

Hitachi Storage Adapter for Oracle Recovery Manager

v06.0.0
Release Notes

Contents

About This Document	2
Intended Audience	2
Getting Help	2
About This Release	3
Supported Hardware and Software	3
New Features and Important Enhancements	7
Known Problems	7
Documentation	8
Product Licensing	8
Copyrights and Licenses	9

About This Document

This document provides the latest information about the Hitachi Storage Adapter for Oracle Recovery Manager version 06.0.0. It includes information that was not available at the time the technical documentation for this product was published, as well as a list of known problems and solutions.

Revision	Date
RN-90ADPTR009-09	December 2014

Intended Audience

This document is intended for customers of the Hitachi Storage Adapter for Oracle Recovery Manager. Most customers are database administrators or perform similar roles.

Getting Help

The Hitachi Data Systems Support Center staff is available 24 hours a day, seven days a week. Provisions for patches and fixes are restricted to normal business hours, 8 a.m. to 5 p.m. PST.

If you need technical support, log on to the Hitachi Data Systems Portal for contact information: <https://portal.hds.com>. If you purchased this product from an authorized Hitachi Data Systems reseller, contact that reseller for support.

Before calling the Hitachi Data Systems Support Center, please provide as much information about the problem as possible, including:

- The circumstances surrounding the error or failure.
- The exact content of any error message(s) displayed on the host system(s).

About This Release

This release note covers the release of Hitachi Storage Adapter for Oracle Recovery Manager v06.0.0 for Oracle database backups.

Supported Hardware and Software

Note This release supports the software and hardware listed below.
Hardware or software not listed is not supported in this release.



Hardware Requirements

Item	Minimum Requirements	Note
Servers	Two servers: production and backup	
CPU	1.2GHz or faster Intel/AMD processor for Linux or PowerPC for AIX	Recommended: Four CPUs at 500MHz each
Memory	4 GB or more	
Graphics	1024x768, 24-bit color or more	
HDD Capacity	1GB	>=400MB on the drive that has the $\${TMP}$ directory
Network	Gigabit connection recommended	

Host Interface

Interface	Supported
FC	X
iSCSI	X

Device Type

Device Type	Supported
Disk*	X

*Device types other than disks (such as third-party tape devices and corresponding libraries) have not been tested.

Volume Type

Volume Type	Supported
Normal	X
HDP	X

Software Requirements

The Hitachi Adapter for Oracle RMAN must be installed on a Linux/AIX OS that is under Oracle Enterprise Manager 12c Cloud Control for running as an OEM plug-in. Note the following minimum requirements.

Category	Software Requirements
General	You must set up Oracle Recovery Manager (RMAN) before Hitachi Adapter for Oracle RMAN is used. For Linux platforms, you must set up Oracle Automatic Storage Management (ASM) before Hitachi Adapter for Oracle RMAN is used.
	Red Hat Enterprise Linux version 6.3.
	AIX 7.1TL02 or higher. 64-bit version only.
	For AIX platforms, the Oracle DB is created on JFS2 File System.
	Oracle Enterprise Manager 12c Cloud Control is required for RMAN OEM plug-in mode of operation only
	Command Control Interface (CCI) 01-32-03/03 or higher. Must be installed and configured. See the <i>Hitachi Command Control Interface Installation and Configuration Guide</i> for instructions.
Oracle Database 11g (Single Instance or RAC)	Certified software stack for OMS Host: 11.2.0.3 Clusterware (ASM), 11.2.0.3 DB for OMS/OMR, OEM12c Cloud Control version 12cr2.
	Certified software stack for OMA Host: 11.2.0.3 Clusterware (ASM), 11.2.0.3 DB, OEM12c Agent 12cr2.
	Oracle Database 11.2.0.3 Single Instance
	Oracle Real Application Cluster Support Version 11.2.0.3 (Linux only)
Oracle Database 12c	Certified software stack for OMS Host: 12.1.0.1 Clusterware (ASM), 11.2.0.3 DB for OMS/OMR, OEM12c Cloud Control version 12cr3.
	Certified software stack for OMA Host: 12.1.0.1 Clusterware (ASM), 12.1.0.1 DB, OEM12c Agent version 12cr3.
	Oracle Database 12.1.0.1 Single Instance.
	Oracle Real Application Cluster Support Version 12.1.0.1 (Linux only)

Server OS

OS Version	Supported
Red Hat Enterprise Linux 6.3	X
AIX 7.1 TL02 or higher 64 bit version	X

Storage Models

Model	Micro Version	Supported
Hitachi Unified Storage Series	0977/A-S	X
Hitachi Unified Storage VM	73-03-09-00/00	X
Virtual Storage Platform	70-06-21-00/00	X
Virtual Storage Platform-G1000	80-01-42-00/00	X

License Key

Copy Method	Platform	Supported
Hitachi Copy-on-write Snapshot Software	VSP, HUS	X
Hitachi ShadowImage software	VSP, VSP-G1000, HUS VM, HUS	X
Hitachi ThinImage Snapshot software	VSP, VSP-G1000, HUS VM, HUS	X

Replication Software

Replication Software	Category	Supported
Hitachi ShadowImage in-system replication	HUS, VSP, HUS-VM, VSP-G1000	X
Hitachi Copy-on-write Snapshot	HUS, VSP	X
Hitachi Thin Image Snapshot Software	HUS-VM, VSP, VSP-G1000	X

New Features and Important Enhancements

- 11g and 12c Databases, both Single instance and RAC Database Support
- Non-ASMLIB support on RHEL 6.x using udev
- File System Database support (JFS2 on AIX only)
- Hitachi Universal Volume Manager (H-UVM) support
- Cold Backup and Restore Support
- Multiple Database Support

Known Problems

This section lists all known problems that are associated with the Hitachi RMAN Adapter (v06.0.0) and are not fixed with this release.

Known Oracle Issue: For RMAN to work properly on AIX when NFS mounts the file systems and uses them, the minimum required size for read and write buffers (rsize and wsize) should be equal to or more than 32768 bytes.

Hitachi Universal Volume Manager: When running the RMAN adapter in an HUVM (Hitachi Universal Volume Manager) environment on an IBM AIX platform, random authentication failures are possible, causing the adapter scripts to hang. If this happens, interrupting the script and re-running may solve the issue.

*Bash Code Injection Vulnerability (ShellShock bug **CVE-2014-6271**):* RMAN adapter relies heavily on running bash shell scripts. Bash

versions prior to bash-4.1.2-15.el6_5.2 are vulnerable to the ShellShock Software bug. Care should be taken to ensure that the version of bash on the system is bash-4.1.2-15.el6_5.2 or higher.

RAC Database with Flash archive turned on: The restore script fails to restore a RAC database when the flash archive option is turned on during the creation of the database. In this case, Oracle RMAN should be used directly to restore and recover the RAC database.

Documentation

Related documentation includes the *Hitachi Storage Adapter for Oracle Recovery Manager User's Guide* [MK-90ADPTR005-11] and the documents listed in its Referenced Documents section.

Product Licensing

Downloading and use of this adapter requires a license. Contact Hitachi Data Systems sales for a license.

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