

EMC RECOVERPOINT FAMILY

EMC RecoverPoint/SE, EMC RecoverPoint/EX, and EMC RecoverPoint/CL

EMC RecoverPoint can be part of a comprehensive information lifecycle management (ILM) strategy—a strategy that helps your enterprise attain the maximum value from its information, at the lowest TCO, at every point in the information lifecycle. RecoverPoint enables ILM by enhancing an enterprise's operational recovery and disaster recovery processes, by reducing the amount of data loss, and by reducing the time required for recovery.

The EMC® RecoverPoint family provides cost-effective, local continuous data protection (CDP) and continuous remote replication (CRR) solutions that allow for any-point-in-time data recovery. RecoverPoint/SE is an EMC VNX series, CLARiiON®-and Celerra unified specific offering that simplifies the continuous data protection and replication for these arrays. RecoverPoint/EX supports local and remote replication for VMAXe, VNX series, and CLARiiON CX3 or CX4 arrays. RecoverPoint/CL is a full-featured offering that adds support for intelligent fabrics and heterogeneous storage platforms. All products enable customers to centralize and simplify their data protection management and provide local continuous data protection and/or remote replication. RecoverPoint/SE is provided in the Local and Remote Protection Suites for the VNX series. RecoverPoint/SE is also available separately for the EMC CLARiiON and EMC Celerra® unified family of arrays.

Specifications

FEATURES

RECOVERPOINT CDP

Provides block-level local replication between LUNs in the same SAN using CDP technology that journals every write for later recovery to any point in time.

RECOVERPOINT CRR

Provides dynamic synchronous and asynchronous block-level remote replication between LUNs in two different SANs using near-CDP technology that journals groups of writes for later recovery to significant points in time.

RECOVERPOINT CLR

Provides simultaneous block-level local replication and dynamic synchronous and asynchronous block-level remote replication for LUNs with one copy residing locally in the same SAN with every write journaled, and the second copy residing remotely in a different SAN with significant groups of writes journaled. Recovery of one copy can occur without affecting the other copy.

RECOVERPOINT/CLUSTER ENABLER (RECOVERPOINT/CE)

Integrates RecoverPoint continuous remote replication (CRR) with Microsoft Failover Clusters on Windows Server 2003 and Windows Server 2008 to facilitate the failover processes for geographically dispersed cluster nodes with RecoverPoint replicated storage. RecoverPoint/CE is a separately priced offering for RecoverPoint/CL and is included with RecoverPoint/EX and RecoverPoint/SE.

UNIFIED REPLICATION

RecoverPoint supports EMC and non-EMC storage arrays, including the EMC VMAX™, VMAXe, Celerra unified, VNX5100™, VNX5300™, VNX5500™, VNX5700™, and VNX7100™ for local and remote replication of block LUNs. All LUN types are supported for bi-directional local and remote replication. The

NAS file systems of the VNX series of storage arrays and the VNX gateway products can be replicated by RecoverPoint/SE for disaster recovery. RecoverPoint/SE supports bi-directional replication of NAS file systems for disaster recovery.

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POLICY-BASED MANAGEMENT

Enables optimization of storage and network resources to meet SLAs by managing recovery-point objectives (RPOs) and recovery-time objectives (RTOs) across multiple applications and their data.

APPLICATION-AWARE INTEGRATION

Creates intelligent bookmarks for replication and CDP with application integration capabilities that leverage vendor-supplied APIs, such as the Microsoft Virtual Device Interface (VDI) for SQL Server and Microsoft Volume Shadow Copy Services (VSS) for Exchange.

RELIABILITY AND AVAILABILITY

RecoverPoint features are provided by an out-of-band appliance attached into the SAN for local storage access and into the IP WAN for remote replication and management. Highly available appliance configurations have no single point of failure. Each appliance supports a dual (A/B) fabric. Remote replication is also supported over stretched fiber.

SYSTEM CAPABILITIES

Feature	RecoverPoint/SE	RecoverPoint/EX	RecoverPoint/CL
Number of RecoverPoint appliances per RecoverPoint Cluster	2-8	2-8	2-8
Maximum LUNs supported per RecoverPoint cluster	2,048	2,048	2,048
Maximum amount of protected data	300 TB (controlled by license)	300 TB (controlled by license)	300 TB (controlled by license)
Maximum number of arrays supported	CDP: 1, CRR or CLR: 2 (1 local, 1 remote*)	Unlimited	Unlimited
Maximum LUN size (array-based splitter)	32 TB	32 TB	32 TB
Maximum LUN size (all other splitters)	2 TB (less 512 bytes)	2 TB (less 512 bytes)	2 TB (less 512 bytes)
Number of consistency groups per appliance	64	64	64
Number of consistency groups per RecoverPoint cluster	128	128	128
Number of distributed consistency groups per RecoverPoint cluster	8	8	8
Arrays supported	VNX series, CLARiiON series, Celerra unified	VMAXe, VNX series, CLARiiON series, Celerra unified	Heterogeneous
Write splitters	VNX/CLARiiON array-based write splitter and Windows-host based write splitter	Array-based write splitter	All write splitters
Number of clusters attached to a single array	Four for arrays supported by array-based write splitter, one for other arrays	Four for arrays supported by array-based write splitter, one for other arrays	Four for arrays supported by array-based write splitter, one for other arrays

* Up to four remote arrays are possible in some configurations using a shared array-based RecoverPoint write splitter.

CONNECTIVITY

Each RecoverPoint appliance provides four physical Fibre Channel ports that are auto-sensing, supporting 2, 4, and 8 Gb/s connections. Each RecoverPoint appliance provides two 100/1000 Ethernet ports. One Ethernet port is used for management and monitoring and the other port is used for remote replication over the WAN. Hosts and arrays are connected to the RecoverPoint appliance using standard Fibre Channel SANs, enabling host fan-in and array fan-out.

INTEROPERABILITY

RecoverPoint/SE CDP supports protecting volumes inside a single VNX series, CLARiiON, or Celerra unified array. RecoverPoint/SE CRR supports replicating volumes between two CLARiiON arrays. RecoverPoint/SE CDP supports protecting volumes inside a single VNX series, CLARiiON, or Celerra unified array. RecoverPoint/SE CRR supports replicating volumes between two VNX series, CLARiiON, or Celerra unified arrays. RecoverPoint/SE CLR supports the protection and replication of the same volume locally inside a single array and between two arrays. RecoverPoint/SE supports the VNX series, CLARiiON CX, CX3 UltraScale™, and CX4 UltraFlex™ series arrays. RecoverPoint/EX supports the VMAXe, VNX series, and CLARiiON CX3 or CX4 arrays. RecoverPoint/CL supports heterogeneous server and storage platforms. Please see the EMC Support Matrix for details.

LIMITS AND PERFORMANCE

RecoverPoint/SE supports Linux, VMware®, Microsoft Windows, AIX, HP-UX, Linux, and Solaris platforms using the VNX/CLARiiON-based splitter driver and supports the Windows platform with the host-based splitter driver. RecoverPoint/CL supports a host-based and array-based splitter driver on multiple platforms. A single array-based splitter can be shared by up to four RecoverPoint clusters—enabling replication from a single shared VMAXe, VNX series, or CLARiiON CX3 or CX4 array to up to four remote arrays and from up to four remote arrays to a single shared VMAXe, VNX series, or CLARiiON CX3 or CX4 array. RecoverPoint /CL supports intelligent fabric-based splitters available on the EMC Connectrix® AP-7600B or on the Connectrix PB-48K-AP4-18 blade installed in the Connectrix ED-48000B or Connectrix ED-DCX-B intelligent-switching platform or on the Connectrix MDS SSM blade installed in the Connectrix MDS 9000 family of storage switches. Please see the EMC Support Matrix for details.

MANAGEMENT

RecoverPoint is managed through the management IP interfaces on each RecoverPoint appliance. For high-availability support, a virtualized management IP can be assigned for remote use. Primary management is through a web-based management application that supports HTTP or HTTPS. Interactive and programmatic command-line access (CLI) is available through SSH over SSL V3.

PHYSICAL SPECIFICATIONS

The RecoverPoint appliance is designed to be mounted into a standard NEMA 19-inch rack cabinet using side-mounting EMC EOU rails and/or slides.

Height (in/cm)	1.68/4.26 (fits 1U slot)
Width (in/cm)	17.44/44.31
Depth (in/cm)	30.4/77.2
Weight (lb/kg)	39/17.7

POWER SPECIFICATIONS

The RecoverPoint appliance has two redundant hot-swappable power supplies. An EC320-C14 inlet is provided on the rear wall of each power supply.

Input Voltage (VAC)	90/246 VAC
Frequency (Hz)	50–60 Hz
Circuit Breaker (Amps), Recommended	10
Power Drops	2
Heat Dissipation	1,713 BTU/hr

ENVIRONMENTAL

Operating Temperature	10 ^o C to 35 ^o C (50 ^o F to 95 ^o F) 0 ft
Storage Temperature	–40 ^o C to 65 ^o C (–40 ^o F to 149 ^o F)
Operating Relative Humidity	20% to 80% non-condensing (twmax=29 C)
Maximum Humidity Gradient	10% per hour, operational and non-operational conditions
Storage Relative Humidity	5% to 95% non-condensing (twmax=38 C)
Operating Vibration	0.26 G at 5 Hz to 350 Hz for 2 minutes
Storage Vibration	1.54 Grms random vibration at 10 Hz to 250 Hz for 15 minutes
Operating Shock	1 shock pulse of 31 G for up to 2 ms
Storage Shock	6 shock pulses of 71 G for up to 2 ms
Operating Altitude	–16 to 3,048 m (–50 ft to 10,000 ft)
Storage Altitude	–16 m to 10,600 m (–50 ft to 35,000 ft)

WARRANTY AND MAINTENANCE

Ninety-day software warranty and one-year hardware warranty is included. Software maintenance and extended hardware warranties are available.

EMC², EMC, CLARiiON, CLARiiON CX, Connectrix, UltraFlex, UltraScale, VNX, VNX5100™, VNX5300™, VNX5500™, VNX5700™, VNX7100™, and the EMC logo are registered trademarks or trademarks of EMC Corporation in the United States and other countries. VMware is a registered trademark or trademark of VMware, Inc. in the United States and other jurisdictions. All other trademarks used herein are the property of their respective owners. © Copyright 2007, 2011 EMC Corporation. All rights reserved. Published in the USA. 03/11 Specification Sheet H2770.11