

# INTRODUCTION TO EMC RECOVERPOINT 3.5: NEW FEATURES AND FUNCTIONS

Applied Technology

## Abstract

This white paper discusses EMC® RecoverPoint version 3.5 software. This software locally and/or remotely replicates one or more SAN or iSCSI volumes in one or more storage systems and maintains an online history of all changes to the volumes. RecoverPoint enables you to bring databases and applications back online quickly and easily after an event like data corruption. RecoverPoint technology enables you to dramatically reduce recovery time and increase the number of recovery points for your application environments.

September 2012

Copyright © 2007, 2012 EMC Corporation. All Rights Reserved.

EMC believes the information in this publication is accurate of its publication date. The information is subject to change without notice.

The information in this publication is provided “as is”. EMC Corporation makes no representations or warranties of any kind with respect to the information in this publication, and specifically disclaims implied warranties of merchantability or fitness for a particular purpose.

Use, copying, and distribution of any EMC software described in this publication requires an applicable software license.

For the most up-to-date listing of EMC product names, see EMC Corporation Trademarks on EMC.com.

All other trademarks used herein are the property of their respective owners.

Part Number h2781.13

## Table of Contents

|   |          |
|---|----------|
| <b>Executive summary</b> .....                        | <b>4</b> |
| <b>Introduction</b> .....                             | <b>5</b> |
| Audience .....  | 5        |
| <b>Introduction to RecoverPoint 3.5</b> .....         | <b>5</b> |
| New features in RecoverPoint 3.5.....                 | 5        |
| RecoverPoint Symmetrix Write Splitter .....           | 6        |
| RecoverPoint VPLEX Write Splitter .....               | 6        |
| Enginuity 5876 support .....                          | 6        |
| FIPS 140-2 level 1 Compliances .....                  | 6        |
| Dropping of GEN3 RecoverPoint appliance support ..... | 6        |
| Total customer experience improvements .....          | 6        |
| <b>Conclusion</b> .....                               | <b>8</b> |
| <b>References</b> .....                               | <b>8</b> |

## Executive summary

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 is a family of products consisting of RecoverPoint/CL for replicating across EMC and non-EMC storage; RecoverPoint/EX for Symmetrix VMAX 10K, Symmetrix VMAX 20K, Symmetrix VMAX 40K, VPLEX Local and VPLEX Metro, VNX™ series, CLARiiON® CX3 and CX4, and Celerra® unified storage environments; and RecoverPoint/SE for VNX series, CLARiiON, and Celerra unified environments. RecoverPoint/EX and RecoverPoint/SE are optimized for the EMC storage they support with built-in array-based write splitters.

RecoverPoint/SE is the offering that simplifies continuous data protection and replication for VNX, Celerra unified, and CLARiiON CX™, CX3 UltraScale™, and CX4 series arrays. RecoverPoint/EX supports local and remote replication for Symmetrix VMAX 10K, Symmetrix VMAX 20K, Symmetrix VMAX 40K, VPLEX, VNX series, and CLARiiON CX3 and CX4 arrays. RecoverPoint/CL is the full-featured offering that adds support for intelligent fabrics, heterogeneous servers, and heterogeneous storage platforms.

All products are appliance-based data protection solutions designed to ensure the integrity of production data at local and/or remote sites. These products enable customers to centralize and simplify their data protection management and allow for the recovery of data to nearly any point in time.

RecoverPoint CDP provides local continuous replication of every write between a pair of local volumes residing on one or more arrays. RecoverPoint CRR provides remote replication between pairs of volumes residing in two different sites. For asynchronous remote replication multiple writes are collected at the local site, compressed, and sent across periodically to the remote site where they are uncompressed, written to a journal, and then distributed to the target volumes. For local replication and synchronous remote replication every write is collected and written to a local or remote journal and then distributed to the target volumes. In both cases the journal data provides the ability to roll back the target volume to any point in time. RecoverPoint utilizes policies that map the recovery time objectives (RTO) and recovery point objectives (RPO) by consistency groups, allowing for flexibility in protecting multiple applications.

RecoverPoint is designed to minimize impact to a production host's I/O throughput or CPU load. RecoverPoint intercepts write I/Os to the source volume at "write-speed," which ensures that there is minimal write performance degradation seen by the production host. It is important to properly size RecoverPoint and configure the array to ensure minimal impact to applications. EMC has several tools available that can be used to size RecoverPoint. These tools can provide guidance on the amount of bandwidth and number of RecoverPoint appliances, as well as array throughput and journal sizes to meet the customer's RPOs and protection needs.

EMC RecoverPoint 3.5 includes support for the Symmetrix RecoverPoint write splitter for the Symmetrix VMAX 20K and Symmetrix VMAX 40K arrays. It also includes a RecoverPoint write splitter for VPLEX Local and VPLEX Metro platforms.

## Introduction

Today's businesses are faced with an ever-increasing amount of data that threatens to undermine their existing storage management solutions. Data protection is no longer the simple copying of yesterday's changed files to tape. Critical data changes occur throughout the day, and to protect this data customers are frequently turning to new technology such as continuous data protection and continuous remote replication. This white paper introduces the new features and functions in RecoverPoint version 3.4 and explains how they can be used to improve overall data protection and recovery.

### Audience

This white paper is intended for systems integrators, systems administrators, and members of the EMC and partners professional services community. This paper serves as an overview to the new features and functions in RecoverPoint version 3.4. The [References](#) section provides links to more information on RecoverPoint.

## Introduction to RecoverPoint 3.5

RecoverPoint 3.5 is a major release of the RecoverPoint software with several new features and functions. Users who want the new features should upgrade to RecoverPoint version 3.5. Customers who are using generation 1 (GEN1) or generation 3 (GEN3) RecoverPoint appliances will not be able to upgrade to RecoverPoint 3.5. However, these customers can purchase new GEN4 RecoverPoint appliances and upgrade their current configuration to operate on GEN4 appliances. At this point they can be upgraded to RecoverPoint 3.5.

### New features in RecoverPoint 3.5

RecoverPoint 3.5 introduces new features and capabilities for local and remote replication. Some of the new features include:

- Array-based write splitter for Symmetrix VMAX 40K and Symmetrix VMAX 20K
- Array-based write splitter for VPLEX Local and VPLEX Metro
- Customers with Enginuity 5876 can have different size LUNs between the production copy and the replica(s)
- FIPS 140-2 level 1 compliance
- Support for 4096 LUNS for the RecoverPoint Symmetrix VMAX write splitter
- Dropping of Generation 3 (GEN3) RecoverPoint appliance support
- Total Customer Experience Improvements

## RecoverPoint Symmetrix Write Splitter

Customers that use a Symmetrix VMAX 10K, Symmetrix VMAX 20K, or Symmetrix 40K running Enginuity 5876 have a write splitter that supports up to 2048 LUNs on a Symmetrix VMAX 10K and up to 4096 LUNs on a Symmetrix VMAX 20K and a Symmetrix 40K.

## RecoverPoint VPLEX Write Splitter

Customers that use a VPLEX Local or VPLEX Metro with GenSyncrocy 5.1 have a write splitter that supports up to 2048 Virtual Volumes.

## Enginuity 5876 support

Customers running Enginuity 5876 can use different size LUNs for the production and replica LUNs in the same consistency group that are attached to a RecoverPoint Symmetrix Write Splitter.

## FIPS 140-2 level 1 Compliances

The 140 series of Federal Information Processing Standards (FIPS) are U.S. government computer security standards that specify requirements for cryptography modules. As of December 2006, the current version of the standard is FIPS 140-2, issued on 25 May 2001. RecoverPoint 3.5 is FIPS 140-2 level 1 compliant. All connections to and from RecoverPoint 3.5 are performed over a FIPS-compliant secure channel.

## Dropping of GEN3 RecoverPoint appliance support

Customers running RecoverPoint with GEN1 or GEN3 appliances cannot upgrade to RecoverPoint 3.5 but must stay at their currently supported release. However, these customers can purchase new GEN4 appliances and upgrade their existing configuration by replacing their existing appliances with GEN4 appliances and then having the upgrade performed.

## Total customer experience improvements

RecoverPoint 3.5 has several features that improve the total customer experience. These include:

- **Changes to various RecoverPoint parameters:** RecoverPoint 3.5 lets an authorized administrator change the IP, NTP server, site name(s) and time zone used by RecoverPoint.
- **Log size improvements:** RecoverPoint 3.5 has reduced the size of the logging data necessary and minimized the performance impact of enabling logging. Additionally EMC has improved the performance of the log transfer when they are sent to EMC to resolve a support request.
- **Improvements to Distribution Manager:** RecoverPoint 3.5 includes Distribution Manager 1.1 which has improvements in the installation and initial

configuration phase for RecoverPoint. Distribution Manager 1.1 also includes some changes for RecoverPoint appliance hardware replacement.

- **Support for intelligent fabric operating environments:** RecoverPoint 3.5 adds support for Brocade FOS 6.4.2a, and SAS 3.4.3. RecoverPoint 3.5 also adds support for Cisco NX-OS 5.2.5, and SSI 5.2.4.

## Conclusion

EMC RecoverPoint offers continuous data protection, continuous remote replication, and concurrent local and remote data protection functionalities. With its customer-defined RPOs and RTOs, RecoverPoint allows critical business processes to be available locally for operational recovery, or remotely at a disaster recovery site hundreds or thousands of miles away from the primary site. With support for consistency groups, RecoverPoint is a no-data-loss model with full write-order consistency for replicated volumes that can span multiple heterogeneous storage systems and servers.

## References

More information on EMC RecoverPoint can be found at the RecoverPoint page on EMC.com and in the following documents on the EMC Powerlink® website:

- Improving Microsoft Exchange Server Recovery with EMC RecoverPoint — Applied Technology
- EMC RecoverPoint Family Overview – A Detailed Review white paper
- Improving VMware Disaster Recovery with EMC RecoverPoint – Applied Technology
- Solving Data Protection Challenges with EMC RecoverPoint – Best Practices Planning
- Using EMC RecoverPoint Concurrent Local and Remote for Operational and Disaster Recovery — Applied Technology white paper