

Simplified Oracle Copies with EMC Replication Manager

The Benefits of EMC Replication Manager include:

- Quicker Oracle snaps/clones
- Easy - No scripting required
- Non Invasive - No impact to production
- Automation and scheduling
- Application consistency
- Simplified recovery
- Self Service - Easy to use for both the Oracle DBA and the SAN Administrator

Automate Oracle Copies in Physical and Virtual Environments

EMC Replication Manager (RM) is designed to automate the creation, management, and scheduling of snaps and clones created on EMC VNX, VNXe, VMAX and VPLEX arrays. Replication Manager uses EMC copy technology including SnapView, Timefinder and RecoverPoint to enable DBA's to create their own copies without the need for scripting or becoming an expert. RM's easy to use wizard driven GUI's guide the DBA through the process allowing you to create copies of Oracle without interruption to the production environment. In addition, Replication Manager automatically discovers Oracle databases and table spaces presenting the DBA with visual selection for choosing what to create copies of. Replication Manager integrates with Oracle by supporting both hot back and cold backup. For application consistency, Replication Manager interfaces with Oracle's "hot backup" API to quiesce the database and create a copy that can be used to quickly recover and restart a database in the event of a disaster. In addition, Replication Manager supports and simplifies the copying of Oracle Databases residing on EMC arrays using "Consistent Split" features which allow a single set of LUNs to be split instantaneously, guaranteeing I/O consistency at the hardware level.

The Benefits of EMC Replication Manager include:

- Dramatically reduce the time it takes to make copies of Oracle databases
- A wizard driven GUI easily guides you through the creation snaps and clones with no impact to production environments
- Automate and schedule Oracle snaps for easy refresh of non-production environments
- Streamline and automate the workflow for creating SAP snaps
- Create "Application Consistent" Oracle copies for backup and disaster recovery
- Simplified "restore to production" process reduces recovery time in the event of a problem

Clones and SNAP's – Valuable Tools for any Oracle Shop

Oracle Database Server is key component to many of the largest enterprise applications. Consequently, Oracle DBA's are constantly seeking tools that will help them reduce backup windows and streamline the copy creation process to improve the efficiency of the business. Most organizations that run Oracle regularly create disc based snap and clones of the database for multiple purposes.

These include:

- Cloning a production database for testing , or so that development can safely apply changes without risking the production environment
- Cloning or creating copies of a "Test" instance to apply patches supplied by Oracle support
- Creating copies for business intelligence or data mining analysis
- Creating copies for disaster recovery or backup

As many of these processes involve a test/development environment, the Oracle DBA is tasked with maintaining a whole separate environment that needs to be kept in synch with production. The DBA often chooses to regularly snap Oracle instances and then apply those snaps to the test environment. These processes and task are laborious and often involve time and effort on both the SAN administrator and Oracle DBA. Moreover, if the enterprise is running a large federated business application such as SAP, the creation of copies becomes a necessary but very complex and time consuming task.

ORACLE AND SAP INTEGRATION

Replication Manager has been certified by SAP as a solution which integrates with the SAP BRbackup API to simplify and automate the process of copying SAP/Oracle databases running on Linux. Customers use RM to cut backup windows and simplify SAP backup workflows without interruption to SAP production.

SAP Certified

Integration with SAP NetWeaver®

Replication Manager adds value in SAP/Oracle/Linux environments by:

- Saving time and reduces cost by automating the copy workflow
- Making “application consistent” copies of SAP for testing, development and disaster recovery
- Reducing the time and simplifies the workflow for creating clones
- Shortening RTO (Recovery Time Objective) in the event of an outage
- Restoring SAP in less than half the time it would normally take without Replication Manager

NON-INVASIVE BACKUPS FOR ORACLE

DBA's use Replication Manager to create a copy of a production Oracle database and mount that replica to another host, and then run a backup on that mount host. This reduces the load on the production server by offloading the backup process to a production mount host. In this scenario, the copy created should be “roll-forward capable” so the production database can be restored later to any point in time using the archived Oracle logs.

Replication Manager provides the following Oracle options:

- Consistent Split online copies using hot backup mode
- Non-consistent split online copies using hot backup mode
- Consistent split copies using offline backup mode
- Non-consistent split copies using offline backup mode

Oracle backup technology provides a hot-backup mode via an API to ensure the consistency of the data even while the database remains online. Therefore, to support the non-invasive backup use case customers can choose to create a replica with Oracle online in hot backup or with the Oracle database offline during the copy process.

OPTIONS FOR ORACLE COPIES

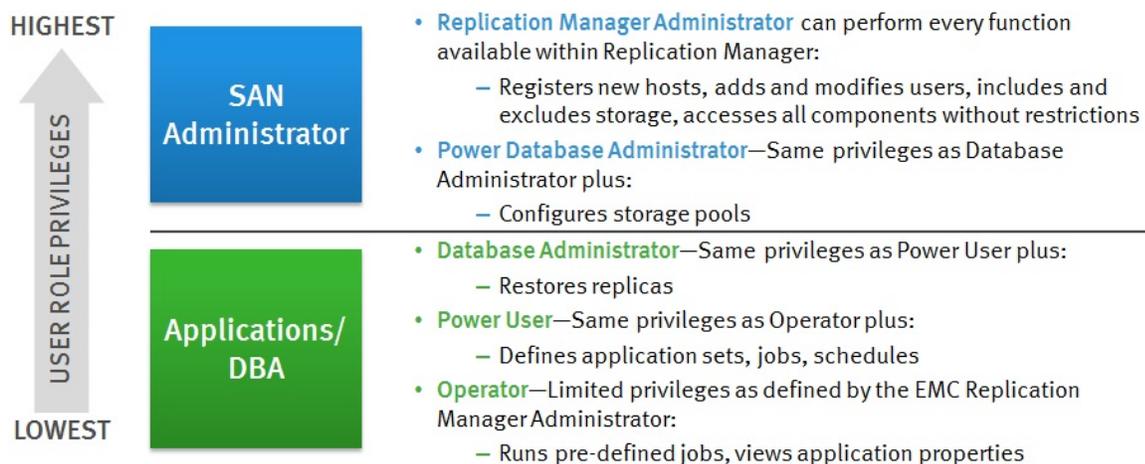
Replication Manager offers a variety of Oracle specific options as indicated in the table below. The table show which Oracle objects are copied based on the option selected.

Options/Objects	Data	Redo	Ctrl	Arch
Consistent Split Hot backup	✓	✓	✓	Optional
Consistent Split No Hot backup	✓	✓	✓	Optional
Consistent Split (Offline)	✓	✓	✓	Optional
No Consistent Split Hot backup	✓	✗	✗	Optional
No Consistent Split Offline	✓	✗	✗	Optional
No Consistent Split No Hot backup	✓	✗	✗	Optional

Key: ✓ = Replicated; ✗ = Not replicated

SAVE TIME AND MAXIMIZE EFFICIENCY WITH SELF-SERVICE COPIES

Replication Manager empowers Oracle DBA's by enabling them to create, manage, and schedule their own copy jobs. On the same note, the Array Administrator can save time by confidently delegating privileges based on the roles in the table below.



RAC SUPPORT

RM supports Oracle ASM (Automatic Storage Management) and detects if Oracle ASM is relevant for the selected databases which are selected for copying. If so, RM prompts the user for the required ASM credentials. Replication Manager supports and communicates with both the Oracle Database and ASM disk groups. In addition RM is “cluster aware” for the copying of databases residing on Oracle RAC (Real Application Clusters). During copying, if the node used for RM application set creation is not accessible, Replication Manager creates the copy on another node in the RAC.

DISASTER RECOVERY/ MOUNTING AND QUICK RESTORE OF ORACLE COPIES

Replication Manager empowers DBA's to quickly restore entire replicas, table spaces, data files, and logs back to production easily and with confidence. In addition, copies can be mounted to a separate mount host if the DBA chooses.

LEARN MORE

EMC Replication Manager on www.emc.com

Everything Oracle at EMC Online Community

SOLUTION
OVERVIEW

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To learn more about how EMC products, services, and solutions can help solve your business and IT challenges, [contact](#) your local representative or authorized reseller—or visit us at www.EMC.com.

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