EMC RECOVERPOINT FAMILY

Continuous Data Protection for any Point-in-Time Recovery: Product Options for Protecting Virtual Machines or Storage Array LUNs

ESSENTIALS

EMC RecoverPoint Family
- Optimizes RPO and RTO with recovery to any PiT
- Provides local and remote data replication
- Ensures application level recovery consistency at re-start
- Replicates Sync/Async over any distance
- Lowers TCO with WAN efficiency

RecoverPoint for Virtual Machines
- Protects VMware Virtual Machines with VM level granularity
- Integrates with VMware vCenter via a plug-in
- Simplifies OR & DR processes with built-in orchestration and automation
- Supports all storage types

RecoverPoint
- Replicates storage array LUNs
- Supports EMC VMAX 10K, 20K, 40K, VNX series, VPLEX and 3rd party arrays via VPLEX
- Enables VMware SRM recovery to any PiT

Several trends in enterprise IT deployment show no signs of abating. First, the number of mission critical applications and databases is increasing. Second, more of these are being deployed in a virtual environment using hypervisor technologies. Third, the inter-dependency required of applications to fully support business transactions is rising. The combined complexity of all these factors makes it more difficult for IT management to deliver a comprehensive enterprise-class data protection service under existing budgets.

EMC RECOVERPOINT FAMILY

The EMC RecoverPoint® family empowers organizations to protect the growing scale of their physical and virtualized IT infrastructure by simplifying and automating the data protection and recovery workflow for their mission critical applications and data.

The RecoverPoint family also makes Disaster Recovery (DR) and Operational Recovery (OR) easy for organizations with its continuous data protection for recovery to any Point in Time (PiT) optimizing Recovery Point Objective (RPO) and Recovery Time Objective (RTO).

RecoverPoint has established a strong presence and leadership position for block level storage array data protection, while the newest member of the product family, RecoverPoint for Virtual Machines, addresses the need to protect Virtual Machines (VMs) in a VMware virtualized environment.

The RecoverPoint family consists of:

- RecoverPoint for Virtual Machines
- RecoverPoint, with its flexible virtual edition option

RECOVERPOINT FOR VIRTUAL MACHINES

EMC RecoverPoint for Virtual Machines, redefines data protection for VMware Virtual Machines (VMs), enabling local or remote replication with continuous data protection for recovery to any PiT. It is a VMware hypervisor-based, storage agnostic, software only data protection tool with built-in orchestration and automation capabilities accessible via a VMware vCenter plug-in.

RECOVERPOINT

EMC RecoverPoint protects storage arrays LUNs and provides concurrent local and remote data replication with continuous data protection for any PiT Recovery. It supports EMC VMAX 10K, 20K, 40K, VNX series, VPLEX and 3rd party arrays via VPLEX. Integrated with VMware Site Recovery Manager (SRM), it extends the protection capabilities of SRM beyond snapshot.

REDEFINE

DATA SHEET

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BENEFITS

EMC RecoverPoint for VMs Helps Organizations to

- Streamline OR and DR data protection workflow with reliable and repeatable processes

- Respond faster to changing business and data protection needs

- Shorten application development cycles by providing a replica for isolated test and development use

- Enable datacenter migration with minimal interruption

- Leverage offsite replication for backup operations with no impact to the production site

- Empower vAdministrators to meet the required data protection Service Level Agreement (SLA)

COMMON ARCHITECTURE

The two product members share a common architecture but are offered as separate products with independent licensing options. They deliver similar benefits including the ability to:

- Enable Continuous Data Protection for any PiT recovery to optimize RPO and RTO

- Ensure recovery consistency for interdependent applications

- Provide synchronous (sync) or asynchronous (async) replication policies

- Reduce WAN bandwidth consumption and utilize available bandwidth optimally

RECOVER TO ANY POINT IN TIME

RecoverPoint uses a journal-based implementation to hold the PiT information of all the changes made to the protected data. Its replication policy supports a short RPO via journal technology that delivers DVR like roll back in time capability to a selected PiT just seconds before data corruption occurred, reversing the error in the recovery process.

RECOVER WITH CONSISTENCY

With RecoverPoint technology, data is protected by Consistency Group (CG), preserving relational dependencies during recovery such as those of a database and a database log. The CG depends on the use of journal volumes which hold all the historical changes in order to preserve write order fidelity. Furthermore, the CG Sets feature enables recovery activities to be performed to the same consistent PiT across all data in the set simultaneously. Both RecoverPoint for VMs and RecoverPoint are designed to ensure recovery consistency for one application or inter-dependent applications with the CG and CG sets options.

REPLICATE WITH WAN EFFICIENCY AND RESILIENCY

The RecoverPoint family delivers remote data replication over WAN, sync or async, at lower costs. Its built-in WAN optimization consists of compression and advanced bandwidth reduction algorithms that reduce WAN bandwidth consumption up to 90%. WAN optimization also ensures replication robustness with an improved resiliency that sustains 50% longer Round Trip Time (RTT) and higher packet loss to fully utilize the available bandwidth.

RECOVERPOINT FOR VIRTUAL MACHINES: SIMPLE, EFFICIENT & PROVEN

Architecturally, RecoverPoint for Virtual Machines consists of a VMware vCenter plug-in, a RecoverPoint write-splitter embedded in vSphere hypervisor, and a virtual appliance, all comprehensively integrated in the VMware ESXi server environment.

RecoverPoint for Virtual Machines protects VMs with VM level granularity and replicates VMs (VMDK and RDM) accessed by any type of storage connectivity supported by VMware.

With built-in orchestration and automation capabilities fully integrated with VMware vCenter via a plug-in, RecoverPoint for Virtual Machines empowers vAdministrators with the visibility and control to protect single or multiple VMs locally or remotely to the target site. vAdministrators can perform automated discovery, provisioning and orchestration for DR test, failover and failback to any PiT, all from the vCenter Web Client GUI.

With CG and CG sets, vAdministrators can perform recovery to a selected PiT with consistency across interdependent applications that span across VMware ESX clusters. For example, businesses can take full advantage of this powerful feature to properly restore the operation of an end-to-end business transaction process that includes a sales order system, payment transactions, inventory management and supply chain management deployed in VMs.
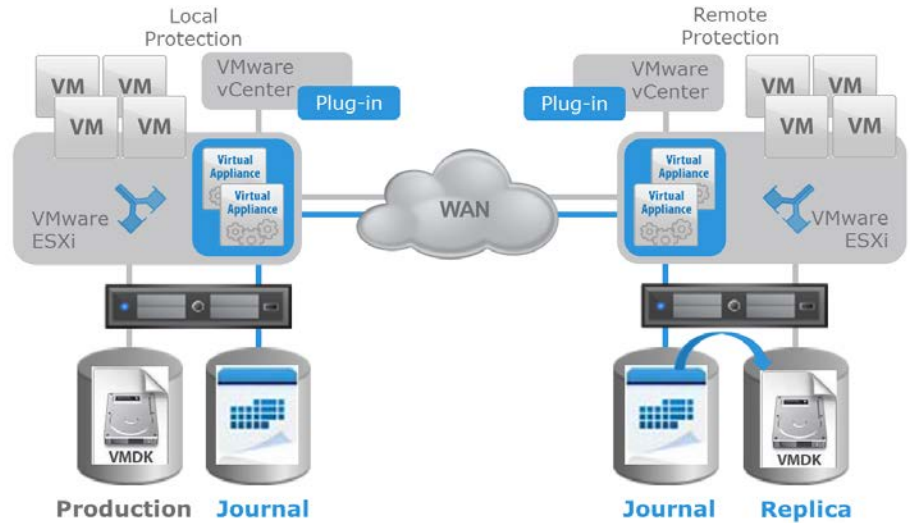

Figure 1: Illustration of RecoverPoint for VMs protecting VMware VMs

RECOVERPOINT PROTECTS STORAGE ARRAY LUNS

RecoverPoint supports concurrent local and remote replications over any distance, sync or async.   It makes data loss reversible and outages transparent so that organizations can achieve the required RPO and RTO goals.   Architecturally it consists of an EMC Unisphere management GUI, a physical RecoverPoint Appliance (RPA) or a virtual appliance, and the write-splitter embedded in the supported EMC storage arrays.
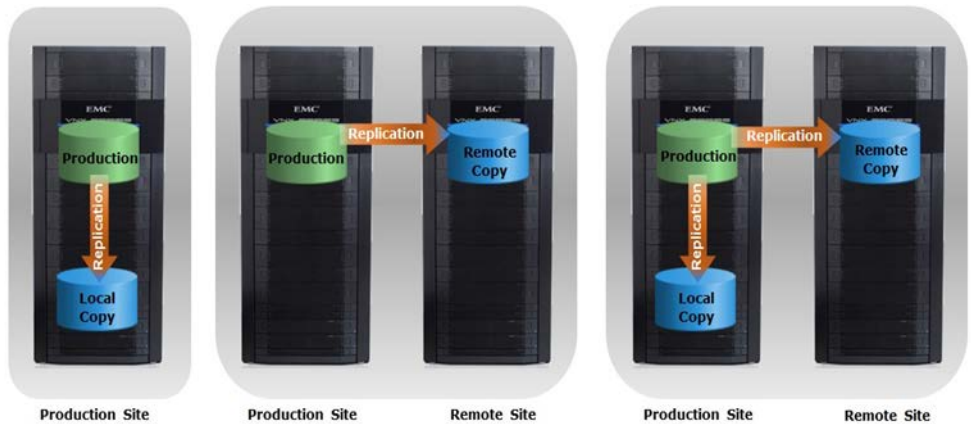

Figure 2: Illustration of local replication, remote replication, and concurrent local and remote replication

In addition to the benefits common to the RecoverPoint family, it offers the following features:

SNAP AND REPLICATE

The appliance leverages the EMC VNX array snapshot capability to enhance asynchronous replication with a user defined interval for replication. This Snap and Replicate feature adds intelligence to the asynchronous replication policy to ensure the capture of data protection points effectively and efficiently under a high data load.

MULTI-SITE SUPPORT

The multi-site support in a 4:1 fan-in configuration enables a centralized DR site implementation for branch office protection.   A 1:4 fan-out configuration provides multiple replications of production data to different target devices or sites for additional data protection or to support isolated software development test.

METROPOINT TOPOLOGY

With the introduction of MetroPoint topology, EMC raises the bar by delivering the industry's first and only solution for 3 datacenter availability and disaster recovery that can sustain 2 site failures. MetroPoint topology is enabled by combining the best of EMC VPLEX Metro, an active-active multi-site infrastructure, and RecoverPoint, for continuous data replication to the remote 3rd site. Comprehensive data protection continues even under the complete failure of one of the Metro region sites.   The simultaneous protection of the Metro region by a distant 3rd site using RecoverPoint provides any PiT recovery from operational and disaster outages.
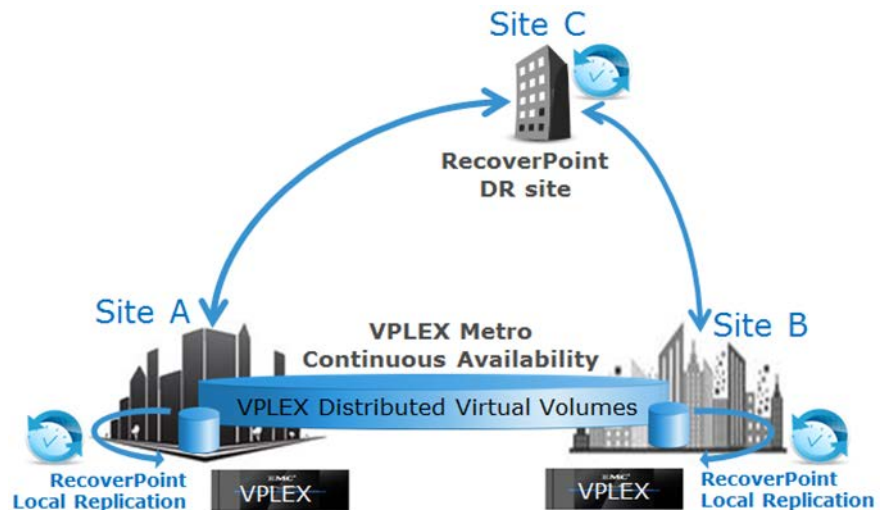

Figure 3: Illustration of MetroPoint topology

MetroPoint topology helps organizations to achieve a new level of continuous availability and data protection that completely closes the RPO/RTO gap, which no other vendor in the industry can claim. MetroPoint topology deployment includes:

- VPLEX Metro with Oracle RAC over two clustered datacenters in the metro region and a 3rd distant site for DR protection

- VPLEX Metro with SAP HA for active-active multi-site infrastructure over distance in the metro region and a 3rd distant site for DR protection

- VPLEX Metro with Microsoft Hyper-V Live Migration, Microsoft Failover Cluster and AlwaysOn Availability Groups with a 3rd distant site for DR protection

MetroPoint consistency group, built on the existing consistency group feature, is designed specifically for MetroPoint topology to protect applications and their data and ensure consistent recovery at re-start.

RECOVERPOINT VIRTUAL EDITION FOR VNX SERIES

RecoverPoint virtual edition consists of RecoverPoint Appliance (RPA) software deployed as a virtual appliance in an existing VMware ESXi VM environment. This software option is currently available for the EMC VNX series equipped with iSCSI support.

RecoverPoint virtual edition is a flexible deployment option which offers maximum simplicity with no dependency on a physical appliance, lowering TCO.
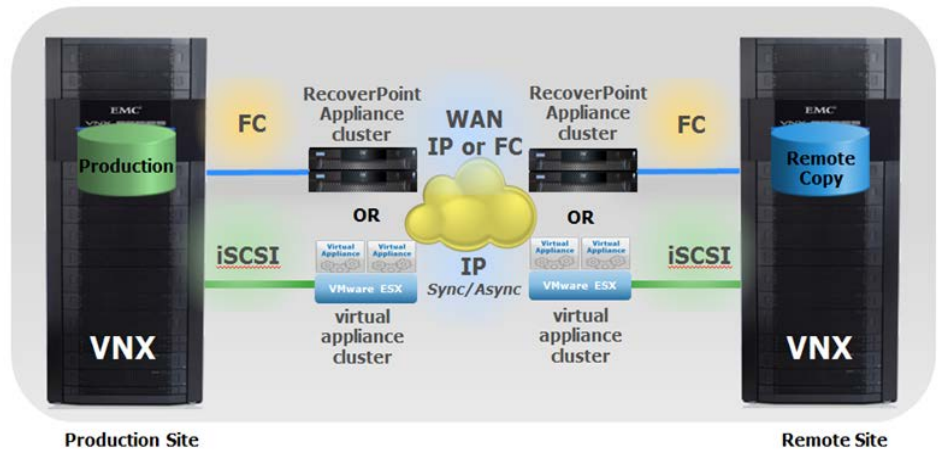
Figure 4: Illustration of RecoverPoint deployment options for EMC VNX

For more information, explore and compare the latest RecoverPoint family in the EMC Store.

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