DELL EMC

DELL EMC RECOVERPOINT

Continuous Data Protection for Any Point in Time Recovery

ESSENTIALS

With more than 30,000 clusters installed worldwide RecoverPoint is a trusted and proven operational and disaster recovery solution. RecoverPoint recently crossed half a billion run hours protecting more than an Exabyte of mission critical data

- Achieve the required RPOs and RTOs with operational and disaster recovery to any point in time
- Protect mission critical applications and data in physical and virtual environments
- Offer advanced MetroPoint topology with VPLEX to provide disaster recovery for metro distance active-active datacenters with a distant third datacenter capable of protecting either of the active datacenters

OVERVIEW

Dell EMC RecoverPoint provides continuous data protection for comprehensive operational and disaster recovery. It supports Dell EMC XtremIO, UNITY, VMAX, VNX, ScaleIOand major 3rd party arrays via VPLEX.

RecoverPoint delivers 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

- Snap-Based replication (SBR) for VNX, XtremIOand VMAX3/AF

- Reduce WAN bandwidth consumption and utilize available bandwidth optimally

- Offer multi-site support with 1:n fan-out replication for higher protection and test operations. Also, n:1 fan-in for centralized DR site protecting multiple branch offices

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 Dell EMC Unisphere management GUI, a physical RecoverPoint Appliance or a Virtual RecoverPoint Appliance (vRPA *VNX/Unity relevant only), and the write-splitter embedded in the supported Dell EMC storage arrays. With Dell EMC XtremIO and for VMAX3/AF, the data replication is a splitter-less implementation achieved by leveraging the highly efficient array-based snapshot technology native to the XtremIO platform.
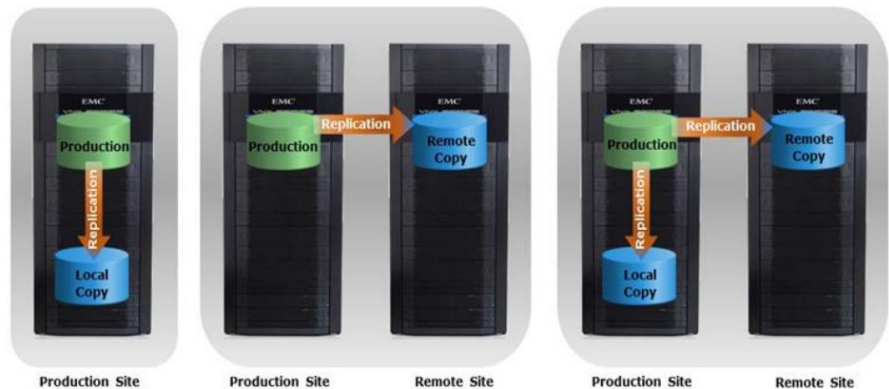
Figure 1: Illustration of local replication, remote replication, and concurrent local and remote replication

SOLID RECOVERY CAPABILITIES

RECOVER TO ANY POINT IN TIME

RecoverPoint uses a journal-based implementation to hold the PiT information of all 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 for recovery just seconds before data corruption occurred, reversing the error.

RECOVER WITH CONSISTENCY

With RecoverPoint technology, data is protected by Consistency Group (CG), preserving order consistency across the volumes contained within it. A journal, consisting of dedicated journal volumes, is assigned to each CG copy to maintain the PiT roll back capability otherwise known as a protection window. RecoverPoint is designed to ensure recovery consistency for one application or inter-dependent applications using a single CG or using separate CGs as part of a Group Set.

DEPLOYMENT OPTIONS TO MEET YOUR UNIQUE PROTECTION REQUIREMENTS

MULTI-SITE SUPPORT

The multi-site support of RecoverPoint in 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. A 4:1 fan-in configuration enables a centralized DR site implementation for branch office protection. Also, multi-site along with splitter sharing allows for more fan-in and fan-out topologies.

METROPOINT TOPOLOGY

With the introduction of MetroPoint topology, Dell 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 Dell 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.
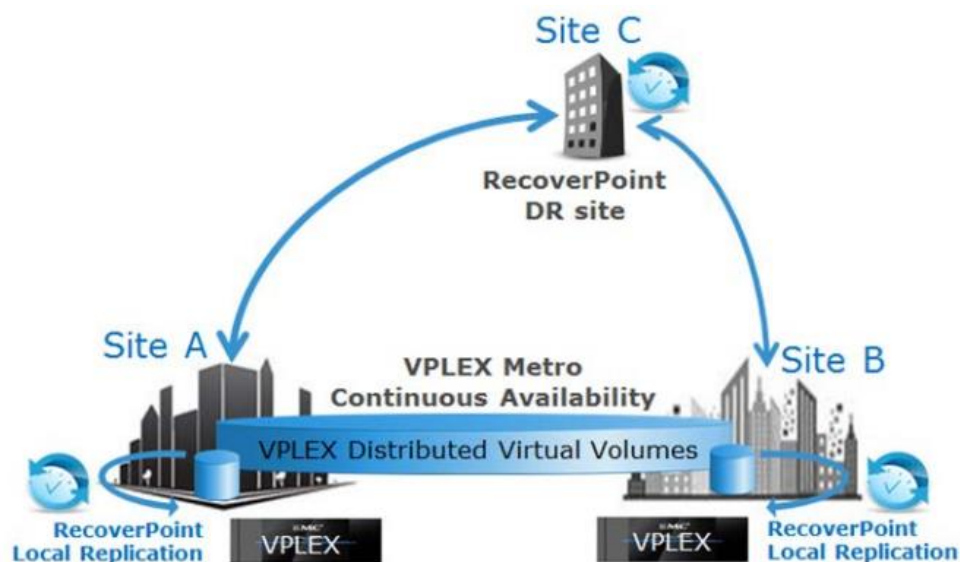
Figure 2: Illustration of MetroPoint topology

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 Always On 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.

REPLICATE WITH WAN EFFICIENCY AND RESILIENCY

RecoverPoint delivers remote data replication over WAN, at lower costs when replicating asynchronously. Its built-in WAN optimization consists of advanced bandwidth reduction algorithms such as write-folding, deduplication and compression 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 lag optimization which prioritizes among async CGs on the same RPA that competes for WAN resources.

EXTENSIVE ARRAY SUPPORT

HETEROGENEOUS DELL EMC ARRAY TYPE SUPPORT

RecoverPoint protects storage arrays LUNs allowing data replication of mixed Dell EMC array types, in that the target array can be different from the source array type. This heterogeneous array support allows production environments using high performance XtremIO arrays to be protected with a more economical storage array platform at the remote site, helping to maintain data protection and keep the DR budget under control.

SNAP BASED REPLICATION

The Snap and Replicate feature is enabled by leveraging the intelligent array-based snapshot capability available in Dell EMC VNX, XtremIO and VMAX3/AFplatforms. It enhances asynchronous replication with a user defined interval for replication. For Dell EMC XtremIO and for VMAX3/AF, a low latency and high performance all flash array, a minimum of 60 seconds RPO is required.

RECOVERPOINT VIRTUAL EDITION FOR UNITY AND VNX

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 UNITY, VNX, VNXe3200 and VNX-F 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.
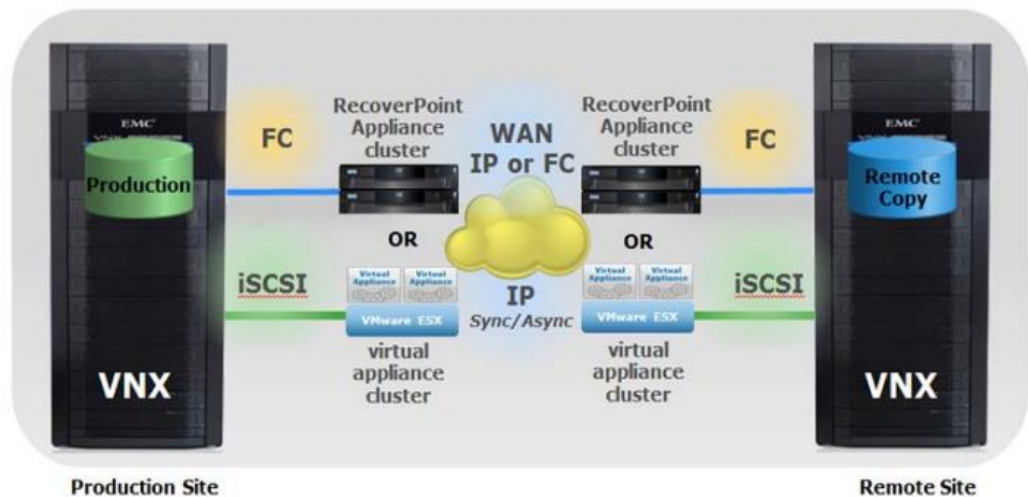

Figure 3: Illustration of RecoverPoint deployment options for Dell EMC VNX

TAKE THE NEXT STEP

Contact your Dell EMC sales representative or authorized reseller to learn more about how Dell EMC RecoverPoint can benefit your organization.

Also, see our solutions in the Dell EMC Store at https://store.emc.com/RP