



# Ex Libris Patch Instructions for Oracle 10 CPUs for Voyager UNIX Servers

10.2.0.4

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# 1

## OraCPUs System Information (UNIX)

The following table describes the system information for the Oracle 10 Critical Patch Updates (CPU) for Voyager products on UNIX servers (October 2010).

OraCPUs System Information (Linux)		
Requirements	Space	50 MB (approximate) of space on your server
	Version	Oracle 10.2.0.4 The patch requires your server to be at Oracle 10.2.0.4.
Downtime	Time	90 - 120 minutes to complete (approximate but not to exceed)
	Client Availability	Down All operations are down during the patch process.
	Web Availability	Down Web searching is unavailable during the patch process.
	Oracle Availability	Down Oracle is up and down during phases of the patch process (per instructions). However for all functional purposes, Oracle is considered down.
	Reboot Required	No (optional)

# 2

## Ex Libris Patch Download Instructions (UNIX)

The following table describes the patch download instructions for the Oracle 10 Critical Patch Updates (CPU) for Voyager products on UNIX servers (October 2010).

Ex Libris Patch Download Instructions (UNIX)	
Step-by-Step Example Instructions	Example Commands
1) Log in to the server as the Oracle user. Note: For sites with a split server configuration, log in to the database server(s) and download the patch on each database server (if there is more than one).	
2) Change the directories to the incoming directory.	<code>cd /ml/incoming</code>
3) Remove the old Oracle patch files.	<code>rm p*_&lt;OS&gt;*.zip</code>
4) Run the FTP program and open the session to Ex Libris. Note 1: For sites with a split server configuration, log in to the database server(s) and download the patch on each database server (if there is more than one). Note 2: The Oracle client installation is not affected and does not need to apply this CPU.	<code>ftp downloads.exlibrisgroup.com</code>
5) Login Name: OraCPU Password: Refer to Ex Libris KB item 16384-11361	Login Name: OraCPU Password:

<pre> Connected to eagle.endinfosys.com. 220 Serv-U FTP Server v9.3 ready... Name (downloads.exlibrisgroup.com:voyager): OraCPU 331 User name okay, need password. Password: 230 User logged in, proceed. Remote system type is UNIX. Using binary mode to transfer files ftp&gt; </pre>	
<p>6) Turn on the passive mode. Set the FTP to the binary mode. Turn on hash marks. Toggle off prompts.</p>	<pre> passive bin hash prompt </pre>
<pre> ftp&gt; passive Passive mode on. ftp&gt; bin 200 Type set to I. ftp&gt; hash Hash mark printing on (8192 bytes/hash mark). ftp&gt; prompt Interactive mode off. ftp&gt; </pre>	
<p>7) Change to the proper patch directory 10.2.0.4/Oct_2010/&lt;your server architecture&gt;.</p>	<pre> Solaris: cd 10.2.0.4/Oct_2010/Solaris </pre>
<pre> ftp&gt; cd 10.2.0.4/Oct_2010/Solaris 250 CWD command successful. ftp&gt; </pre>	<pre> AIX: cd 10.2.0.4/Oct_2010/AIX  Linux x86_64: cd 10.2.0.4/Oct_2010/Linux  Linux x86: cd 10.2.0.4/Oct_2010/Linux_x86 </pre>
<p>8) Begin the transfer of the CPU files. The hash marks indicate that the transfer is in progress.</p> <p>For all UNIX systems, download:</p> <pre> p6880880_102000_&lt;OS&gt;.zip p9952272_10204_&lt;OS&gt;.zip </pre> <p>For Linux x86_64 servers, also download:</p> <pre> OLAP_o10204_Linux.tar.bz2 </pre>	
<pre> ftp&gt; mget *.zip 200 PORT command successful. 150 Opening BINARY mode data connection for p6880880_102000_*.zip (XXX bytes). ##### </pre>	<pre> mget *.zip  Linux x86_64: mget *.bz2 </pre>

9) After the transfer is complete, type `bye` to end the FTP session.

`bye`

# 3

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## Ex Libris CPU Patch Application Instructions (UNIX)

The following table describes the patch application instructions for the Oracle 10 Critical Patch Updates (CPU) for Voyager products on UNIX servers (October 2010).

Ex Libris Patch Application Instructions (UNIX)	
Step-by-Step Example Instructions:	Example Commands:
1) Log in to the server as root.  Note: For sites with a split server configuration, log in to the database server(s) and apply the patch to each database server (if there is more than one).	<code>su - root</code>
2) For Solaris 10: Check for the presence of required Solaris patch 123908-01 or later. Using the command in the left column to verify the presence of this patch. You are required to install this patch on Solaris 10 if it is not present. You may download this patch from the following location and install it as root: <a href="http://sunsolve.sun.com/search/document.do?assetkey=1-21-138634-01-1">http://sunsolve.sun.com/search/document.do?assetkey=1-21-138634-01-1</a>	Solaris 10: <code>patchadd -p  grep 123908</code>



<p>3) Shut down all Ex Libris-related product processes that connect to the Oracle database. For sites with a split server configuration (like Database server, Application server, Web server), stop the services on each server where/if the programs are installed and running.</p> <p>Note for Solaris 10: If <code>/etc/init.d/dbora stop</code> doesn't stop the SMF-managed Oracle properly, call Ex Libris Customer Support.</p> <p>Note for AIX: If the system startup scripts were installed in <code>/etc/init.d</code> but you do not see <code>/etc/rc.voyager</code> or <code>/etc/rc.dbora</code> or <code>/etc/rc.httpd2</code> on the server, then, as root, create an appropriate symlink for them such as:</p> <pre>ln -s /etc/init.d/voyager /etc/rc.voyager ln -s /etc/init.d/dbora /etc/rc.dbora ln -s /etc/init.d/httpd2 /etc/rc.httpd2</pre>	<pre>/etc/init.d/httpd2 stop /etc/init.d/voyager stop</pre> <p>If Cognos/Analyzer is installed:</p> <pre>/etc/init.d/cognos /etc/init.d/dbora stop</pre>
<p>4) Switch to the Oracle user. Check the <code>ORACLE_HOME</code> and <code>ORACLE_SID</code> environment variables. <code>ORACLE_HOME</code> is <code>/oracle/app/oracle/product/10.2.0/db_1</code> and <code>ORACLE_SID</code> is <code>VGER</code> (for Voyager) or <code>MRDN</code> (for Analyzer). Use the <code>which</code> command to verify that specific programs are available on the server and commands such as <code>make</code>, <code>ar</code>, <code>ld</code>, and <code>nm</code> are available in Oracle's <code>\$PATH</code>. If these commands are not available, call Ex Libris Customer Support to have the commands added.</p>	<pre>su - oracle echo \$ORACLE_HOME echo \$ORACLE_SID</pre> <p>which make which ar which ld which nm</p> <p>For Linux: which gcc</p>

5) For Linux x86\_64 servers:

Check to confirm that the OLAP components are valid in the database. Query the database with the queries below. For all other operating system environments, skip this step and step 6 and continue with step 7.

```
SQL> select value from v$option where  
parameter='OLAP';  
VALUE  
-----  
FALSE
```

If the VALUE is TRUE for the parameter='OLAP' in the v\$option table, skip the OLAP patch in step 6, and proceed with the CPU patch.

If the VALUE is FALSE for the OLAP parameter in the v\$option table, or OPTION OFF for OLAP in the dba\_registry table, perform the OLAP patch in step 6.

```
su - oracle  
sqlplus / as sysdba  
  
startup  
  
select value from v$option where  
parameter='OLAP';  
  
select comp_name, status from dba_registry  
where comp_name like '%OLAP%';  
  
shutdown immediate  
quit
```

<p>6) For Linux x86_64 servers and where OLAP is FALSE or OPTION OFF as determined in step 5: Apply the OLAP patch (see the steps below) using the commands in the right column.</p> <p>a) Backup the existing <code>olap</code> directory and remove it from <code>\$ORACLE_HOME</code>.</p> <p>b) Reinstall it from the <code>OLAP_o10204_Linux.tar.bz2</code> package.</p> <p>c) Chmod the <code>olap</code> directory to 0755.</p> <p>d) Execute the <code>make -f</code> commands to turn the OLAP on.</p> <p>e) Connect to the database as <code>sysdba</code>, start up the database in normal mode, and run the <code>olap.sql</code> script with <code>SYSAUX TEMP</code> arguments.</p> <p>f) Recompile objects using <code>utlrp.sql</code>.</p> <p>g) Check the OLAP components again in the <code>dba_registry</code> table to ensure everything is valid.</p> <pre>SQL&gt; select comp_name, status from dba_registry where comp_name like '%OLAP%' SQL&gt; /</pre> <table border="1"> <thead> <tr> <th>COMP_NAME</th> <th>STATUS</th> </tr> </thead> <tbody> <tr> <td>-----</td> <td>-----</td> </tr> <tr> <td>--</td> <td>--</td> </tr> <tr> <td>OLAP Analytic Workspace</td> <td>VALID</td> </tr> <tr> <td>Oracle OLAP API</td> <td>VALID</td> </tr> <tr> <td>OLAP Catalog</td> <td>VALID</td> </tr> </tbody> </table>	COMP_NAME	STATUS	-----	-----	--	--	OLAP Analytic Workspace	VALID	Oracle OLAP API	VALID	OLAP Catalog	VALID	<pre>cd \$ORACLE_HOME tar -cf - olap   bzip2 -c \ &gt; /m1/incoming/oracle_old_olap.tar.bz2 rm -rf olap  bzip2 -dc /m1/incoming/OLAP_o10204_Linux.tar.bz2   tar xvf -  chmod 0755 ./olap make -f \$ORACLE_HOME/rdbms/lib/ins_rdbms.mk olap_on make -f \$ORACLE_HOME/rdbms/lib/ins_rdbms.mk ioracle  sqlplus /nolog connect / as sysdba startup  @?/olap/admin/olap.sql SYSAUX TEMP; @?/rdbms/admin/utlrp.sql select comp_name, status from dba_registry where comp_name like '%OLAP%'; shutdown immediate; quit</pre>
COMP_NAME	STATUS												
-----	-----												
--	--												
OLAP Analytic Workspace	VALID												
Oracle OLAP API	VALID												
OLAP Catalog	VALID												
<p>7) Go to the Oracle home directory. Back up the existing <code>OPatch</code> directory. Remove the existing <code>OPatch</code> directory after it is successfully backed up.</p>	<pre>cd \$ORACLE_HOME tar -cf - OPatch   bzip2 -c \ &gt; /m1/incoming/ORA_old_opatch.tar.bz2 rm -rf OPatch</pre>												
<p>8) Unzip and install the latest update <code>OPatch</code> utility for Oracle 10.2.0 onto <code>ORACLE_HOME</code>.</p>	<pre>cd \$ORACLE_HOME unzip /m1/incoming/p6880880_102000_*.zip</pre>												
<p>9) Change to the <code>OPatch</code> directory and unzip the CPU zip file. A directory called <code>9952272</code> is extracted to the <code>\$ORACLE_HOME/OPatch</code> directory.</p>	<pre>cd \$ORACLE_HOME/OPatch unzip /m1/incoming/p9952272_10204_*.zip</pre>												

<p>10) Confirm that Oracle is down.</p> <p>Note for AIX: There is a particular CPU problem that involves the file <code>libjox10.a</code> being locked in memory that results in the failure of the CPU. To avoid the problem, run <code>/usr/sbin/slibclean</code> as the root user and rename <code>libjox10.a</code> twice to ensure it is released from the memory.</p>	<pre>ps -fu oracle</pre> <p>For AIX:</p> <pre>su - root /usr/sbin/slibclean su - oracle cd \$ORACLE_HOME/lib mv libjox10.a libjox10.a.orig mv libjox10.a.orig libjox10.a</pre>
<p>11) Apply the CPU patch as the <code>oracle</code> user.</p> <p>Note: This process normally runs for about 15 to 20 minutes.</p> <p>When asked <code>Do you want to proceed?</code>, enter <code>Y</code> (YES) to continue.</p> <p>When you are asked to enter your e-mail address, press <code>Enter</code> to skip this question.</p> <p>When asked <code>Do you wish to remain uninformed of security issues ([Y]es, [N]o) [N]:</code>, type <code>Y</code> to continue.</p> <p>When asked <code>Is the local system ready for patching? [y n]</code>, type <code>Y</code> to continue.</p>	<pre>cd \$ORACLE_HOME/OPatch ./opatch napply 9952272 -skip_subset - skip_duplicate</pre>

```
=> ./opatch napply 9952272 -skip_subset -
skip_duplicate
Invoking OPatch 10.2.0.5.0

Oracle Interim Patch Installer version 10.2.0.5.0
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UTIL session

Oracle Home      :
/oracle/app/oracle/product/10.2.0/db_1
Central Inventory :
/oracle/app/oracle/oraInventory
  from            :/etc/oraInst.loc
OPatch version   : 10.2.0.5.0
OUI version      : 10.2.0.4.0
OUI location     :
/oracle/app/oracle/product/10.2.0/db_1/oui
Log file location :
/oracle/app/oracle/product/10.2.0/db_1/cfgtoollog
s/opatch/opatch2010-10-21_14-29-25PM.log

Patch history file:
/oracle/app/oracle/product/10.2.0/db_1/cfgtoollog
s/opatch/opatch_history.txt

Invoking utility "napply"
Checking conflict among patches...
Checking if Oracle Home has components
required by patches...
Checking skip_duplicate
Checking skip_subset
Checking conflicts against Oracle Home...
OPatch continues with these patches: 10013975
10014009 10014012 10014015 7155248 7155249
7155250 7155251 7155252 7155253 7155254
7197583 7375611 7375613 7375617 7609057
8309592 8309632 8568395 8568397 8568398
8568402 8568404 8568405 8836667 8836671
8836675 8836677 8836678 8836681 8836683
8836684 8836686 9173244 9173253 9442328
9442331 9442339 9678690 9678695 9678697
9952272
```

Do you want to proceed? [y|n]

y

User Responded with: Y

Running prerequisite checks...

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

OPatch detected non-cluster Oracle Home from the inventory and will patch the local system only.

Please shutdown Oracle instances running out of this ORACLE\_HOME on the local system.

(Oracle Home =

'/oracle/app/oracle/product/10.2.0/db\_1')

Is the local system ready for patching? [y|n]

y

User Responded with: Y

Backing up files affected by the patch 'NApply' for restore. This might take a while...

The local system has been patched and can be restarted.

UtilSession: N-Apply done.

OPatch succeeded.

<p>12) Complete the Post-CPU process by applying the CPU scripts (<code>catbundle.sql</code>) to a running Oracle instance. Connect as <code>sysdba</code>, start the database, and run the <code>catbundle.sql</code> script. This process takes about 15 to 20 minutes depending on your server performance.</p> <p>Check the following log files located in <code>\$ORACLE_HOME/cfgtoollogs/catbundle</code> for errors:</p> <pre>catbundle_CPU_VGER_APPLY_&lt;TIMESTAMP&gt;.log catbundle_CPU_VGER_GENERATE_&lt;TIMESTAMP&gt;.log</pre> <p>Note for AIX: If you receive warnings at the end such as <code>OUI-67302</code>, ignore them.</p>	<pre>cd \$ORACLE_HOME/rdbms/admin sqlplus /nolog connect / as sysdba  startup  @catbundle.sql cpu apply</pre>
<p>13) Verify if you need to recompile views inside Oracle.</p> <p>If the return of <code>COUNT</code> is 1 or more, skip step 14 and continue with step 15. If the return of <code>COUNT</code> is 0 (zero), proceed with step 14.</p> <pre>SQL&gt; select count(*) from registry\$history where ID = '6452863'; COUNT(*) ----- 0</pre>	<pre>select count(*) from registry\$history where ID = '6452863'; shutdown immediate quit;</pre>
<p>14) Run the view recompilation script. Be aware that this script must be run with the database restarted in the <code>UPGRADE</code> mode which restricts connection as <code>sysdba</code>.</p> <p>Note: This script may take from 15 to 30 minutes to complete. Afterwards, shut down the database.</p>	<pre>cd \$ORACLE_HOME/cpu/view_recompile sqlplus /nolog connect / as sysdba startup upgrade @view_recompile_jan2008cpu.sql shutdown immediate quit</pre>

<p>15) Connect as sysdba and start up the database in the NORMAL mode. Run the utlrp.sql to recompile any invalid objects.</p> <p>Note for the MRDN instance on Linux x86: Execute <code>grant execute on utl_file to xdb;</code> prior to loading <code>utlrp.sql</code>.</p> <p>SQL&gt; <code>select object_name from dba_objects where status='INVALID';</code></p> <p>Note for Solaris: If there is an invalid package body called <code>CORR_AQ_92</code> owned by <code>sys</code>, ignore it.</p>	<pre>cd \$ORACLE_HOME/rdbms/admin sqlplus /nolog connect / as sysdba startup  &lt;For instance MRDN on Linux x86&gt; grant execute on utl_file to xdb;  @utlrp.sql select object_name from dba_objects where status='INVALID';  shutdown immediate quit</pre>
<p>16) Run the <code>change_perms.sh</code> script from the <code>\$ORACLE_HOME/install</code> directory to reset the correct file permission on <code>\$ORACLE_HOME</code>. When prompted, type <code>y</code> to continue.</p>	<pre>cd \$ORACLE_HOME/install ./changePerm.sh</pre>
<p>17) Start Oracle. Make sure you are the root user.</p>	<pre>su - root /etc/init.d/dbora start</pre>
<p>18) As the <code>voyager</code> user, test the Oracle database connection. For a split application server, test this from the application server.</p>	<pre>su - voyager sqlplus system/PASSWORD@VGER</pre>
<p>19) Bring the system up. Make sure you are the root user. Start all Ex Libris products on all respective servers where the programs are installed and supposed to be running.</p>	<pre>su - root /etc/init.d/httpd2 start /etc/init.d/voyager start  If Cognos/Analyzer is installed: etc/init.d/cognos start</pre>