

Hitachi Storage Adapter for Oracle Enterprise Manager — Database Cloning enables hot or cold database cloning within any Oracle infrastructure deployed on Hitachi storage solutions. With a streamlined process that relies on Hitachi replication technology, the adapter allows your Oracle databases to be cloned for quality assurance (QA), development and data protection.

Hitachi Storage Adapter for Oracle Enterprise Manager — Database Cloning

Quickly Clone Oracle Databases, Test and Improve Performance Without Disrupting Production Operations

One of the highest priorities IT organizations have is to maintain continuous operations of production systems and the applications those systems support. Any changes, updates, patches or new applications that involve production Oracle databases and applications must be thoroughly tested before active deployment.

Creating clones of active production databases enables administrators to test and perform QA procedures using an exact replica of a production Oracle database — without any risk to the production database or applications.

Hitachi Storage Adapter for Oracle Enterprise Manager — Database Cloning enables hot cloning of active production Oracle databases as well as cold cloning of inactive Oracle databases.

This adapter has been engineered to simplify the creation of database clones, even for those without an expert knowledge of Oracle databases.

Keep Oracle Databases Running Smoothly to Support Business Needs

Hitachi Storage Adapter for Oracle Enterprise Manager — Database Cloning clones the LUNs or disks that Oracle Automatic Storage Management (ASM) is handling to produce a clone of the Oracle database at a given point in time (see Figure 1).

To clone a database, the administrator first launches the Hitachi ShadowImage

heterogeneous replication operation to create a storage-based volume copy of the database. ShadowImage functions are nondisruptive to the I/O operations on the primary server. Because Oracle databases are typically created across multiple volumes, once the primary volumes are replicated, an Oracle clone can be initiated by mounting the replicated secondary volumes on the clone server.

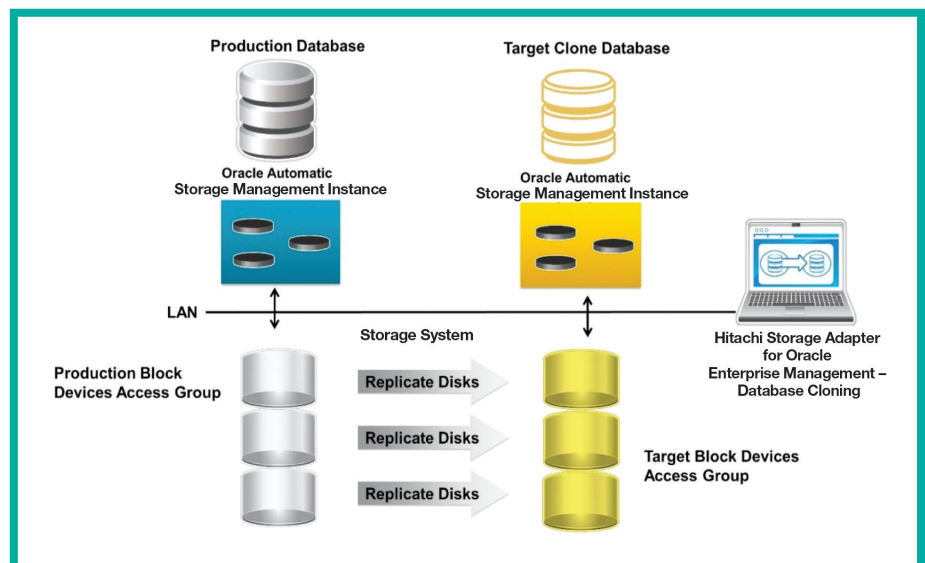


Figure 1. Hitachi Storage Adapter for Oracle Enterprise Manager — Database Cloning simplifies the creation of database clones.

Hitachi Storage Adapter for Oracle Enterprise Manager — Database Cloning supports business needs, including:

- Makes multiple clones for various uses, such as fulfilling requests from development and QA groups.
- Hot cloning of an Oracle database for backup, disaster recovery or other operations without interruption to the production database or applications.
- Cold cloning of Oracle databases, which can be made by those unfamiliar with database administration, when those databases are not in use.

Technical Considerations

Table 1 presents the Hitachi storage and converged infrastructure systems, and other required and multipath software that is available for or compatible with Hitachi Storage Adapter for Oracle Enterprise Manager — Database Cloning.

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 in your environment. For more information, see the Hitachi Data Systems Global Services website.

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, visit www.hds.com/oracle. Or, contact your local sales representative or solutions consultant.

TABLE 1. SUPPORT FOR HITACHI STORAGE ADAPTER FOR ORACLE ENTERPRISE MANAGER — DATABASE CLONING

Hitachi Storage Systems	<ul style="list-style-type: none"> ■ Virtual Storage Platform (VSP) G series, including VSP G200, VSP G400, VSP G600, VSP G800 and VSP G1000 ■ VSP F series (all flash), including VSP F400, VSP F600 and VSP F800 ■ Unified Storage VM (HUS VM) ■ Unified Storage (HUS) family, including HUS, HUS 100, HUS 110, HUS 130 and HUS 150
Required Software	<ul style="list-style-type: none"> ■ Hitachi Storage for Oracle Database Cloning rpm file ■ Python version 2.6 ■ Oracle Database 11gR2 Standalone and RAC configuration ■ Oracle Database 12c Standalone and RAC configuration ■ Oracle Grid Infrastructure 11g with ASM ■ Oracle Grid Infrastructure with ASM ■ Command Control Interface (CCI) (See the <i>Hitachi Command Control Interface Installation and Configuration Guide</i> for instructions.)
Oracle Database Software	<ul style="list-style-type: none"> ■ Oracle 11g Release 2 (11.2.0.3) ■ Oracle 11g Release 2 (11.2.0.4) ■ Oracle 12c (non CDB/non PDB)
Hitachi Replication Software	<p>Hitachi ShadowImage software is supported on:</p> <ul style="list-style-type: none"> ■ VSP G series, including VSP G200, VSP G400, VSP G600, VSP G800 and VSP G1000 ■ VSP F series (all flash), including VSP F400, VSP F600 and VSP F800 ■ HUS family and HUS VM <p>Hitachi Copy-on-Write Snapshot or Hitachi Thin Image software is supported on:</p> <ul style="list-style-type: none"> ■ VSP G series, including VSP G200, VSP G400, VSP G600, VSP G800 and VSP G1000 ■ VSP F series (all flash), including VSP F400, VSP F600 and VSP F800 ■ HUS family and HUS VM
Operating System	<ul style="list-style-type: none"> ■ Red Hat Enterprise Linux (6.5), (6.6), 64-bit ■ Oracle Enterprise Linux 6.5, 6.6, 64-bit

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