

Oracle® Database

Release Notes

10g Release 2 (10.2) for IBM z/OS (OS/390)

B25389-03

April 2010

This document contains important information that was not included in the platform-specific or product-specific documentation for this release. Unless stated otherwise, the information in this document applies equally to z/OS, and z/OS.e.

It contains the following topics:

- [Documentation Updates](#)
- [Unsupported Features and Functions](#)
- [Known Restrictions](#)
- [Documentation Accessibility](#)

This document may be updated after release. To check for updates to this document and to view other product-specific release notes, see the Documentation section on the OTN Web site:

<http://oracle.com/technology/documentation>

For additional information about this release, go to the Install CD-ROM, open the file `welcome.html`, and click the ReadMe tab. This provides access to the `readme` files.

1 Documentation Updates

The following sections contain updates to the Oracle Database 10g documentation:

- [Support for Hearing and Speech Impaired Customers](#)
- [Disk Space Requirements](#)
- [Content Missing from the User's Guide](#)
- [Parameter Settings for the LISTENER.ORA File](#)
- [Additional Database Region Parameter](#)
- [Additional Database Region Message](#)

1.1 Support for Hearing and Speech Impaired Customers

The Text Telephone (TTY) phone number for non-technical support is listed incorrectly in several documents. The correct phone number is 1.800.464.2330.

1.2 Disk Space Requirements

Refer to *Oracle Database Installation Guide for IBM z/OS (OS/390)* to determine the total Oracle non-database disk space requirements, including those for code, JCL, and samples.

1.3 Content Missing from the User's Guide

In Chapter 6, the following paragraph is missing from the "Synchronization of Oracle and IMS TM Updates" subsection of the "IMS TM Application Design Considerations" section under "Developing Oracle Applications for the IMS TM Environment".

An AM4IMS application program running in a BMP must issue an `IMS CHKP` or `ROLB` prior to termination. For example, a Cobol program would access Oracle, then invoke `CHKP` or `ROLB` before the exiting the `GOBACK` statement.

1.4 Parameter Settings for the LISTENER.ORA File

In the sections 8.7.4, "Step 4: Edit the Listener.ora File" and 8.8.2, "Step 2: Create or Modify the Listener.ora File" of Chapter 8, "Oracle Net" in *Oracle Database System Administration Guide for IBM z/OS (OS/390)*, the following parameters should be added to the existing list of parameters in the `LISTENER.ORA` file.

```
RS_NOTIFICATION=FALSE
SUBSCRIBE_FOR_NODE_DOWN_EVENT=FALSE
```

1.5 Additional Database Region Parameter

The following is a Database regional parameter in addition to the ones mentioned in the section 3.4, "Database Regional Parameters" of Chapter 2, "Configuring a Database Service and Creating a New Database" in *Oracle Database System Administration Guide for IBM z/OS (OS/390)*:

```
ALERT_ROUTCDE | ALRTRCDE
```

`ALERT_ROUTCDE` specifies that alert log messages should also be written to the operator console and provides a list of routing codes. The following is the format of this parameter:

```
ALERT_ROUTCDE ( route [, route, ... ] )
```

The *route* value specifies a numeric routing code in the range 1 - 29 and 65 - 128. Multiple values may be specified, separated by commas. Refer to the `WTO` macro in the *MVS Assembler Services Reference* for a description of each routing code.

If you omit this parameter, database messages are written only to the alert log.

1.6 Additional Database Region Message

The following is a Database regional message in addition to the ones mentioned in the section 9.1, "Messages MIR0001I to MIR0622I" of Chapter 9, "Database Region Messages" in *Oracle Database Messages Guide for IBM z/OS (OS/390)*:

MIR0623I alert log text

Cause: Information from the alert log. These messages are only issued when the ALERT_ROUTCDE parameter is specified.

Action: No action is required

2 Unsupported Features and Functions

This release of Oracle10g for IBM z/OS (OS/390) does not include support for the following features and functions. Existing customers should also consult *Oracle10g Enterprise Edition System Administration Guide for z/OS* for unsupported features or functions that should be taken into consideration during a migration or upgrade.

- Automated Storage Manager
- Cross Platform Transportable Tablespaces
- Generic Connectivity using ODBC
- HTML_DB
- Oracle Data Mining
- Oracle Dynamic Services Server
- Oracle HTTP Server
- Oracle Internet Directory
- Oracle Messaging Gateway
- Oracle Real Application Cluster Guard
- Oracle Java Server Pages
- Oracle Personalization
- Oracle Ultra Search
- Oracle Workflow
- Oracle Workspace Manager

3 Known Restrictions

The following is a list of known restrictions to this release of Oracle Database on IBM z/OS:

- [Advanced Queuing](#)
- [ALTER DATABASE...RESIZE](#)
- [Automatic Recall of Database Data Sets](#)
- [Client Runtime with C Programs](#)
- [IEEE Standard Floating Point Number Restrictions](#)
- [Java Virtual Machine \(JavaVM\)](#)
- [Native Compilation of Java and PL/SQL](#)
- [Oracle Datapump](#)
- [Oracle Enterprise Manager Intelligent Agent](#)

- Oracle External Tables
- Oracle JDBC OCI Drivers
- Oracle OLAP
- Oracle Real Application Clusters
- Oracle Security Server
- Oracle Spatial Data Option
- Oracle Streams
- Oracle Universal Installer
- Oracle Utilities
- Oracle XML Developers Kit
- Propagation from Object Queues
- SQL*Plus linesize Variable Issues
- Upgrade Issues
- XML Database (XML DB)

3.1 Advanced Queuing

Non-repudiation of Advance Queuing messages sent across a firewall using Internet Document Access Protocol (IDAP) is not supported in this release.

3.2 ALTER DATABASE...RESIZE

Oracle database files on IBM z/OS are implemented as VSAM linear data sets. IBM does not provide a space release function for VSAM data sets, so using ALTER DATABASE...RESIZE to make a database file smaller has no effect. Database files can be resized larger, both manually (with ALTER) and automatically as they fill (when a tablespace is defined with AUTOEXTEND).

3.3 Automatic Recall of Database Data Sets

No support is available currently for automatically recalling IBM z/OS data sets that are used by the Oracle server if they have been migrated to other media by IBM's DFSMSHsm, or a similar product. This applies to the VSAM linear data sets (LDS) comprising the database, and to non-VSAM data sets such as parameter files. All such data sets must be on disk in their original form when they are opened by the server.

3.4 Client Runtime with C Programs

To use 10g Release 2 (10.2) Client with a C program, you must complete the following steps:

1. Ensure that the C for z/OS V1R2 compiler is installed, instead of or addition to the C for OS390 V2R10.
2. Recompile all OCI programs using the C for z/OS V1R2 compiler with the ENUM(INT) option.

Note: Refer to *z/OS V1R2.0 C/C++ Compiler and Run-Time Migration Guide* for additional information about this issue.

3.5 IEEE Standard Floating Point Number Restrictions

The following is a list of restrictions that apply to the IEEE standard floating point numbers:

- The new BINARY_DOUBLE and BINARY_FLOAT database data types are not supported for client applications running on z/OS.

This restriction applies to both customer-written applications and Oracle tools and utilities on z/OS. Attempts to store or fetch these types from a client program running on z/OS produces unpredictable results with both local and remote Oracle10g servers.

- Use of z/Architecture Binary Floating Point (BFP, also known as IEEE 754 floating point) in Oracle applications running on z/OS is not supported.

This restriction means that customer-written Oracle applications cannot bind or define host variables that are BFP types in an Oracle SQL statement. This restriction also affects tools and utilities: both SQL*Loader and the server External Table feature cannot load file data that is BFP.

Traditional System/370 floating point data (now known as Hexadecimal Floating Point or HFP) remain supported, as in the past.

3.6 Java Virtual Machine (JavaVM)

The following java methods are not supported with the JavaVM:

- java.lang.Runtime.exec()
- java.lang.System.load()
- java.lang.System.loadLibrary()
- java.lang.System.mapLibraryName()
- java.nio.channels.

3.7 Native Compilation of Java and PL/SQL

Native compilation of Java or PL/SQL programs is not supported.

3.8 Oracle Datapump

Oracle Datapump is restricted to HFS and zFS file systems.

3.9 Oracle Enterprise Manager Intelligent Agent

The following sections contain issues that affect Oracle Enterprise Manager Intelligent Agent:

3.9.1 Available Functions with Oracle Enterprise Manager Intelligent Agent

Oracle10g Database for IBM z/OS supports only a minimal set of system statistics and these may not reflect the actual performance of the system.

3.9.2 Configuration of Oracle Enterprise Manager Intelligent Agent

Configuration of the Agent must be done manually. The Oracle Enterprise Manager Configuration Assistant is not supported with this release.

3.9.3 Database Startup and Shutdown with Oracle Enterprise Manager

Oracle10g Database for IBM z/OS (OS/390) supports database startup and shutdown from the console. Before you can use this feature, the OSDI rdbms and net subsystem must be active.

3.9.4 Oracle Enterprise Manager Grid Control Console and iSQL*Plus

Oracle10g Database for IBM z/OS (OS/390) does not support the iSQL*Plus interface from the console.

3.9.5 Oracle Enterprise Manager Grid Control Console Not Shipped

Currently, Oracle10g Database for IBM z/OS (OS/390) only ships with the Oracle Enterprise Manager Agent. Oracle Enterprise Manager Grid Control Console is not supported, though this release does support a remote Oracle Enterprise Manager Grid Control Console. This is because the repository for this console must not reside on a z/OS platform.

3.10 Oracle External Tables

External Tables is an Oracle feature that enables you to process non-Oracle operating system files as Oracle database tables. On IBM z/OS, the External Tables feature is limited to accessing files in the HFS and zFS file systems.

3.11 Oracle JDBC OCI Drivers

Oracle JDBC OCI drivers are supported for a limited subset of features. When you use a feature that is not supported, an error is returned with a message displayed to state that the feature is not supported. The Database character set must be WE8EBCDIC1047 or similar.

3.12 Oracle OLAP

The following sections contain issues affecting Oracle OLAP:

3.12.1 Oracle OLAP API

The Oracle OLAP API interface is not supported.

3.12.2 Oracle OLAP Installation

Dynamically linking options into the Oracle kernel as part of the Oracle Universal Installer installation is not supported in this release. If you choose the OLAP optional feature, then after the Oracle Universal Installer installation is complete, you must complete the following task manually to link the required code into Oracle:

1. Set your \$ORACLE_HOME and \$ORACLE_HLQ_PDS.

Do this by running the ENV file in your ORACLE_HOME location. For example:

```
cd $ORACLE_HOME/server/rdbms
make -f ins_rdbms.mk olap_on
```

```
make -f ins_rdbms.mk ioracle
```

A backup copy of the oracle executable is kept automatically in `$ORACLE_HOME/server/rdbms/bin`. It is named `oracleO`.

2. (Optional) Allocate a temporary AUTHLOAD to hold the new Oracle executable.

The final stage of the relink make attempts to copy the new Oracle executable into your AUTHLOAD, provided the link is successful. To allocate a temporary AUTHLOAD:

- a. Allocate your new AUTHLOAD, using the same attributes as the current AUTHLOAD
 - b. Set the `ORACLE_HLQ_PDS` environment variable to point to this new HLQ.
3. Refer to the Oracle OLAP documentation to run the OLAP installation scripts.

At a minimum, you must run the script `$ORACLE_HOME/olap/admin/olap.sql`.

3.13 Oracle Scheduler

External jobs are not supported from Oracle Scheduler on IBM z/OS.

3.14 Oracle Real Application Clusters

If you use ARCHIVE mode with Oracle Real Application Clusters (Oracle RAC), then you must either set the `LOG_ARCHIVE_FORMAT/DEST` values, or ensure that each instance within the Oracle Real Application Clusters cluster is in a separate subsystem and uses the same OSDI service name for each instance. Failure to do so causes database recovery to fail, due to an inability to find archive log files.

3.15 Oracle Security Server

For Oracle Security Server, an Oracle10g server or client on IBM z/OS cannot be a participant in an Oracle security connection. However, an Oracle database server on IBM z/OS can be the security repository.

3.16 Oracle Spatial Data Option

The `SDO_GEORASTER` feature is not supported.

3.17 Oracle Streams

The `DBMS_FILE_TRANSFER` PL/SQL package is not supported.

3.18 Oracle Universal Installer

The following configuration assistants for Oracle Universal Installer are not supported:

- Database Configuration Assistant (dbca)

- Enterprise Manager Configuration Assistant (emca)

3.19 Oracle Utilities

The utilities Oracle Trace and dbnewid are not available.

Additional utilities are also not available with this release. For a complete list of unavailable utilities, refer to the documents *Oracle Database Installation Guide for IBM z/OS (OS/390)*, and *Oracle Database System Administration Guide for IBM z/OS (OS/390)*.

3.20 Oracle XML Developers Kit

The following parts of the XML Developers Kit are not supported:

- XML Class Generator for Java and C++

3.21 Propagation from Object Queues

Propagation from object queues with BFILEs is not supported in Oracle Database 10g.

3.22 SQL*Plus linesize Variable Issues

When running SQL*Plus, if the `linesize` variable exceeds the SPOOL data set record length, the record truncates, and you may receive the following error:

```
SP2-0308: cannot close spool file.
```

To work around this problem, ensure that the SQL*Plus `linesize` variable is less than or equal to the SPOOL data set record length.

This issue is tracked with Oracle bug 4564229.

3.23 Upgrade Issues

If you upgrade an Oracle9i database to Oracle Database 10g release 1, Oracle Flashback features using a timestamp may fail. To work around this problem, enter the following SQL script from the Oracle Database 10g database:

```
SQL> DELETE FROM smon_scn_time WHERE orig_thread <> 0;  
SQL> COMMIT;
```

This issue is tracked with Oracle bug 3994270.

3.24 XML Database (XML DB)

The following XML DB components are not supported in this release:

- WebDAV access
- HTTP access
- FTP access

4 Documentation Accessibility

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