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Oracle Rdb Product Family Update

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Oracle Database on OpenVMS and Oracle Rdb
Engineering

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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.

Agenda

- Working with VSI and HPE
- Customer Focus
- Oracle Database on VMS Update
 - Support Dates
 - 11g , 10g
 - What's Under Development
 - Roadmap
- Oracle Rdb Update
 - Support Dates
 - Recent Releases
 - What's Under Development
 - Roadmap

Working with VSI and HPE

- Oracle remains in close contact with both VSI and HPE
 - In resolution of customer issues
 - Oracle OpenVMS dependencies
 - Development Projects (e.g. new VSI TCP/IP, Java 1.8)
 - Customer Events
 - Bi-monthly conference calls with HPE
 - As needed communication with VSI (often weekly)
 - Hardware, Software
 - Staffing
- Participation in EMEA HPUG events, e.g. London, May, 2018
- Monthly meetings with HPE Japan
- Efforts to strengthen working relationships between Oracle/VSI in progress

Oracle on OpenVMS and Oracle Rdb Marketing Focus

- Focus on meeting our customers' needs
- [Rdb Web page](#), Rdb Web Journal, My Oracle Support, OTN
- Rdb management personal customer visits /meetings
- Events
 - HPE and VSI Events
 - OpenVMS SIG Groups
- **Customer Events (2018)**
 - Connect Deutschland, May
 - Swedish OpenVMS SIG, May
 - UK OpenVMS SIG, May
 - EMEA Update Sessions, November
 - Japan Customer Visits, December
- **Boot Camp & Oracle Technical Forums (2019)**
 - North American Update Sessions, Jan/Feb
 - Boot Camp - Fall
 - Forums to follow Boot Camp
 - EMEA, North America, Asia

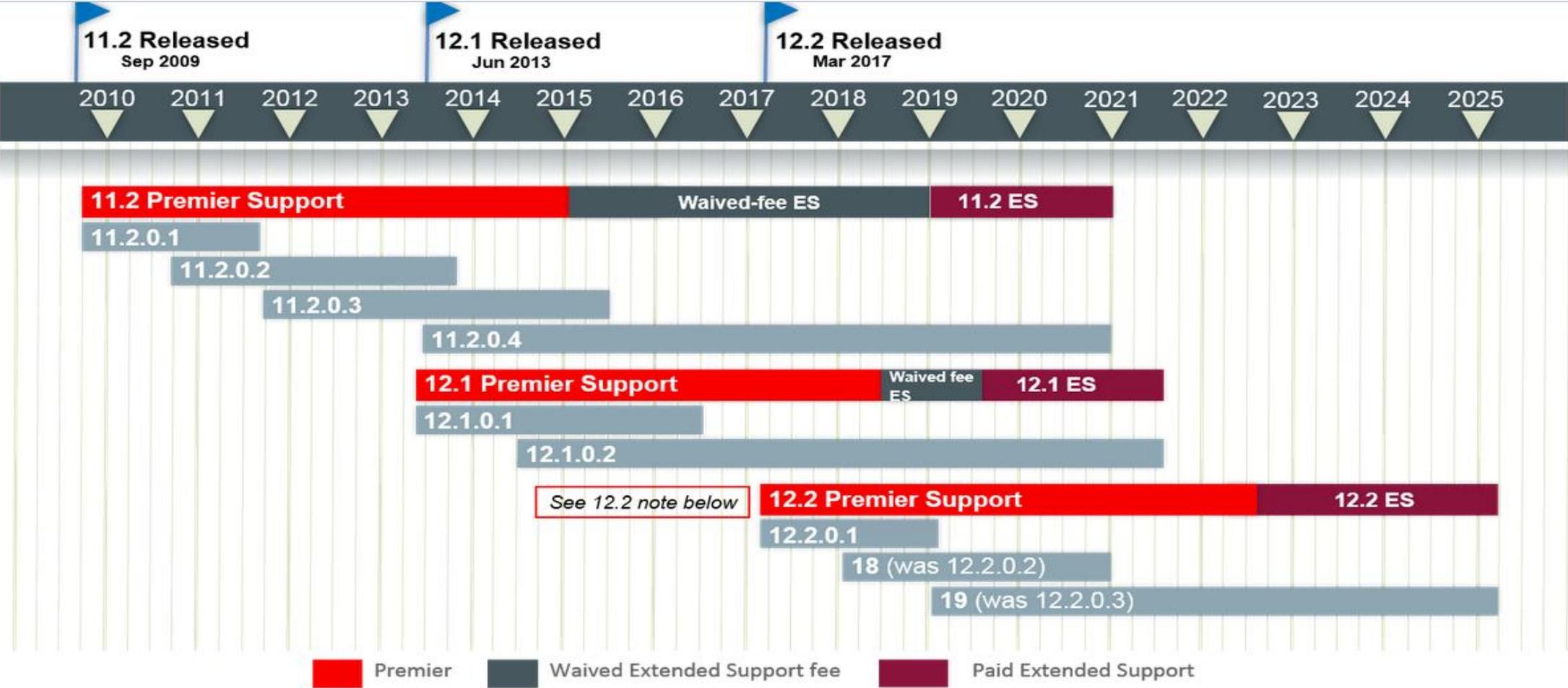
Oracle's Lifetime Support Policy

- **Oracle Premier Support** provides customers with maintenance and support of Oracle software on Itanium servers for five years from the general availability date of the software release.
- **Oracle Extended Support** provides customers with an extra three years of support for specific Oracle releases for an additional fee. Customers benefit from the same quality of service received with Oracle Premier Support, with the security of knowing they can migrate their software to a new platform when the time is right.
- **Oracle Sustaining Support** customers will receive technical support for as long as they operate their Itanium-based systems—including access to online support tools, knowledge bases, pre-existing fixes and assistance from technical support experts.
- [Oracle Lifetime Support](#)

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

Oracle 11g & 12c Support Dates



Oracle 11g OpenVMS Patch Set Updates (PSUs)

- 11.2.0.4.190115DBPSU – January, 2019
- 11.2.0.4.181016DBPSU – November, 2018
- 11.2.0.4.180717DBPSU – July, 2018
- 11.2.0.4.180417DBPSU – April, 2018
- 11.2.0.4.180116DBPSU – January, 2018
- 11.2.0.4.171017DBPSU – October, 2017
- 11.2.0.4.170718DBPSU – July, 2017

Oracle 11g OpenVMS Patch Set Updates (PSUs) – cont.

- 11.2.0.4.170418DBPSU – April, 2017
- 11.2.0.4.161018DBPSU - October, 2016
- 11.2.0.4.160719DBPSU - July, 2016
- 11.2.0.4.10 - April, 2016
- 11.2.0.4.9 - January, 2016
- 11.2.0.4.8 - October, 2015
- 11.2.0.4.7 - July, 2015

11.2.0.4.190115DBPSU on MOS

Close



Patch 28729262: DATABASE PATCH SET UPDATE 11.2.0.4.190115

Last Updated Jan 16, 2019 4:55 PM (10 days ago)

Product Oracle Database - Enterprise Edition
(More...)

Release Oracle 11.2.0.4.0

Platform HP OpenVMS Itanium

Size 119.5 MB

Download Access Software

Classification General

Patch Tag

Release Oracle 11.2.0.4.0

Platform HP OpenVMS Itanium

Language American English

Read Me

Download

Add to Plan

Analyze with OPatch...

Bugs Resolved by This Patch

- 10136473 CELLSRV FAILS DUE TO ORA-7445 [KAF4F0RST9IR2SRP1]
- 11733603 ORA-54 WITH SELECT STATEMENT USING NOWAIT CLAUSE WITH NO CONCURRENT ACTIVE TX
- 11883252 REDO TRANSPORT STREAMING NOT SUPPORTED WITH ALL MIXED VERSION CONFIGURATIONS

All-time Downloads 1

View Trends

11g and 10g Certifications on VSI OpenVMS Versions

- Itanium (i6)
 - 8.4-2L1
- Itanium (i4 and i2)
 - 8.4-2L1
 - 8.4-2
 - 8.4-1H1
- Alpha (Oracle Rdb Only)
 - 8.4-2L1
 - 8.4-2L2 (optimized for EV56 and higher)
 - Certification completed

Itanium OpenVMS Certification Matrix (Doc ID 377470.1)

Support Matrix for hp ITANIUM OpenVMS versions and Oracle Server releases

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Last Update: 10-May-2018  
 Updated by: Dave Hayter

ITANIUM/OpenVMS (Refer to [Note:377480.1](#) for recommended OpenVMS ECO levels)

| 8.2-1      | 8.3          | 8.3-1H1    | 8.4          | 8.4-1H1      | 8.4-2        | 8.4-2L1      |
|------------|--------------|------------|--------------|--------------|--------------|--------------|
|            |              |            | **see Note A | **see Note B | **see Note B | **see Note C |
|            |              |            | 11.2.0.4.0   | 11.2.0.4.0   | 11.2.0.4.0   | 11.2.0.4.0   |
|            |              |            | **see Note D |              | **see Note H | **see Note H |
|            |              |            | 10.2.0.5.0   | 10.2.0.5.0   | 10.2.0.5.0   | 10.2.0.5.0   |
|            |              |            | **see Note E |              |              | **see Note J |
| 10.2.0.4.0 | 10.2.0.4.0   | 10.2.0.4.0 | 10.2.0.4.0   |              |              |              |
| 10.2.0.2.0 | 10.2.0.2.0   | 10.2.0.2.0 |              |              |              |              |
|            | **see Note F |            |              |              |              |              |



# Itanium OpenVMS Certification Matrix (Doc ID 377470.1)

(For hp ALPHA OpenVMS Certification matrix - see [Note:62150.1](#))

Please refer to the following document for information on release schedules:

[Document 742060.1](#) Release Schedule of Current Database Releases

Please note that at this time, we do not support the Oracle RDBMS and related products running on OpenVMS as a guest operating system (e.g Virtual Machines)

- A. OpenVMS 8.4 Oracle certification includes HP Integrity i2 (Tukwila) hardware.
- B. OpenVMS 8.4-1H1 and 8.4-2 Oracle certification includes HP Integrity i4 (Poulson) and i2 (Tukwila) hardware.
- C. OpenVMS 8.4-2L1 Oracle certification includes HP Integrity i6 (Kittson), i4 (Poulson) and i2 (Tukwila) hardware.
- D. Oracle Server/Client Release 11.2.0.4 (11gR2) for Itanium OpenVMS was released on 23rd July 2015.

This release requires a minimum of OpenVMS 8.4

The install kits are currently available for download on Oracle Technology Network :

<http://www.oracle.com/technetwork/database/enterprise-edition/downloads/index.html>

Please note that Oracle Clusterware/RAC 11gR2 will be released at a later date.

- E. Patch set 10.2.0.5 was announced 31st October 2012 and is now available from the MyOracleSupport (MOS) patches dow

# Alpha OpenVMS Certification Matrix (Doc ID 62150.1)

ALPHA/OpenVMS (Refer to [Note:170199.1](#) for recommended OpenVMS ECO levels)

| 7.1 | 7.2 | 7.3           | 8.2           | 8.3        | 8.4           |
|-----|-----|---------------|---------------|------------|---------------|
|     |     | ** see Note L | ** see Note M |            |               |
|     |     |               |               |            | 10.2.0.5.0    |
|     |     |               |               |            | ** see Note A |
|     |     |               | 10.2.0.4.0    | 10.2.0.4.0 | 10.2.0.4.0    |
|     |     |               | 10.2.0.2.0    | 10.2.0.2.0 |               |
|     |     |               | ** see Note B |            |               |
|     |     | 10.1.0.5.0    | 10.1.0.5.0    | 10.1.0.5.0 |               |
|     |     | 10.1.0.3.0    | 10.1.0.3.0    | 10.1.0.3.0 |               |
|     |     |               | ** see Note C |            |               |

# What Oracle 11g Client Kit Provide to OpenVMS

- Client/Server Interoperability Support to future database releases
- Standard Supported client tools (next slides)
- Upgraded Security Functionality
- Gives you the ability to continue to run your application on VMS while connecting to the database server platform of your choice (either to a VMS server or to other platforms supported by Oracle).

# Client / Server / Interoperability Support Matrix For Different Oracle Versions [ID 207303.1]

| Client Version       | Server Version        |                   |                   |                   |                   |                   |                   |
|----------------------|-----------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|                      | 12.2.0 <sup>#10</sup> | 12.1.0            | 11.2.0            | 11.1.0            | 10.2.0            | 10.1.0            | 9.2.0             |
| 12.2.0               | Yes                   | Yes               | Yes               | No                | No                | No <sup>#3</sup>  | No <sup>#3</sup>  |
| 12.1.0               | Yes                   | Yes               | Yes               | Was               | MDS <sup>#7</sup> | No <sup>#3</sup>  | No <sup>#3</sup>  |
| 11.2.0               | Yes <sup>#9</sup>     | Yes               | Yes               | Was               | MDS <sup>#7</sup> | No                | Was <sup>#5</sup> |
| 11.1.0               | No                    | Was               | Was               | Was               | Was <sup>#7</sup> | Was <sup>#6</sup> | Was <sup>#5</sup> |
| 10.2.0               | No                    | MDS <sup>#7</sup> | MDS <sup>#7</sup> | Was <sup>#7</sup> | MDS               | Was               | Was <sup>#5</sup> |
| 10.1.0 <sup>#4</sup> | No                    | No                | Was <sup>#6</sup> | Was <sup>#6</sup> | Was               | Was               | Was               |
| 9.2.0                | No                    | No <sup>#8</sup>  | Was <sup>#5</sup> | Was <sup>#5</sup> | Was <sup>#5</sup> | Was               | Was               |

## Key:

|            |                                                                                                                                                                                                                      |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Yes        | Supported                                                                                                                                                                                                            |
| ES         | Supported but fixes only possible for customers with <a href="#">Extended Support</a> .                                                                                                                              |
| LES or MDS | Supported but fixes only possible for customer with a valid Limited Extended Support or Market-Driven Support contract respectively.                                                                                 |
| Was        | Was a supported combination but one of the releases is no longer covered by any of Premier Support, Primary Error Correct support, Extended Support, nor Extended Maintenance Support. Fixes are no longer possible. |
| No         | Has never been Supported                                                                                                                                                                                             |

# 11g Client Kit Contents

- Oracle SQLJ
- Oracle Database Utilities
- Oracle Java Client
- SQL\*Plus
- Oracle JDBC/THIN Interfaces
- Oracle Internet Directory Client
- Oracle Call Interface (OCI)
- Oracle Programmer
- Oracle XML Development Kit
- Oracle Advanced Security
- Enterprise Manager Minimal Integration
- OLAP Analytic Workspace Manager and Worksheet
- Oracle Net

## 11g Client Kit Contents (cont.)

- Oracle Connection Manager
- Oracle Net Listener
- Oracle Multimedia Client Option
- Oracle ODBC Driver
- Oracle Clusterware High Availability API
- Oracle SQL Developer
- Oracle Scheduler Agent
- Oracle Services For Microsoft Transaction Server
- Oracle Administration Assistant for Windows
- Oracle Counters for Windows Performance Monitor
- Oracle Objects for OLE
- Oracle Provider for OLE DB
- Oracle Data Provider for .NET
- Oracle Providers for ASP.NET

# Oracle Rdb Product Family Update

# What Products Make up The Rdb Product Family?

- Oracle Rdb Server
- Oracle CODASYL DBMS
- Oracle Trace
- Oracle CDD/Repository
- Oracle JDBC for Rdb
- Oracle Rdb Developer Tools for Visual Studio
- Oracle Rdb Connectivity Manager
- Oracle Rdb Extension for SQL Developer
- Oracle Rdb Extension for Oracle Enterprise Manager
- Oracle ODBC Driver for Rdb
- Oracle SQL/Services & OCI Services for Oracle Rdb
- Oracle Replication Option

# Rdb Product Family Lifetime Support Dates

## Oracle Rdb and Oracle CODASYL Database Releases

| Release | GA Date  | Premier Support Ends | Extended Support Ends | Sustaining Support Ends |
|---------|----------|----------------------|-----------------------|-------------------------|
| 7.0     | Oct 1996 | Aug 2007             | Aug 2009              | Indefinite              |
| 7.1     | Jul 2001 | Dec 2007             | Dec 2010              | Indefinite              |
| 7.2     | Jan 2006 | Jul 2015             | Jul 2017              | Indefinite              |
| 7.3     | Mar 2011 | Sep 2020             | Sep 2023              | Indefinite              |

See: <http://www.oracle.com/us/support/library/lifetime-support-technology-069183.pdf>

# Oracle Rdb Certifications

## Oracle Rdb V7.3

| Release | Release Date                                                            | Version  | Alpha |         |                                | Itanium               |                         |                           | Update |
|---------|-------------------------------------------------------------------------|----------|-------|---------|--------------------------------|-----------------------|-------------------------|---------------------------|--------|
|         |                                                                         |          | Min   | Max     | Kits <sup>1</sup> <sub>1</sub> | Min                   | Max                     | Newest Processor          |        |
| 7.3.3.0 | June 2018<br><b>REPLACEMENT</b><br>see <a href="#">Doc ID 2408303.1</a> | V7.3-300 | 8.4   | 8.4-x   | <a href="#">.1</a>             | <a href="#">8.4</a>   | <a href="#">8.4-x</a>   | i6 (Kittson) <sup>2</sup> | 1      |
| 7.3.3.0 | May 2018<br><b>WITHDRAWN</b>                                            | V7.3-300 |       |         |                                |                       |                         | i6 (Kittson) <sup>2</sup> |        |
| 7.3.2.1 | Mar 2017                                                                | V7.3-210 | 8.4   | 8.4-2L2 | <a href="#">.1</a>             | <a href="#">8.4</a>   | <a href="#">8.4-2L1</a> | i6 (Kittson) <sup>2</sup> | 3      |
| 7.3.2.0 | Mar 2016                                                                | V7.3-200 | 8.4   | 8.4-2L1 | <a href="#">.1</a>             | <a href="#">8.4</a>   | <a href="#">8.4-2L1</a> | i4 (Poulson)              | 5      |
| 7.3.1.3 | Oct 2015                                                                | V7.3-130 | 8.3   | 8.4-x   | <a href="#">.1</a>             | <a href="#">8.3</a>   | <a href="#">8.4-2L1</a> | i4 (Poulson)              | 1      |
| 7.3.1.2 | Oct 2014                                                                | V7.3-120 | 8.3   | 8.4-x   | <a href="#">.1</a>             | <a href="#">8.3</a>   | <a href="#">8.4-1H1</a> | Tukwila                   | 2      |
| 7.3.1.1 | Feb 2014                                                                | V7.3-110 | 8.3   | 8.4-x   | <a href="#">.1</a>             | <a href="#">8.2-1</a> | <a href="#">8.4</a>     | Tukwila                   | 1      |
| 7.3.1.0 | Sep 2013                                                                | V7.3-100 | 8.3   | 8.4-x   | <a href="#">.1</a>             | <a href="#">8.2-1</a> | <a href="#">8.4</a>     | Tukwila                   | None   |

**Rdb V7.3 is in premier support.**

<sup>1</sup>The ALPHA version is optimized for EV56 or later processors and shown as V7.3-nn1. Older, pre-EV56 processors are not supported.  
<sup>2</sup>Minimum OpenVMS for i6 systems is 8.4-2L1

Source: Comprehensive Rdb versions and Compatibility Matrix (MOS Doc ID 66/29.1)

# Oracle Rdb Certifications (cont.)

## Oracle Rdb V7.2

| Release | Release Date | Version  | Alpha |       |                                         | Itanium               |                         |           | <a href="#">Update</a> |
|---------|--------------|----------|-------|-------|-----------------------------------------|-----------------------|-------------------------|-----------|------------------------|
|         |              |          | Min   | Max   | Kits <u>1</u>                           | Min                   | Max                     | Processor |                        |
| 7.2.5.8 | May 2017     | V7.2-580 | 8.2   | 8.4-x | <a href="#">.0</a> / <a href="#">.1</a> | <a href="#">8.2-1</a> | <a href="#">8.4-1H1</a> | i2        | None                   |
| 7.2.5.7 | Aug 2015     | V7.2-570 | 8.2   | 8.4-x | <a href="#">.0</a> / <a href="#">.1</a> | <a href="#">8.2-1</a> | <a href="#">8.4-1H1</a> | Tukwila   | None                   |
| 7.2.5.6 | Apr 2015     | V7.2-560 | 8.2   | 8.4-x | <a href="#">.0</a> / <a href="#">.1</a> | <a href="#">8.2-1</a> | <a href="#">8.4-1H1</a> | Tukwila   | None                   |
| 7.2.5.5 | Jun 2014     | V7.2-550 | 8.2   | 8.4-x | <a href="#">.0</a> / <a href="#">.1</a> | <a href="#">8.2-1</a> | <a href="#">8.4</a>     | Tukwila   | None                   |
| 7.2.5.4 | Feb 2014     | V7.2-540 | 8.2   | 8.4-x | <a href="#">.0</a> / <a href="#">.1</a> | <a href="#">8.2-1</a> | <a href="#">8.4</a>     | Tukwila   | None                   |
| 7.2.5.3 | July 2013    | V7.2-530 | 8.2   | 8.4-x | <a href="#">.0</a> / <a href="#">.1</a> | <a href="#">8.2-1</a> | <a href="#">8.4</a>     | Tukwila   | None                   |

Source: Comprehensive Rdb Versions and Compatibility Matrix (MOS Doc ID 66729.1)

# Oracle CODASYL DBMS Certifications

## Oracle CODASYL DBMS V7.3

| Release | Release Date | Version | Alpha |         |                                | Itanium             |                         |                          | <a href="#">Update</a> |
|---------|--------------|---------|-------|---------|--------------------------------|---------------------|-------------------------|--------------------------|------------------------|
|         |              |         | Min   | Max     | Kits <sup>1</sup> <sub>—</sub> | Min                 | Max                     | Processor                |                        |
| 7.3.1   | Nov 2013     | V7.3-10 | 8.3   | 8.4-2L2 | <a href="#">8.3/8.4-2L1</a>    | <a href="#">8.3</a> | <a href="#">8.4-2L1</a> | i6(Kittson) <sup>2</sup> |                        |

**DBMS V7.3 is in premier support.**

<sup>1</sup>The ALPHA version is optimized for EV56 or later processors. Older, pre-EV56 processors are not supported.  
<sup>2</sup>Minimum OpenVMS for i6 systems is 8.4-2L1

Source: Comprehensive Rdb Versions and Compatibility Matrix (MOS Doc ID 66767.1)

# Rdb Product Family Releases Over the Past 2 Years

- **SQL/Service 7.3.2.4, January, 2019**
- **RMU and SQL Reference Manuals, November, 2018**
- **Rdb 7.3.3.0 , Update 2, September, 2018**
- **Rdb 7.3.3.0 , Update 1, July, 2018**
- **Rdb 7.3.3.0 , May, 2018**
- **Oracle Rdb Extension for SQL Developer 7.3.3, May, 2018**
- **Oracle Rdb Developer Tools for Visual Studio, 7.3.6.0, March 2018**
- **Oracle JDBC for Rdb 7.3.5.1, March, 2018**
- **Rdb 7.3.2.1 , Update 3, November, 2017**
- **Rdb 7.3.2.1, Update 2, September, 2017**
- **Oracle JDBC for Rdb 7.3.5, August, 2017**
- **Rdb Connectivity Management, 7.3.2.0, August, 2017**
- **Rdb 7.3.2.1, Update 1, June, 2017**
- **Rdb 7.2.5.8, May, 2017**
- **Oracle Rdb ODBC 3.3.2.5 , April, 2017**
- **Rdb 7.3.2.1, March , 2017**
- **SQL/Services 7.3.2.3, March, 2017**
- **Rdb 7.3.2, Update 4, March, 2017**
- **Rdb 7.3.2, Update 3, November, 2016**
- **Rdb 7.3.2, Update 2, September, 2016**

## Rdb 7.2.5.8, May, 2017

- Download from My Oracle Support
  - Patch 26167807 for Itanium
  - Patch 26167817 for Alpha
- Problems fixed in this release include::
  - Unexpected Alignment Faults When Converting Floating Values to Text
  - Unexpected SQL Bugchecks When the Logical RDM\$BIND\_KODA\_DEBUG is Defined
  - Unexpected Bugcheck After an Exception is Reported Inserting LIST OF BYTE VARYING Column
  - Unexpected Bugcheck Generated When NOT LIKE Used With a Literal

# Rdb 7.3 Releases

- V7.3.1 - September 2013
- V7.3.1.1 - February 2014
  - Update 1, OCT, 2014
- V7.3.1.2 - October 2014
  - Update 1, October, 2014
  - Update 2, January, 2015
  - Update 3, February, 2015
- V7.3.1.3 – September, 2015
  - Update 1 – October, 2015
    - This includes the same patches as Update 3 for V7.3.1.2

# Rdb 7.3 Releases (Continued)

- V7.3.2 – March, 2016
  - Update 1, May, 2016
  - Update 2, September, 2016
  - Update 3, November, 2016
  - Update 4, March, 2017
- V7.3.2.1, March, 2017
  - Update 1, June, 2017
  - Update 2, September, 2017
  - Update 3, November, 2017
- V7.3.3.0 – May, 2018
  - Update 1, July, 2018
  - Update 2, September, 2018

# Sample of Problems Fixed in 7.3.x + Capabilities

- i6 and i4 (Kittson, Poulson)
- Wrong Results
- Alignment Faults
- Bugchecks
- Log Miner
- Performance (Optimizer)
- RMU Show Statistics
- Sorted Ranked Index
  - e.g. Unexpected Bugcheck When Updating a SORTED
- Hot Standby

# Rdb 7.3.3.0 Update 2, September, 2018

- This is a Mandatory Update
- Available on My Oracle Support with the following patch set numbers:
  - I64: 28644697
  - Alpha: 28644678
- Problems Fixed
  - Unexpected Results for Queries Using Query Rewrite of AND/OR Operators
    - Rdb was applying the AND logic when, under the NOT operator, OR logic should have been applied
    - Workaround to this problem is to execute SET FLAGS prior to executing the query or by defining RDMS\$SET\_FLAGS prior to running the application.
  - Update 1 fix

# Rdb 7.3.3.0 Update 1, July, 2018

- Now Superseded by Update 2
- Available on My Oracle Support with the following patch set numbers:
  - I64: 28353532
  - Alpha: 28353521
- Problem Fixed
  - Problem corrected that affected Oracle JDBC for Rdb when attempting to connect to databases with synonyms enabled.
  - Databases without SYNONYMS enabled are not affected by this problem

# Oracle Rdb 7.3.3 Available for Download

## Patch Details



### Patch 28076644: ORACLE RDB RELEASE 7.3.3.0 (IMV)

Last Updated Jun 14, 2018 11:51 AM (4+ months ago)

Product Oracle Rdb Server on OpenVMS

Release RDB 7.3

Platform HP OpenVMS Itanium

Size 87.4 MB

Download Access Software

Classification General

Patch Tag

### Bugs Resolved by This Patch

List of bugs fixed is not available. Consult the Readme.

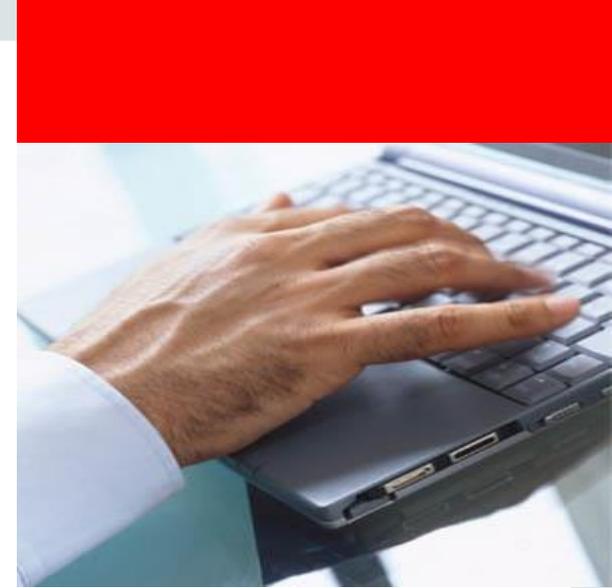
[View Related Knowledge to this Patch](#)

# Rdb 7.3.3.0, Documentation Update

- Now available at <https://www.oracle.com/technetwork/database/database-technologies/rdb/documentation/index.html>
- Rollup release notes to RDB\_NEWFEATURES document
  - Included on each kit (.pdf, .txt, .ps)
  - SYS\$HELP:RDB\_NEWFEATURES\_73xx.PDF
- Rollup new features into documentation
  - Revised SQL Reference Manual \*\* Released November, 2016!
  - Revised RMU Reference Manual \*\* Released November, 2016!
- Generated new HELP for RMU and SQL

# Connectivity: Most Recent Releases

- Oracle SQL/Services
- OCI Services for Oracle Rdb
- Oracle ODBC Driver for Rdb
- Oracle JDBC for Rdb
- Oracle Rdb Connectivity Management (ORCM)
- Oracle Rdb Developer Tools (ORDT)



# Oracle SQL/Services and OCI Services 7.3.2.4

- SQL Services Authentication using LDAP Username/Password
  - Creation of Executor using service owner with LDAP credentials under development
- OCI time zone compatibility fix
  - Issue occurred because Rdb does NOT support Oracle time and timestamp data types with time zone
- Added 'DECLARE TRANSACTION'
  - Databases with "SECURITY IS INTERNAL" could not be prepared for OCI Services without it.
- Allowed Oracle conversion functions to be run without OCI Services.
  - Functions are: TO\_CHAR, TO\_DATE, TO\_NUMBER, TO\_ROWID, ROWID\_TO\_CHAR, TO\_TIMESTAMP, DATE\_ROUND, DATE\_TRUNC

## Oracle SQL/Services and OCI Services 7.3.2.4 (Cont.)

- MLOG\$ and V\$LICENSE tables
    - Added these tables as part of PREPARE in response to a customer bug where MS SQL/Server 2016 using SSMA utility didn't connect because these 2 tables were missing
  - MLOG\$ Information about activity related to materialized views
  - V\$LICENSE Information about current limits of license settings, number of sessions, maximum number of users, cpu and cpu core counts
- \* NOTE: Neither Rdb nor OCI Services inserts rows into either of these tables

# Oracle ODBC Driver for Rdb 3.3.2.5, April, 2017

- Memory allocation failures and invalid results returned if API call includes the "REMARKS" column
- Incorrect value returned for SQLGetInfo(SQL\_FORWARD\_ONLY\_CURSOR\_ATTRIBUTES2)
- SQLGetDiagField (SQL\_DIAG\_CURSOR\_ROW\_COUNT) now returns SQL\_SUCCESS with a value of -1 instead of SQLError
- SQLGetDiagField no longer returns -100 on record 0
- SQLGetDiagField now returns a 64 bit result as needed for SQL\_DIAG\_CURSOR\_ROW\_COUNT and SQL\_DIAG\_ROW\_COUNT

# Oracle ODBC Driver for Rdb – Prior Releases

- 3.3.2.4, October, 2014
- 3.3.2.3, April, 2012
- 3.3.2.2, November, 2011
- 3.3.2.1, April, 2011
- Supported Windows
  - Windows 32bit
    - Windows 7, XP, Vista, Server 2008, Server 2003, 2000,
  - Windows 64bit
    - Windows 7 XP, XP X64, Vista X64, Server 2008 X64, Server 2003 X64

# Oracle JDBC for Rdb 7.3.5.1, March, 2018

- Download from My Oracle Support
  - Patch 27638830 for Itanium
  - Patch 27638813 for Alpha
- Features
  - A Pool Balancing option **PoolOrder** that tells the pool server to select the first pooled server in the pool that has not yet reached its maximum client limit instead of using the default round-robin search.
  - Additional Connection options
- Bug Fixes:
  - Incorrect Date/time Values when Timezones Mismatch
  - New Feature Omission - TimeZone Connection Attributes
  - Incorrect Parameter Initialization in RDBJDBC\_EXECCLI.COM

# Oracle JDBC for Rdb 7.3.5, August, 2017

- Download from My Oracle Support
  - Patch 26630544 for Itanium
  - Patch 26630533 for Alpha
- Features
  - JAVA 8.0 support on Integrity Systems
  - Versioned JDBC driver jars
  - Change in SQL/Services JDBC Dispatcher naming
  - Changes to SHIFT\_JIS JAVA encoding
- Bug Fixes:
  - Small Memory leak with GetTables()
  - DEFAULTSSL definition not inherited
  - Incorrect value for Client and Executor Free Shared Memory

# ORCM 7.3.2, August, 2017

- Download from My Oracle Support

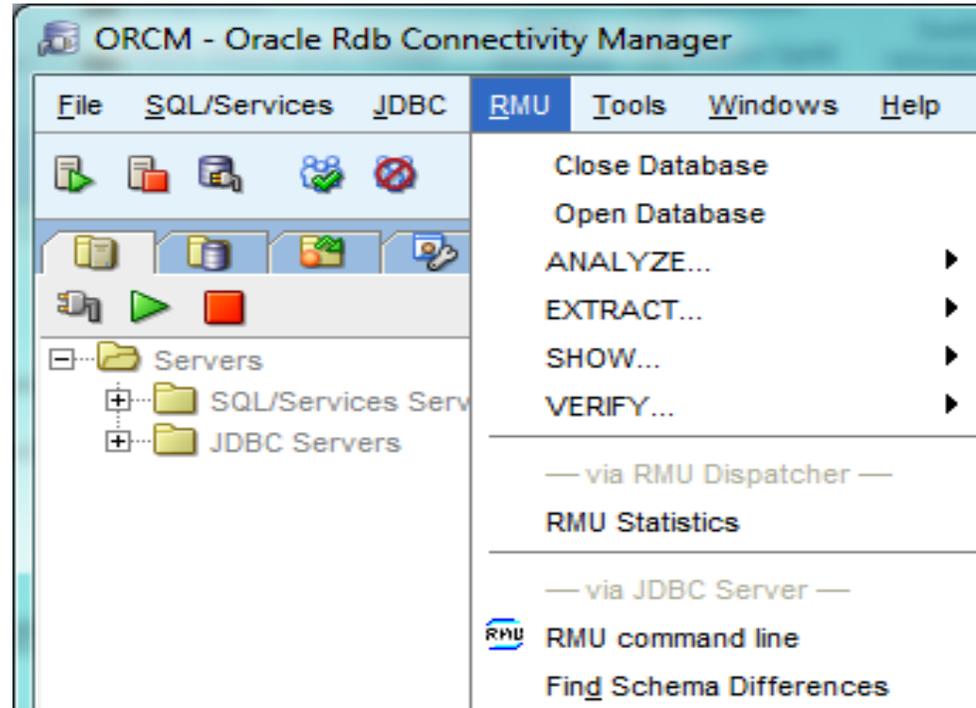
- Patch 26667279 for Windows
- Patch 26667304 for Generic Kit

- Features

- New RMU Menu category
- RMU Statistics
- Find Schema Differences
- External Tool Enhancements

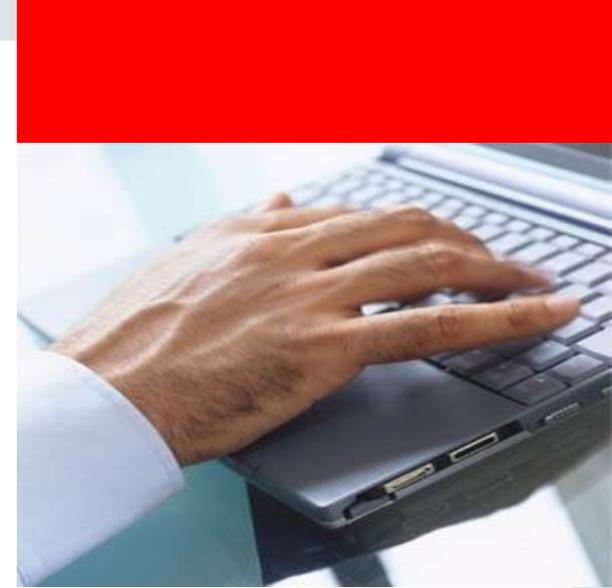
- Bug Fixes:

- Small Memory leak with GetTables()
- DEFAULTSSL definition not inherited
- Incorrect value for Client and Executor Free Shared Memory



# Oracle Rdb Developer Tools

- 7.3.6, March, 2018
  - Available for download from My Oracle Support
    - Patch 27647428
    - Also available on OTN at:  
<http://www.oracle.com/technetwork/database/database-technologies/rdb/downloads/othersoft-087176.html>.
  - Features:
    - Visual Studio 2017 Integration
  - Bugs Fixed
    - Entity Framework6 internal SQL queries returning string truncation error



# Other Oracle Rdb Family Products: Latest Versions

- Oracle CDD/Repository
- Oracle Rdb Extension for SQL Developer



# Oracle CDD/Repository 7.2.0.6.0, July, 2015

- Available on My Oracle Support
  - Patch 21488004 for Itanium
  - Patch 21488027 for Alpha.
- Problems Fixed:
  - Problem when changing a relation with constraints when on OpenVMS 8.4-1H1 Systems.

# Oracle Rdb Extension for SQL Developer Release 7.3.3.0, May, 2018

- Features
  - Allows you to run with SQL Developer 17.4.0.355 and 4.1.3
- Download from My Oracle Support
  - Will be made available on MOS shortly
- Requirements:
  - Oracle JDBC for Rdb release 7.3.4.0.4

# Oracle Rdb: What's Under Development

# Database Vault

- Changes the way Rdb handles OpenVMS privileges
- ALTER DATABASE ...  
DATABASE VAULT IS ENABLED;
- Requires SECURITY privilege to enable
- No longer inherit overrides from current system user
- **\*WARNING\*** Ensure there is a SECURITY user defined in the database because once DATABASE VAULT is enabled you can not use a OpenVMS privilege to change it externally

# Oracle Rdb 7.3.3.1

- Audit

- Improved RMU Extract Item=SECURITY to display complete auditing setup DCL script of RMU commands

- Now generated layout allows larger number of objects and identifiers without exceeding DCL command line length limits

- CREATE DEFAULT AUDIT, ALTER DEFAULT AUDIT, Drop DEFAULT AUDIT Statements

- Creates/Alters/Drops a system template object that is used to provide the audit and alarm characteristics for a newly created object of that type.

- CREATE OR REPLACE support to PROFILE, VIEW and SEQUENCE objects

- RMU Load now supports user defined conversion routines

- Now the user can associated a user written SQL or external routine to transform the data during RMU Load

## Oracle Rdb 7.3.3.1 (cont.)

- New /OUTPUT QUALIFIER to WRITE OUTPUT to a FILE
  - Backup, Restore, RMU MOVE\_AREA and COPY\_DATABASE
  - This qualifier will redirect log output, which can be voluminous, from SYS\$OUTPUT to the specified file.
- RMU SHOW STATISTICS LOGICAL AREA STATISTICS Zoom Menu Fix
  - Problem fixed where starting position of the menu was not adjusted when the Logical Area Statistics screen changed to accommodate terminal page sizes less than 48 rows
- Compression
  - All Backup Data Compression Information is now in the ABS Process Logs
- UNDECLARE CURSOR statement for interactive SQL
  - Closes the named cursor, removes the declared cursor name from the known cursor list

# Oracle SQL/Services and OCI Services 7.4.0

- Support for Oracle 11g Libraries and Oracle 11g Oracle Net Protocol
- OCI Authentication Today
  - Currently users are defined in the USER\$ table
  - We store an encoded password (different encoding to that used by OpenVMS and LDAP servers)
  - This password is used to authenticate with the Oracle server
  - RDB\$NATCONN\_CUPP Utility used to add, modify, remove, and show users enabled for OCI access and to sync with updated VMS passwords
- OCI Authentication with LDAP
  - Specify the password "GLOBAL", indicates (as it does for Oracle users) that authentication will be done using LDAP
  - Users with the password "GLOBAL" in the USER\$ table will be authenticated using the LDAP directory defined in LDAPACME\$INIT, the same LDAP directory used by Rdb for external authentication

# Oracle CDD/Repository 7.4.0

- Customer Driven Enhancements
  - Adding Rdb SQL Features not Previously Supported:
    - Can now integrate into CDD a database that has been prepared for OCI Services
    - Coalesce
      - returns the first non-NULL value from a series of value expressions; otherwise, returns NULL
    - Other capabilities to be added based on demand

# Oracle Trace 7.3.0

- Updating the BLR translator to the 7.3.3 BLR level
  - Will allow Trace to understand new features such as the Trim and Rtrim functions
- Bug Fix: Error condition that wasn't handled correctly when an RUJ file could not be accessed or was improperly specified.
  - Result was a an ACCVIO and Bugcheck

# Oracle Replication Option (ROR) 7.3.0

- Bringing ROR up-to-date with new Rdb 7.2 and 7.3 features
  - Currently some tables can't be replicated due to lack of support for features such as Identity Columns

# Oracle ODBC Driver for Rdb 3.3.2.6

- Built on Visual Studio 2010
- New Help File
- Workaround for OpenText BIQuery (Memory Access Violation when SQLSetStmtAttr(SQL\_ATTR\_MAX\_LENGTH) is set to 4294967295)
- Functionality to redirect ODBC driver logs to a specific location

QUESTIONS  
&  
ANSWERS

# Training Partner List

- **Europe, Asia, Middle East and Africa**

- VX Company

- Baarn, The Netherlands

- <http://www.vxcompany.com/rdbtrainingcourses>



- **Americas**

- JCC Consulting, Inc.

- Granville, Ohio, United States

- <http://www.jcc.com/>



- **Oracle CODASYL DBMS Worldwide**

- Software Concepts International

- Nashua, New Hampshire, United States

- <http://www.sciinc.com/>



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