



# Replay for SQL

Replay for SQL is a real-time SQL server backup and recovery solution developed to assure comprehensive backup and disaster recovery -- including system and user databases, SQL binaries and the server -- making it possible to restore both servers and databases in just minutes. Replay for SQL does not interrupt production available during the backup process and delivers incremental block-based image recovery points throughout the day, automatically testing each backup for SQL corruption. The mountability checks eliminate the need for manual testing and provide assurance that the backups are valid and will recover successfully.

## Replay for SQL delivers:

- ◆ Mountable recovery points for off-host database management
- ◆ Automatic database testing
- ◆ Point and click creation of test virtual machines
- ◆ Ability to recover images from bare metal to dissimilar hardware
- ◆ Self manages backup / retention policies
- ◆ Eliminates complicated backup scheduling and ensures strict adherence to organization policies

## Features

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- ◆ Continuous imaging of SQL servers to a centralized management server
- ◆ Unique compression and de-dup reduces disk space costs associated with DR by up to 90%
- ◆ Live rollbacks of volumes
- ◆ Bare metal recoveries of entire server – available with dissimilar hardware support
- ◆ Read/Write mountable recovery points for data mining and database maintenance purposes
- ◆ Define an optional backup window during which Replay VSS snapshots are suspended
- ◆ Export recovery points to bootable virtual machines
- ◆ Scalable solution, designed for transactional application environments with low impact to production servers
- ◆ Flexible backup retention policies
- ◆ Centralized backup and corruption monitoring status alerting
- ◆ Supports Windows 2003 and Windows 2008 application servers
- ◆ Off host processing ( RPO ) – only 1-2% overhead on production servers
- ◆ Transportable image exports to NAS, USBs
- ◆ Push button failover to virtual and physical standby – Virtual high availability & Physical high availability
- ◆ Supports p2v,v2v,v2p,p2p migrations
- ◆ Mountable recovery points - point-in-time views
- ◆ Exception alerting to Windows event log or to e-mail
- ◆ Network login credentials and IP configuration built into RRC Builder ISO files
- ◆ Application log truncation for SQL
- ◆ Supports Microsoft SQL Server 2005, Microsoft SQL Server 2008, and Microsoft SQL Server 2000, SP4

# Replay for SQL with Enhanced Disaster Recovery (DR)

Replay for SQL with Enhanced Disaster Recovery includes additional features that increase the flexibility of recovery and improve speeds and feeds

## Leveraging Virtualization for DR

Replay for SQL with Enhanced DR provides a centralized backup and recovery solution that automatically and continuously images your Windows virtual workloads delivering accelerated application backups and disaster recovery while reducing the load on production VMware ESX, VMware Server and Microsoft Hyper-V hosts.

- ◆ Protect your mission-critical SQL workloads including the operating system, application and the application data with a single centralized solution.
- ◆ Decrease planned and unplanned downtime for improved business continuity.
- ◆ Reduce storage and other backup related costs.

### Step 1

A Replay agent is installed on the SQL server. The agent is responsible for continually collecting volume block-level changes for the entire virtual machine and ensuring that the snapshots are application consistent. The block changes are transferred to the Replay server at the rate of 2GB/minutes with only a 1-2% impact on the guest while delivering 96 snapshots per day. The agent supports 2003/2008 Windows Server workloads including Supports Microsoft SQL Server 2005, Microsoft SQL Server 2008, and Microsoft SQL Server 2000, SP4.

### Step 2

The Replay server maintains the snapshot as incremental images that are compressed and de-duplicated. The compression rate is between 50-80% depending on the data formats. A retention policy can be defined to control how long then recovery points are available for recovery and historical discovery needs. The default is 1 month. The individual data stores are validated against data store corruption. All of the backup processing is off-loaded from the production server improving the performance of SQL.

### Step 3

With VMware instantiations, the images can be automatically exported and continuously maintained as VMware virtual standby environments enabling push-button workload failover directly from VMware ESX and VMware Server 2.0 supported file systems. The images can be used for V2P, P2V, V2V migrations or for bare-metal to individual file level recoveries.

Replay for SQL with Enhanced Disaster Recovery enables DR Windows application workloads from a centralized Replay server by mirroring the image of the protected server to another physical or virtual server in real-time. The images are continuously mirrored from the Replay server directly to a standby server in a secure and bandwidth-efficient way. The standby server is an exact clone of the protected server, so in the event of an emergency, simply boot the standby server for full recovery. This enables risk-free approach for testing DR preparedness, patches and updates for your mission-critical applications. Virtual machines are automatically created and maintained directly on an ESX™ VMFS file system, eliminating the need to migrate virtual machines in a disaster scenario.

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