CDP technology. This capability is used to protect critical data from physical or logical failures such as server outages, data corruption, software errors, viruses, and common user errors. This complements existing backup solutions and helps eliminate the need to maintain strict daily backup windows.

Advanced data compression technologies result in unparalleled reduction of the storage required for the journal, enabling more data to be maintained online for faster recovery.

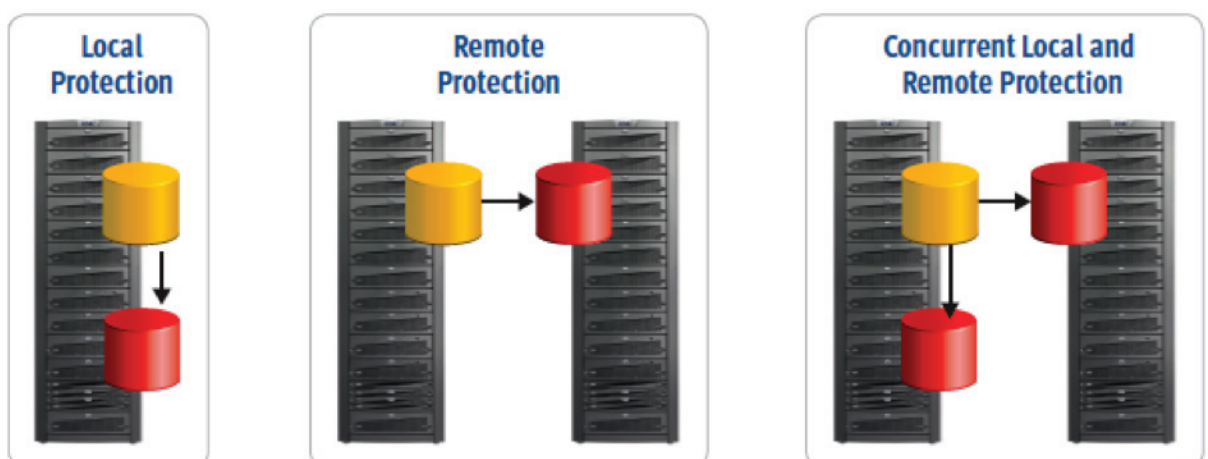
An enterprise-class data replication solution, RecoverPoint also offers point-in-time DVR-like recovery enabling complete protection from site disasters. In unified VNX storage environments, RecoverPoint provides the additional benefits of a single, unified, continuous remote replication solution for SAN LUNs and NAS file systems for disaster recovery. Enterprise performance, scalability, and instant recovery are combined to guarantee data consistency with recovery that takes seconds or minutes instead of hours or days.

Synchronous replication and continuous asynchronous bi-directional replication at the block level with no distance limitation are also provided with RecoverPoint. Its technology is designed to maintain the dependent write-order data consistency and dynamically switches between synchronous and asynchronous replication modes based on customer policy for performance and latency. Its advanced bandwidth reduction, data deduplication, and data compression capabilities are designed to dramatically reduce WAN bandwidth requirements and associated costs. RecoverPoint also enables both local and remote data protection for the same volume, providing you a replica that can be used for operational recovery and a second replica that can be used for disaster recovery.

EMC RECOVERPOINT FAMILY CAPABILITIES

ONE WAY TO PROTECT EVERYTHING YOU HAVE... BETTER

The EMC RecoverPoint family is your one solution to protect any host, any physical or virtualized application, on any array in your entire data center. You can protect everything you need since its comprehensive data protection suite can replace the multiple products currently installed for local and remote data protection—including application-specific technologies—to dramatically lower data protection and operational recovery complexity and cost.



EMC RecoverPoint: local and remote data protection and disaster recovery

RecoverPoint delivers world-class disaster recovery with the ability to set recovery point objectives based on the value of your application data—eliminating the need to protect only your most critical data. With RecoverPoint, you can recover your data to any point using DVR-like recovery technology, which enables you to get your business back on line faster. RecoverPoint offers multiple management features, including automated discovery of LUNs.

It is centrally managed through a Java-based management application with a graphical user interface (GUI) or through a command-line interface (CLI). RecoverPoint is also SNMP-enabled for integration with standard system management applications. RecoverPoint utilizes policies to manage to business objectives and SLAs for ensuring data availability. It intelligently determines the optimized data protection process, dramatically reducing complexity and maximizing the use of IT and system resources.

POINT-IN-TIME RECOVERY

RecoverPoint preserves the write-order of changed data across multiple servers and storage arrays and stores it with time-specific and optional application-specific bookmarks, enabling immediate DVR-like recovery to a point in time without data loss. It can recover applications quickly to a selected time or event with assured consistency, even when data spans multiple heterogeneous storage volumes and servers.

HETEROGENEOUS SUPPORT

RecoverPoint delivers a single solution that provides superior data protection with guaranteed consistency across a data center's multivendor server, network, and storage environment, protecting and optimizing an organization's valuable infrastructure investment. In addition, IT organizations can tier storage using lower cost storage technology. This protects critical application environments running on more expensive storage, dramatically lowering the cost of data protection.

The RecoverPoint Symmetrix write splitter, when used with an EMC Symmetrix VMAX with FTS, or the RecoverPoint VPLEX write splitter, when used with an EMC VPLEX, or the Brocade Storage Application Services and Cisco SANTap APIs on EMC Connectrix® switches, directors, and/or blades, or EMC host-based splitters—coupled with the RecoverPoint appliances—create an integrated solution for the heterogeneous enterprise that extends RecoverPoint functionality, manageability, flexibility, and performance to both EMC and third-party storage arrays.

END-TO-END PROTECTION FOR VIRTUALIZED APPLICATION ENVIRONMENTS

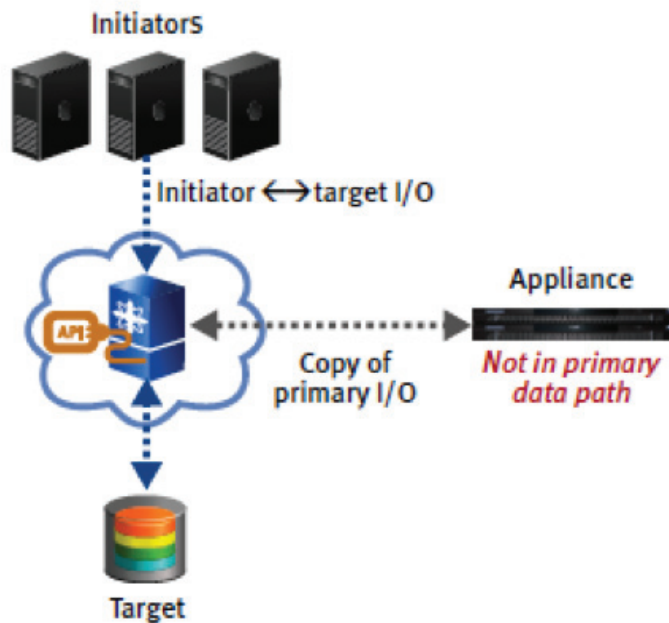
RecoverPoint lets you replicate application data to your disaster recovery site synchronously or asynchronously with varying recovery point objectives (RPOs). You decide the right balance of RPO and recovery time objective (RTO) required to meet your service levels. It also provides a flexible, comprehensive application, data-protection solution with point-in-time recovery in virtualized VMware® infrastructure and Microsoft Hyper-V server environments. For VMware, RecoverPoint integrates with VMware vCenter™ enabling the user to view the protection status for virtual machines. It also integrates with VMware vCenter Site Recovery Manager to orchestrate and streamline data protection and failover and failback processes, enabling VMware virtual machines to be brought back online rapidly with no data loss.

AFFORDABLE DATA PROTECTION

RecoverPoint includes several technologies to make the best use of available network and storage resources, including bandwidth reduction and data compression, journal compression, and snapshot consolidation.

By using proven, patented, intelligent bandwidth reduction, data deduplication, and data compression technologies, it delivers up to a 90 percent reduction in the WAN bandwidth required for replication. These technologies enable you to experience the best possible level of protection for the available bandwidth—while dramatically reducing WAN costs—particularly over long distances. Similarly, RecoverPoint requires less storage space than

alternate technologies since it only tracks changes made during the customer-specified, recovery-point-objective interval. It also leverages journal compression to use less disk storage than other solutions when storing the tracked changes, resulting in an even greater reduction in storage costs. In addition, RecoverPoint has a snapshot consolidation policy that lets users decide how long to retain every write captured and at what point to consolidate their changes—which also optimizes storage space—and as a result, reduces the amount of storage necessary to retain snapshots.



INSTANT ACCESS TO PROTECTED DATA

RecoverPoint enables application data to be accessed at a point in time using DVR-like technology to select intelligent time- or application-specific bookmarks. Application data at the selected point in time is instantly recovered and can be immediately read and written by the host. RecoverPoint enables read/write access to the recovered data without disturbing the replication process. This capability can be used to offload backups, enable live application testing, support on-demand recovery, migrate data, and for many other valuable data processing purposes. RecoverPoint also supports multiple transaction-consistent recovery points—each indexed to a specific point in time.

EXTENSIBLE APPLICATION INTEGRATION

By providing seamless integration with physical or virtualized business applications from Microsoft, Oracle, SAP, and others, RecoverPoint facilitates intelligent protection and recovery, dramatically reducing application recovery time and eliminating data loss. RecoverPoint monitors application and environment events during the replication process. Important events that occur at the application, host, network, or storage level are logged, and root-cause analysis is performed to analyze any resultant process failures. RecoverPoint offers feature-rich programmable interface that enables customers to generate customized bookmarks for their selected business process applications, which allows those applications to be quickly recovered back to an application-consistent point in time.

In addition, RecoverPoint creates application-consistent recovery points for Microsoft applications such as Exchange Server and Microsoft SQL Server through the use of Microsoft Volume Shadow Copy Service (VSS) APIs. This capability provides dramatic reduction in recovery time for Exchange and SQL Server and enhances the operational recovery and

disaster recovery for critical business applications. Finally, RecoverPoint is integrated with other EMC products, including Replication Manager, Data Protection Advisor, AppSync, and EMC NetWorker®.

CONTACT US

Find out how EMC RecoverPoint and RecoverPoint/SE can meet your continuous remote replication and continuous data protection needs—simply, affordably, and effectively. Visit our website at www.EMC.com/products/family/recoverpoint-family.htm or contact your local EMC representative.

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