

Hitachi Storage Adapter for Oracle Recovery Manager (RMAN) enables you to manage backup and recovery operations through the Oracle Enterprise Manager Cloud Control. It reduces the backup window for production databases and minimizes the performance impact on production systems during backup operations.

## Hitachi Storage Adapter for Oracle Recovery Manager

### Integrated Backup, Recovery and Restore for Oracle Databases

Data replication is an essential ingredient of a modern data management and protection strategy. Rapid data replication enables business continuity and risk mitigation processes. For critical application processing, testing and development of new applications, zero-downtime recovery, data migration and backup operations, speedy replication is a must.

Hitachi Storage Adapter for Oracle Recovery Manager provides out-of-the-box integration to Oracle Recovery Manager and Oracle Enterprise Manager Cloud Control System. It allows you to manage storage backup and recovery from within Oracle Enterprise Manager Cloud Control System. The solution combines Hitachi storage and Oracle technologies for optimal backup and recovery of small or large data sets, enabling myriad of data protection and recovery services.

### Increase Data Availability and Ensure Business Resilience

By combining the solution with in-system replication software you gain fast replication in a complete, high-performance, backup and recovery solution for Oracle databases. As shown in Table 1, Hitachi offers a comprehensive portfolio of replication and data protection solutions. Design and implement a data migration and replication strategy that best meets your organization's unique business resiliency, data availability and quality-of-service needs.

When used with the in-system replication software, Hitachi NAS File Clone and Hitachi Universal Replicator, the solution provides a complete, high-performance, backup and recovery solution for your Oracle databases. You can realize significant storage savings, leading to a higher return on investment.

By providing nondisruptive, high-speed data replication within any Hitachi storage or converged infrastructure solution, these data protection services enable immediate use of data. Use data sets for more than backup or replication. Employ them in decision support or big data analytics, software testing and development, and, of course, all data protection operations.

### INTEGRATED BACKUP AND RECOVERY CAPABILITIES

Target Type	Target Status	Target Name
Hitachi RMAN Adapter for Oracle Database Image	OK	Am_20441_C08_T071
EM Service	OK	EM Console Service
EM Service	OK	EM JPS Service
EM Service	OK	EM ManagementBackup
EM Service	OK	EM ManagementBackup
Oracle Fusion Middleware Farm	n/a	EMSC_6200000
Application Deployment (1)	OK	Management Services and Repository
Metadata Repository (2)	OK	oem121.sse.his.com
Oracle WebLogic Server (2)	OK	oem121.sse.his.com:3872
Oracle Authorization Policy Manager	OK	Oracle Management Service
Oracle Fusion Middleware Farm (1)	OK	oem121.sse.his.com:4189_Management_Ser...
Oracle HTTP Server (1)	OK	oem121.sse.his.com:4189_Management_Ser...
Oracle WebLogic Domain (1)	OK	oem121.sse.his.com:4189_Management_Ser...
Oracle Home	n/a	oem121_s_ora12c1
Hitachi RMAN Adapter for Oracle Database Image	OK	PL_TierTarget1
Oracle Home	n/a	hitAppServer12_1_3_0_ora12c1_9612
Oracle Home	n/a	red1er12c1_22_ora12c1

- Simplifies Oracle database backup and recovery management.
- Reduces production systems backup duration from hours to minutes.
- Minimally impacts production database performance.
- Delivers full backup and incremental backups to disk and tape.
- Supports multiple databases.
- Features hot and cold database, create, backup and restore operations.
- Enables granular recovery of database, table space, file and block.
- Provides block corruption detection.

## Technical Considerations

Hitachi Storage Adapter for Oracle Recovery Manager is available on the following Hitachi storage systems: Unified Storage family; Unified Storage VM; Virtual Storage Platform (VSP), VSP G200, VSP G400, VSP G600, VSP G800 and VSP G1000; and Hitachi NAS Platform. It is supported on various operating systems, including Red Hat Enterprise Linux 6.3 (64-bit version), Red Hat Enterprise Linux 6.5 and 6.6, and Oracle Enterprise Linux 6.5 and 6.6. Table 2 shows the availability of Hitachi replication software and Oracle database software for this adapter.

## Solutions for Oracle Databases

With over 20 years of Oracle expertise, Hitachi Data Systems has solutions, services, tools and expert system knowledge to support the largest and most demanding Oracle customers worldwide.

## Services to Help You Succeed

Hitachi Data Systems Global Services offers experienced Oracle database solution consultants, proven methodologies and a comprehensive services portfolio to

assist you in implementing Hitachi products and solutions. For more information, visit [www.hds.com/services](http://www.hds.com/services).

## For More Information

To learn more about how Hitachi Data Systems can help you with database storage management and to read more about our solutions for Oracle, visit [www.hds.com/oracle](http://www.hds.com/oracle). Or, contact your local sales representative or solutions consultant.



TABLE 1. HITACHI REPLICATION AND DATA PROTECTION SOLUTIONS

Hitachi Solutions	Function
ShadowImage Heterogeneous Replication (for enterprise systems)	Storage-based solution creates RAID-protected duplicate volumes in all Hitachi storage systems for mainframe, open system environments.
ShadowImage Replication (for modular systems)	In-system, nondisruptive, host-independent, data-replication software rapidly copies mission-critical data within a Hitachi storage systems.
Thin Image	In-system snapshot software provides logical, change-based, point-in-time data replication in Hitachi storage systems for immediate business use.
Copy-on-Write Snapshot	Delivers in-system snapshot data replication; significantly reduces capacity required for snapshots.
NAS File Clone	Storage-based file cloning software produces quick, space-efficient writeable snapshots of entire file sets located under a directory.
Universal Replicator	Storage-system-based replication solution provides asynchronous remote copies, over any distance, for Hitachi enterprise storage environments.

TABLE 2. HITACHI STORAGE ADAPTER FOR ORACLE RECOVERY MANAGER: REPLICATION AND DATABASE SOFTWARE AVAILABILITY

Hitachi Replication Software	Supported Storage
ShadowImage Replication	Hitachi Unified Storage (HUS), HUS VM, Hitachi Virtual Storage Platform (VSP) family, including VSP G200, VSP G400, VSP G600, VSP G800 and VSP G1000
Universal Replication	HUS VM
NAS File Clone	Hitachi NAS Platform
Copy-on-Write Snapshot	HUS, VSP
Thin Image Snapshot	HUS, HUS VM, VSP, VSP G200, VSP G400, VSP G600, VSP G800, VSP G1000
Oracle Database Software	
Oracle Database 11g and 12C (Linux Only): both Single Instance and Real Application Cluster (RAC).	
Oracle Recovery Manager (RMAN) must set up before Hitachi Storage Adapter for Oracle Recovery Manager is used.	
Oracle Automatic Storage Management (ASM) must set up before Hitachi Storage Adapter for Oracle Recovery Manager (only on Linux) is used.	
Oracle OEM 12c Cloud Control: Required for RMAN OEM plug-in mode of operation only. Oracle Database 11g and 12C (Linux Only): both Single Instance and RAC.	

### @Hitachi Data Systems



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