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Oracle on OpenVMS Update

An overview

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Safe Harbor Statement

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

Program Agenda

Review of Current Products

Review Oracle Database 11gR2

Oracle on OpenVMS Roadmap

10g Support Dates

- **Extended Support ended 31-Jul-2013**
- **Terminal PSU for both Alpha and Integrity**
 - 10.2.0.5.12 July 2013
- **Limited Extended Support Added For All Platforms**
 - From Aug 2013 through July 2015 Limited Extended Support is available, Sev 1 fixes only (no Patch Set Update (PSU) or Security Patch Update (SPU) will be produced)
- **Additional Extended Support periods will be available for current Extended Support fees**

Limited Extended Support for OpenVMS Integrity

- **Oracle is waiving all Extended Support fees until July 31, 2013** for customers running Oracle Database 10g Release 2 on OpenVMS Integrity. **After July 31, 2013 a Limited Extended Support service will be available through July 31, 2017** to those customers at then-current charges for Extended Support, with the main limitation being that no Patch Set Updates or Critical Patch Updates will be produced. Please see the [Oracle Software Technical Support Policies](#) document (pages 6-7, section 6c) for complete details.

Oracle Database 10gR2 Support Dates

Integrity Platforms	
Platform	Additional Extended Support: S1 Fixes Only
HP OpenVMS on Integrity	August 2013 – July 2017
HP OpenVMS on Alpha	August 2013 – July 2015
HP-UX	August 2013 – Dec 2015
Linux Integrity	August 2013 – Dec 2015
Windows Integrity	August 2013 – Dec 2015

Review of Current Products for the Oracle Database on OpenVMS

- 10.2.0.5.0 Released 31-Oct-2012
 - 10.2.0.5.12 PSU available for Alpha & Integrity
- Grid Control Agent
 - 10.2.0.2 Agent for Integrity and Alpha shipping
 - Patch kit 6 is available

Review of Current Products for Oracle Database on OpenVMS

- 10.2.0.5.0 is a Patch Set
 - Suggest install in a new Oracle home
 - Install initial 10.2.0.2.0 release
 - For Alpha no need to apply any patches
 - For Integrity you should apply the patch 5840282 before applying this patch set
 - No need to install 10.2.0.4.0 before installing 10.2.0.5.0
 - Apply the 10.2.0.5.0 Patch Set
- OpenVMS 8.4 is the minimum OS version for both Alpha and Integrity
- Can be downloaded from My Oracle Support (MOS) – Patch # 8202632

Additional Supported Features

- Mixed Architecture RAC – (MAR)
 - Released supporting 10.2.0.4.0
 - 10.2.0.5.0 is supported
 - Both the Alpha and Integrity systems must run the same version of Oracle – matching patches as far as possible.
- Data Vault
 - Released with 10.2.0.4.0
 - Updated with 10.2.0.5.0

Oracle MySupport OpenVMS Information

- **OpenVMS: Master Note for Oracle 10.2 on hp OpenVMS**
 - [\[ID 726914.1\]](#)
- **OpenVMS: Oracle Release 10gR2 Mixed Architecture (Multi-Home) CRS/RAC Installation on hp Integrity and Alpha**
 - [\[ID 785970.1\]](#)
- **OpenVMS: Getting started with the 10.2 Grid Control Agent on OpenVMS**
 - [\[ID 739445.1\]](#)
- **Installing AV Agent 10.2.3.2 on HP OpenVMS**
 - [\[ID 1111278.1\]](#)
 - Master Note For Oracle Audit Vault
 - [\[ID 1199033.1\]](#)

Review of Oracle Database 11gR2

Oracle Database 11gR2 on OpenVMS

- Will be a full release - Server/Client Kit
 - Web images
 - No instant client
- Will provide new Oracle features to OpenVMS Integrity
 - Note: An incremental set of features will be available for OpenVMS
 - Not all Oracle features will be available on OpenVMS

OpenVMS 11g Porting Environment (VPE)

- Integrity OpenVMS only planned
- 11gR2 only available for OpenVMS 8.4
 - We use OpenVMS sym-links to create the release
- We are doing labels and builds every two weeks as a default
 - This is including completing core testing
- 40% larger than 10.2.0.5.0

Status September 2014

- November 2012 we resumed 11.2.0.2.0
 - Merged all changes from 10.2.0.5.0 release
- Skipped 11.2.0.3.0
- Base Released 11.2.0.4.0 in August 2013
 - We merged to 11.2.0.4.0 label
 - Starting Q3CY2013
 - Three months of work
 - CY2014
 - Operating System Code (OSD) development continues
 - Short regressions in process
 - Long regressions started

Status September 2014

- 11.2.0.4.0 is final Patch Set for the 11.2 code line
 - PSU planned available until at least Jan 2018 See MOS note 742060.1
 - Plan is to release the current PSU approximately the same time as our 11gR2 release

Status September 2014

- Approximately 1.1 Million entries in the label
 - 216110 source files
 - .c,.h,.cpp,.hpp,.java .hxx .pl .pm
 - 304705 support files and test files
 - Makefile,.mk,.tsc,.log

Status September 2014

- End of August
 - 5743 files have been branched for OpenVMS
 - 2379 source files
 - 1080 support files
 - 2284 various other
 - .txt .com ,sql ,sqlj .xml {installer files}

Porting Issues Encountered

- Compile time issues
 - Uninitialized variables
 - Type-casting miss matches
 - Implicitly declared routines
 - Compiler directives
 - “_start” and “_end”
 - Unsupported #pragma

Porting Issues Encountered

- Java Porting (yes , there are porting issues with Java)
 - System.getenv() on Open VMS only returns specified variable
 - Linux has option to return all of the environment variables
 - Difference in symbol interpretation
 - i.e. ; : # !
 - Creation of external scripts
 - DCL vs Unix shell
 - Device access
 - Unix references RAW Devices
 - Default Block Size (512 vs 1024)

Porting Issues Encountered

- Build Issue With 11.2.0.4 oracle.exe image too large to link static
 - Implemented shared libraries for the oracle.exe image
 - libcorenls11.so
 - libskgxn2.so
 - libskgxp11.so
 - liborashr11.so

Porting Issues Encountered

- Environment issues
 - Base does component builds
 - OpenVMS does full bundle builds
 - Base does all builds within source control system (ADE)
 - OpenVMS does SRCHOME builds
 - Base promotes Derived Objects
 - OpenVMS utilizes Repositories
 - These differences lead to process contentions that OpenVMS encounters

Porting Issues Encountered

- Environment Issues (cont)
 - Affects build and QA process flow
 - VMS Pool and SGA sizes are larger than Linux defaults
 - Test environment relies on Unix style path's to access
 - OpenVMS has to change scripts to enable
 - "T_WORK", "T_COM", "T_SOURCE"
 - Frequently encounter path too long on OpenVMS

Porting Issues Encountered

- Implementation Issues for Oracle run-time
 - Perl is supported by PLSQL External Procedures
 - Involved adding Perl support within the native framework of the QA and install environment
 - Filename conversion
 - Often encounter strings like this
 - <disk>:[oracle_home.]/trc/trace.dmp

Porting Issues Encountered

- Implementation Issues for Oracle run-time (cont)
 - Mixed case file-name support
 - Implemented changes to the Server Background process
 - \$ define/nolog DECC\$ARGV_PARSE_STYLE ENABLE ! preserve argv case
 - \$ define/nolog DECC\$EFS_CASE_PRESERVE ENABLE ! enable ODS-5 names
 - \$ define/nolog DECC\$EFS_CASE_SPECIAL ENABLE ! enable ODS-5 names
 - \$ define/nolog DECC\$EFS_CHARSET ENABLE ! enable ODS-5 names

QA

QUESTIONS
ANSWERS

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