



**Oracle 11.2.0.4
October 2015 PSU
Instructions for Voyager**

Ex Libris Confidential

CONFIDENTIAL INFORMATION

The information herein is the property of Ex Libris Ltd. or its affiliates and any misuse or abuse will result in economic loss. DO NOT COPY UNLESS YOU HAVE BEEN GIVEN SPECIFIC WRITTEN AUTHORIZATION FROM EX LIBRIS LTD.

This document is provided for limited and restricted purposes in accordance with a binding contract with Ex Libris Ltd. or an affiliate. The information herein includes trade secrets and is confidential.

DISCLAIMER

The information in this document will be subject to periodic change and updating. Please confirm that you have the most current documentation. There are no warranties of any kind, express or implied, provided in this documentation, other than those expressly agreed upon in the applicable Ex Libris contract. This information is provided AS IS. Unless otherwise agreed, Ex Libris shall not be liable for any damages for use of this document, including, without limitation, consequential, punitive, indirect or direct damages.

Any references in this document to third-party material (including third-party Web sites) are provided for convenience only and do not in any manner serve as an endorsement of that third-party material or those Web sites. The third-party materials are not part of the materials for this Ex Libris product and Ex Libris has no liability for such materials.

TRADEMARKS

"Ex Libris," the Ex Libris bridge, Primo, Aleph, Alephino, Voyager, SFX, MetaLib, Verde, DigiTool, Preservation, URM, ENCompass, Endeavor eZConnect, WebVoyage, Citation Server, LinkFinder and LinkFinder Plus, and other marks are trademarks or registered trademarks of Ex Libris Ltd. or its affiliates.

The absence of a name or logo in this list does not constitute a waiver of any and all intellectual property rights that Ex Libris Ltd. or its affiliates have established in any of its products, features, or service names or logos.

Trademarks of various third-party products, which may include the following, are referenced in this documentation. Ex Libris does not claim any rights in these trademarks. Use of these marks does not imply endorsement by Ex Libris of these third-party products, or endorsement by these third parties of Ex Libris products.

Oracle is a registered trademark of Oracle Corporation.

UNIX is a registered trademark in the United States and other countries, licensed exclusively through X/Open Company Ltd.

Microsoft, the Microsoft logo, MS, MS-DOS, Microsoft PowerPoint, Visual Basic, Visual C++, Win32,

Microsoft Windows, the Windows logo, Microsoft Notepad, Microsoft Windows Explorer, Microsoft Internet Explorer, and Windows NT are registered trademarks and ActiveX is a trademark of the Microsoft Corporation in the United States and/or other countries.

Unicode and the Unicode logo are registered trademarks of Unicode, Inc.

Google is a registered trademark of Google, Inc.

Copyright Ex Libris Limited, 2016. All rights reserved.

Document released: January 2016

Web address: <http://www.exlibrisgroup.com>

Oracle 11.2.0.4 October 2015 PSU Instructions for Voyager

Overview of Oracle Patch Set Update & Bug Fix Patch

The Oracle 11.2.0.4.8 patch set update (PSU) is last updated on Oct 20, 2015.

- This PSU is applicable for the Oracle 11.2.0.4 database server
- Oracle clients are not applicable
- The existing Oracle database must have been upgraded to the version 11.2.0.4.x (using Voyager standard procedure, via VIK or manually)
- 500MB disk space
- This PSU is available to Voyager customers for Solaris SPARC 64-bit and Linux x86_64

OS System Requirements

It is recommended that you run Voyager VIK systemcheck to verify. For questions, please contact ExLibris Voyager Support Team.

Oracle 11.2.0.4 Patch Set Information

- Version: 11.2.0.4.8
- Patch 21352635: DATABASE PATCH SET UPDATE 11.2.0.4.8
- Documents:
- https://support.oracle.com/epmos/faces/DocumentDisplay?_afLoop=384483652939297&id=2037108.1&_afWindowMode=0&_adf.ctrl-state=xbpkk3r13_4#BABCEDDD
- <https://updates.oracle.com/Orion/Services/download?type=readme&aru=19227862>

Note about Patch 6880880 for OPatch: OPatch for all platforms were last updated on SEP-2015 and the OPatch Installer version is 11.2.0.3.12.

Downloads

1. Download the Oracle 11.2.0.4.8 patch set file p21352635_112040_<platform>.zip.
2. Download the OPatch Utility package p6880880_112000_<platform>.zip
3. Download the files from ExLibris FTP server to /m1/incoming/oracle
 - a. Cd /m1/incoming/oracle
 - b. ftp <ftp.exlibris-usa.com>
 - c. login as oracle
 - d. cd PSU/<OS>/11.2.0.4.8
 - e. bin
 - f. hash
 - g. prompt
 - h. mget *.zip
 - i. quit

Stop Oracle Services and Applications Connecting to Oracle Database

All Applications that connect to Oracle database should be stopped during the Oracle patch process.

```
su - root
/etc/init.d/voyager stop
/etc/init.d/cognos stop // if installed
```

Stop Oracle database and listener services on UNIX

```
su - root
/etc/init.d/dbora stop
```

Ensure ALL oracle services are stopped and no longer running. If any services are running, please make sure to stop them completely!!!

```
ps -ef | grep -i ora
```

Note for Solaris 10: Oracle services were likely implemented as SMF services on Solaris 10. Please double check that SMF oracle services are tentatively disabled if you're running this patch manually.

```
svcs -a | grep Ora
disabled    10:19:28 svc:/site/ExLibris/Oracle/VGER:default
disabled    10:19:30 svc:/site/ExLibris/Oracle/olisten:default
```

Prepare for the Patch Environment

Perform all the following work as the oracle user. Ensure that ORACLE_HOME is set to /oracle/app/oracle/product/11.2.0.4/db_1 and ORACLE_SID is VGER or MRDN, or the instance for which you'd like to patch.

```
su - oracle
echo $ORACLE_HOME
echo $ORACLE_SID
```

Do "which opatch" and ensure OPatch/bin is included in the PATH variable. If not, please add it to PATH

```
which opatch
PATH=$PATH:$ORACLE_HOME/OPatch/bin; export PATH
```

Ensure that Perl is /m1/shared/bin/perl. If not installed, please download the SHARED package (8.2.0) from ExLibris and install Perl first

```
which perl
```

Check system compiler/linking tools as needed by the Oracle Patch, mostly they are located in /usr/ccs/bin (Solaris) or /usr/bin (Linux).

```
export PATH=$PATH:/usr/ccs/bin
which make
which ar
which ld
which nm
```

Update the Oracle OPatch Utility

Backup the existing \$ORACLE_HOME/OPatch directory
cd \$ORACLE_HOME
mv OPatch OPatch.OLD

Install the new OPatch utility onto \$ORACLE_HOME
cd \$ORACLE_HOME
unzip /m1/incoming/oracle/p6880880_112000_*.zip

Install the 11.2.0.4.8 Patchset and Check for Patch Conflicts

Unzip the p21352635_112040_<platform>.zip onto \$ORACLE_HOME/OPatch
cd \$ORACLE_HOME/OPatch
unzip /m1/incoming/oracle/p21352635_112040_<platform>.zip

List the products installed in the oracle inventory by running the following command:
opatch lsinventory

Determine whether any currently installed one-off patches conflict with the PSU patch as follows
cd \$ORACLE_HOME/OPatch/21352635
opatch prereq CheckConflictAgainstOHWithDetail -ph ./

The output will look similar to the following:

```
Oracle Interim Patch Installer version 11.2.0.3.12
Copyright (c) 2015, Oracle Corporation. All rights reserved.

PREREQ session

Oracle Home      : /oracle/app/oracle/product/11.2.0.4/db_1
Central Inventory: /oracle/app/oracle/orainventory
  from           : /oracle/app/oracle/product/11.2.0.4/db_1/orainst.loc
OPatch version   : 11.2.0.3.12
OUI version      : 11.2.0.4.0
Log file location: /oracle/app/oracle/product/11.2.0.4/db_1/cfgtoollogs/opatch/opatch2015-10-21_12-29-44PM_1.log

Invoking prereq "checkconflictagainstohwithdetail"
Prereq "checkConflictAgainstOHWithDetail" passed.
OPatch succeeded.
```

Please review the log file at the Log file location. If the report indicates PSU 21352635 is a superset and there are no obvious conflicts, then proceed with the patch installation process below.

Apply the Patchset

Check again to ensure all Oracle database and Listener services are shutdown:
ps -ef | grep -i ora

```
Change to $ORACLE_HOME/OPatch/21352635 and apply the patch
cd $ORACLE_HOME/OPatch/21352635
opatch apply
```

When prompted for questions, please enter "Y". No need to enter your email address when asked.
Below is a sample output of running this PSU on a Linux server.

```
Oracle Interim Patch Installer version 11.2.0.3.12
Copyright (c) 2015, Oracle Corporation. All rights reserved.

Oracle Home      : /oracle/app/oracle/product/11.2.0.4/db_1
Central Inventory : /oracle/app/oracle/oraInventory
   from           : /oracle/app/oracle/product/11.2.0.4/db_1/orainst.loc
OPatch version   : 11.2.0.3.12
OUI version      : 11.2.0.4.0
Log file location : /oracle/app/oracle/product/11.2.0.4/db_1/cfgtoollogs/opatch/opatch2015-10-21_12-31-29PM_1.log

Verifying environment and performing prerequisite checks...
OPatch continues with these patches: 20760982 21352635

Do you want to proceed? [y|n]
y
User Responded with: Y
All checks passed.
Provide your email address to be informed of security issues, install and
initiate Oracle Configuration Manager. Easier for you if you use your My
Oracle Support Email address/User Name.
Visit http://www.oracle.com/support/policies.html for details.
Email address/User Name:

You have not provided an email address for notification of security issues.
Do you wish to remain uninformed of security issues ([Y]es, [N]o) [N]: Y

Please shutdown Oracle instances running out of this ORACLE_HOME on the local system.
(Oracle Home = '/oracle/app/oracle/product/11.2.0.4/db_1')

Is the local system ready for patching? [y|n]
y
User Responded with: Y
Backing up files...
Applying sub-patch '20760982' to OH '/oracle/app/oracle/product/11.2.0.4/db_1'

Patching component oracle.sysman.console.db, 11.2.0.4.0...

..
Patching component oracle.rdbms, 11.2.0.4.0...
Composite patch 21352635 successfully applied.
Log file location: /oracle/app/oracle/product/11.2.0.4/db_1/cfgtoollogs/opatch/opatch2015-10-21_12-31-29PM_1.log

OPatch succeeded.
```

NOTE about Patch Warning Messages

No warnings appear from running this patch. However, on Solaris, if the warning message “ld: warning: option -Q appears more than once, first setting taken” is ignorable.

On Linux, the warning message “ins_emagent.mk:113: warning: overriding commands for target `nmosudo' ins_emagent.mk:52: warning: ignoring old commands for target `nmosudo' – these warnings are harmless and can be also ignored!

Patch Post-Installation Instructions

Applying Conflict Resolution Patches

Apply the patch conflict resolution one-off patches that were determined to be needed. For Voyager customers upgrading from 11.2.0.4.0 directly to 11.2.0.4.8, we don't expect any patch conflicts.

Load modified SQL files into the database

```
cd $ORACLE_HOME/rdbms/admin
sqlplus /nolog
SQL> connect / as sysdba
SQL> startup
SQL> @catbundle.sql psu apply
SQL> quit
```

Check the following log files in /oracle/app/oracle/cfgtoollogs/catbundle for any errors

```
catbundle_PSU_<SID>*<TIMESTAMP>.log
```

Recompile invalid objects

To ensure all dependent objects are valid after running catbundle.sql, load utlrp.sql and check for any invalid objects. If invalid objects found, please recompile and fix as appropriate.

```
cd $ORACLE_HOME/rdbms/admin
sqlplus / as sysdba
SQL> SELECT owner, object_name, object_type from dba_objects where status <> 'VALID';
```

If there are any invalid objects, please continue to run the utlrp.sql to recompile.

```
SQL>@utlrp.sql
SQL> SELECT owner, object_name, object_type from dba_objects where status <> 'VALID';
SQL> quit
```

If you are using the Oracle Recovery Manager (RMAN), the catalog needs to be upgraded.

```
lsnrctl start // start Listener first if not
rman catalog username/password@alias
RMAN> UPGRADE CATALOG;
```

Shut down the instance again to complete the patch update.

```
sqlplus / as sysdba
shutdown immediate;
quit;
ps -ef | grep oracle // double check
```

NOTE for multiple instances associated with same ORACLE_HOME - please repeat the steps in the “Post-Installation Instructions” and update other instance as well. For example, if MRDN instance is installed on same ORACLE_HOME, then “export ORACLE_SID=MRDN” and repeat the steps above.

Start Up Oracle Services & Applications

On UNIX:

```
su - root
/etc/init.d/dbora start
/etc/init.d/httpd2 restart           // if Apache server runs on this server
/etc/init.d/voyager start           // if Voyager applications run on this server
/etc/init.d/cognos start            // if Analyzer runs on this server
```

Note that on Solaris 10, the SMF oracle services will be re-enabled and brought back online. You can verify by typing:

```
# svcs -a | grep -i ora
online    12:29:10 svc:/site/ExLibris/Oracle/olisten:default
online    12:29:24 svc:/site/ExLibris/Oracle/VGER:default
```

Testing Voyager database connections

Test as oracle user and then by voyager user

Test on the database server and also application server if separated from the DB server.

Ensure the oracle databases are connectible by the voyager user.

Ensure Voyager or Analyzer applications run well

How to check database patch level

```
sqlplus / as sysdba
select * from DBA_REGISTRY_HISTORY – database
select * from registry$history;
```

Or, on the system, as oracle, type this command to check for patch software level.

```
opatch lsinventory          - list software
```