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# Oracle Database on OpenVMS and Oracle Rdb Product Family Update

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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
  - 10g, 11g
  - 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. x86 Cross Tools)
  - Quarterly meeting with VSI on the x86 port
    - Frequent other communications day-to-day
  - As needed communication with HPE
  - Hardware, Software
- Participation in User Group and Forum events, e.g. Stockholm, November, 2020

# Oracle on OpenVMS and Oracle Rdb Marketing Focus

- **Customer Events:**

- **2021:**

- Connect Deutschland, April
    - Update Sessions, TBD – October/November

- **2020:**

- VMSgenerations, France, November
    - Swedish OpenVMS SIG, November

- **2019:**

- North American Update Sessions: Jan, Feb, Oct
      - New York, Washington, Chicago, Toronto, Redwood Shores, Seattle, Dallas, Scottsdale, Irvine
    - EMEA Update Sessions: May & December
      - Connect Deutschland, UK OpenVMS SIG, Swedish OpenVMS SIG, Netherlands, Belgium, France, Austria
    - Asian Customer Visits, November
      - Japan, China

# Oracle's Lifetime Support Policy

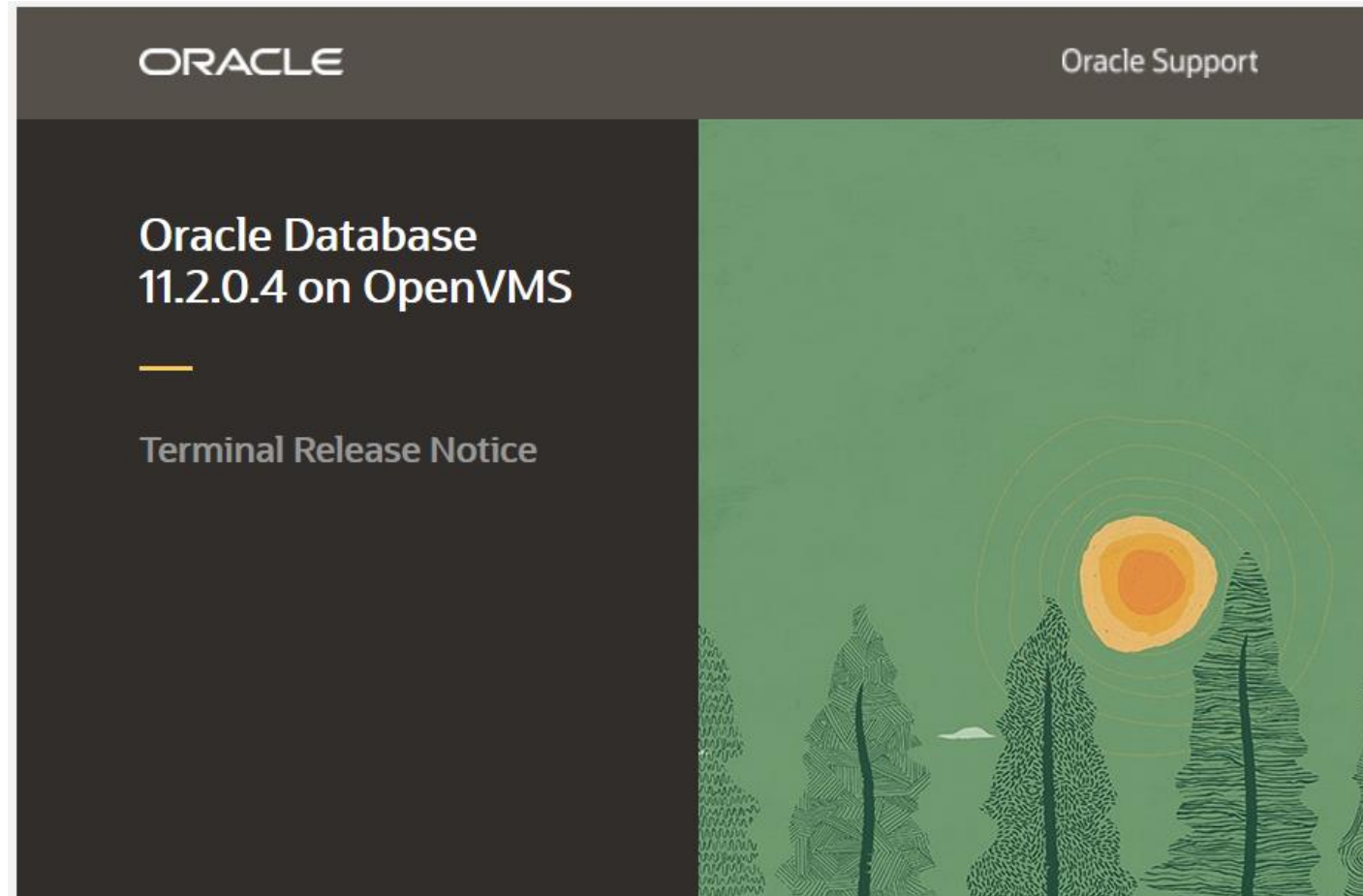
- **Oracle Premier Support** provides customers with maintenance and support of Oracle software on Itanium servers for five years from the general availability date of the software release.
- **Oracle Extended Support** provides customers with an extra three years of support for specific Oracle releases 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



# 11.2.0.4 is the Terminal Release On OpenVMS



# 11.2.0.4 OpenVMS Terminal Release: MOS DOC ID 742060.1

- **NEW Dec 31, 2021 for the OpenVMS platform**

up until the end of Market Driven Support (Dec 31, 2021). Oracle makes no commitment that any 11.2.0.4 DBCS instances will continue to run after the end of MDS support. Market Driven Support is not available for OCI-C DBCS and OCI-C ExaCS.

- **NEW** 11.2.0.4 is the terminal release on OpenVMS. During calendar year 2021, customer will receive Severity 1 Fixes and Security Updates for no additional fees beyond standard Premier Support costs. Coverage does not extend to new certifications, third-party products, or any Java/JDK functionality including Java components embedded in the database. Coverage also excludes any updates related to cryptography and network encryption. This offering does not include standard Security Patch Updates (SPUs).

# Oracle 11.2.0.4 OpenVMS Support

- 11.2.0.4 Extended Support ended December 31, 2020
  - OpenVMS was covered under and ES fee waiver until this then
  - See Software Technical Support Policies (<http://www.oracle.com/us/support/library/057419.pdf>)
    - section on ‘Exceptions for customers with a current support contract running’
- Patch Support continues for Calendar Year 2021
  - P1 and Security fixes only
  - No extra fees beyond Premier Support costs
- Indefinite Sustaining Support After 2021
  - Access to all prior patches + problem resolution and work arounds

# Oracle 11.2.0.4 Market Driven Support

- 2 year program (2021-2022)
- P1 and Security patches
  - See <https://www.oracle.com/a/ocom/docs/ds-mds-database-11g-r2.pdf>
- MDS fees apply
- OpenVMS not currently part of MDS
  - If interested please contact us

# Oracle 11g OpenVMS Patch Set Updates (PSUs)

- 11.2.0.4.210420DBPSU – April, 2021
- 11.2.0.4.210119DBPSU – January, 2021
- 11.2.0.4.201020DBPSU – October, 2020
- 11.2.0.4.200714DBPSU – July, 2020
- 11.2.0.4.200414DBPSU – April, 2020
- 11.2.0.4.200114DBPSU – January, 2020
- 11.2.0.4.191015DBPSU – October, 2019
- 11.2.0.4.190716DBPSU – July, 2019

# 11.2.0.4.210420DBPSU on MOS



## Patch 32328626: DATABASE PATCH SET UPDATE 11.2.0.4.210420

Last Updated 20-Apr-2021 08:58 (Tuesday)

Product Oracle Database - Enterprise Edition  
([More...](#))

Release Oracle 11.2.0.4.0

Platform HP OpenVMS Itanium

Size 203.2 MB

Download Access Software

Classification General

Patch Tag

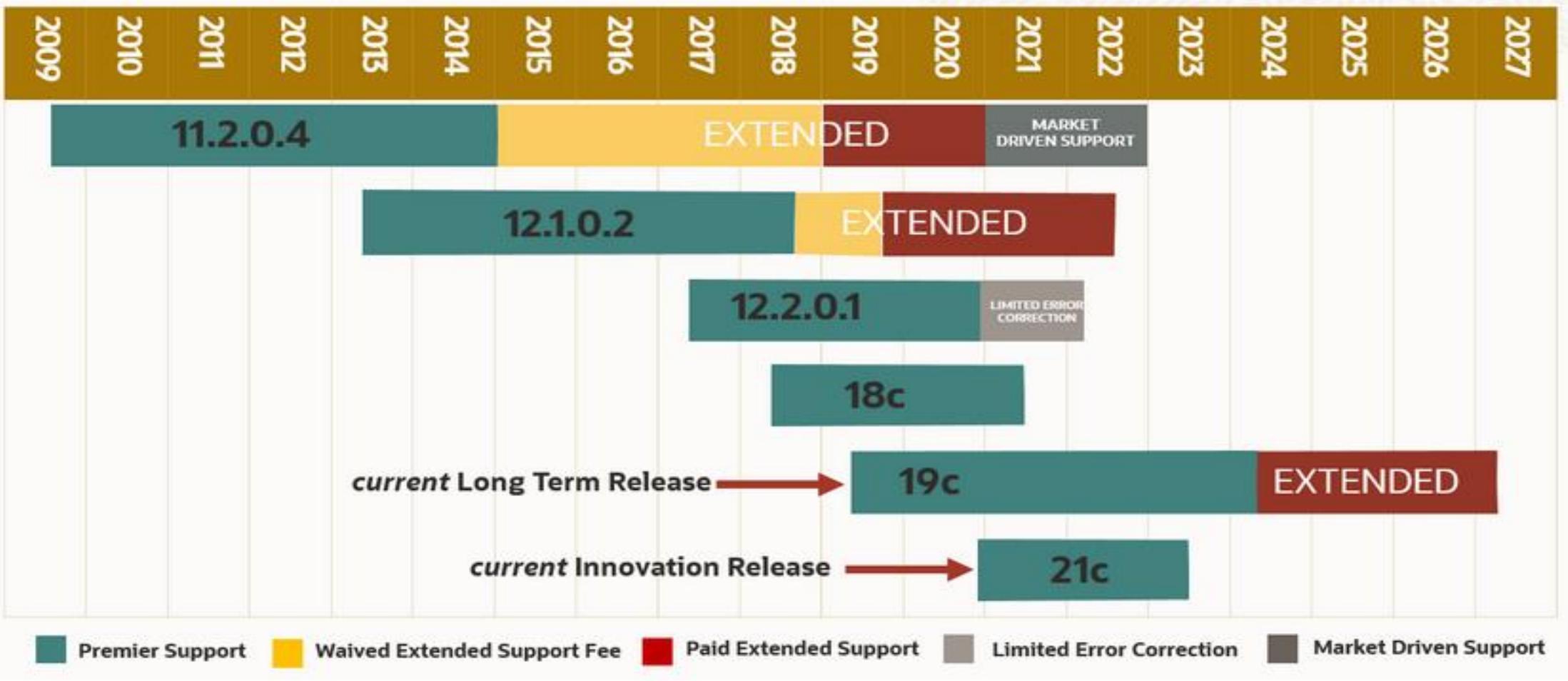
### Bugs Resolved by This Patch

- 10136473 CELLSRV FAILS DUE TO ORA-7445 [KAF4F0RST9IR2SRP1]
- 11733603 ORA-54 WITH SELECT STATEMENT USING NOWAIT CLAUSE WITH NO CONCURRENT ACTIVE TX
- 11786053 SR11.2.0.3ASM - TRC - KFMDXGRPREGMON
- 11883252 REDO TRANSPORT STREAMING NOT SUPPORTED WITH ALL MIXED VERSION CONFIGURATIONS
- 12364061 QUERY FAILS INTERMITTEND WITH ORA-30054
- 12611721 ARCHIVELOG DELETION POLICY BACKED UP N TIMES TO 'SBT\_TAPE' IGNORED
- 12747740 NODE JOIN RECONFIGURATION (PCMREPLAY) DOES NOT SCALE WITH MORE LMS'S
- 12816846 INTERNAL ERROR WHILE UPDATING COLUMN OF UPDATABLE JOIN VIEW ON EV AND TABLE/VIEW
- 12905058 REBOOT 2 CELL NODES, CHECKFILE FOUND CORRUPTION BLOCK IN 3 UNDO DATAFILES
- 12982566 ORA-06550: DBMS\_DRS PACKAGE DOES NOT EXIST ON NEW STANDBY DB AFTER SWITCHOVER

[Open Readme to View all Bugs](#)

### View Related Knowledge to this Patch

# Currently Published Oracle Database Support Dates





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

Client Version	Server Version									
	21c	19c	18c	12.2.0	12.1.0	11.2.0	11.1.0	10.2.0	10.1.0	9.2.0
21c	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No
19c	Yes	Yes	Yes	Yes	Yes	Yes <sup>#9</sup>	No	No	No <sup>#3</sup>	No <sup>#3</sup>
18c	Yes	Yes	Yes	Yes	Yes	Yes <sup>#9</sup>	No	No	No <sup>#3</sup>	No <sup>#3</sup>
12.2.0	Yes	Yes	Yes	Yes	Yes	Yes <sup>#9</sup>	No	No	No <sup>#3</sup>	No <sup>#3</sup>
12.1.0	Yes	Yes	Yes	Yes	Yes	Yes	Was	Was <sup>#7</sup>	No <sup>#3</sup>	No <sup>#3</sup>
11.2.0	No	Yes <sup>#9</sup>	Yes <sup>#9</sup>	Yes <sup>#9</sup>	Yes	Yes	Was	Was <sup>#7</sup>	No	Was <sup>#5</sup>
11.1.0	No	No	No	No	Was	Was	Was	Was <sup>#7</sup>	Was <sup>#6</sup>	Was <sup>#5</sup>
10.2.0	No	No <sup>#10</sup>	No <sup>#10</sup>	No <sup>#10</sup>	Was <sup>#7</sup>	Was <sup>#7</sup>	Was <sup>#7</sup>	Was	Was	Was <sup>#5</sup>
10.1.0 <sup>#4</sup>	No	No	No	No	No	Was <sup>#6</sup>	Was <sup>#6</sup>	Was	Was	Was
9.2.0	No	No	No	No	No <sup>#8</sup>	Was <sup>#5</sup>	Was <sup>#5</sup>	Was <sup>#5</sup>	Was	Was



# 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).

# 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

# 11g and 10g Certifications on VSI OpenVMS Versions

- Itanium (i6)
  - 8.4-2L3 (Testing Underway)
  - 8.4-2L1
- Itanium (i4 and i2)
  - 8.4-2L3 (Testing Underway)
  - 8.4-2L1
  - 8.4-2
  - 8.4-1H1

# 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 |            |               |

# 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 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              |
| 7.4     | Aug 2020 | Sep 2023             | Not Available         | Indefinite              |

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

# Rdb and CODASYL DBMS 7.3 Extended Support

**14. Oracle Rdb and Oracle CODASYL Database 7.3.3:** The Extended Support fee will be waived for the period September 2020 - August 2021. During this period, you will receive Extended Support as described in the Oracle Technical Support Levels section below.

See: Oracle Software Technical Support Policies at <http://www.oracle.com/us/support/library/057419.pdf>

# Oracle Rdb Certifications

|       |                    |                                          |
|-------|--------------------|------------------------------------------|
| RDB   | SQL/Services       | CODASYL DBMS                             |
| JDBC  | ODBC               | CDD/R                                    |
| Trace | Replication Option | > Oracle Rdb Extension for SQL Developer |

## Oracle Rdb

| Version | Architecture | Release |             | OpenVMS Version |         | Processor Minimum | Status     |
|---------|--------------|---------|-------------|-----------------|---------|-------------------|------------|
|         |              | Number  | Date        | Minimum         | Maximum |                   |            |
| 7.4     | Itanium      | 7.4.1.1 | 21-Apr-2021 | 8.4             | 8.4-x   | All               | Shipping   |
|         |              | 7.4.1.0 | 10-Aug-2020 | 8.4             | 8.4-x   | All               | Superseded |
|         | Alpha        | 7.4.1.1 | 21-Apr-2021 | 8.4             | 8.4-x   | EV56              | Shipping   |
|         |              | 7.4.1.0 | 10-Aug-2020 | 8.4             | 8.4-x   | EV56              | Superseded |

Source: <https://www.oracle.com/database/technologies/related/rdb-pmatrix.html#rdb>

# Oracle Rdb Certifications (continued)

|     |         |           |             |     |       |      |            |
|-----|---------|-----------|-------------|-----|-------|------|------------|
| 7.3 | Itanium | 7.3.3.2.0 | 25-Nov-2019 | 8.4 | 8.4-x | All  | Shipping   |
|     |         | 7.3.3.1.0 | 21-Mar-2019 | 8.4 | 8.4-x | All  | Superseded |
|     |         | 7.3.3.0.0 | 29-May-2018 | 8.4 | 8.4-x | All  | Superseded |
|     |         | 7.3.2.1.0 | 16-Mar-2017 | 8.4 | 8.4-x | All  | Superseded |
|     |         | 7.3.2.0.0 | 15-Mar-2016 | 8.4 | 8.4-x | All  | Superseded |
|     |         | 7.3.1.3.0 | 10-Sep-2015 | 8.3 | 8.4-x | All  | Superseded |
|     |         | 7.3.1.2.0 | 8-Oct-2014  | 8.3 | 8.4-x | All  | Superseded |
|     |         | 7.3.1.1.0 | 24-Feb-2014 | 8.3 | 8.4-x | All  | Superseded |
|     |         | 7.3.1.0.0 | 23-Sep-2013 | 8.3 | 8.4-x | All  | Superseded |
|     |         | 7.3.0.0.0 | 10-Mar-2011 | 8.3 | 8.4-x | All  | Superseded |
|     | Alpha   | 7.3.3.2.0 | 25-Nov-2019 | 8.4 | 8.4-x | EV56 | Shipping   |
|     |         | 7.3.3.1.0 | 21-Mar-2019 | 8.4 | 8.4-x | EV56 | Superseded |
|     |         | 7.3.3.0.0 | 29-May-2018 | 8.4 | 8.4-x | EV56 | Superseded |
|     |         | 7.3.2.1.0 | 16-Mar-2017 | 8.4 | 8.4-x | EV56 | Superseded |
|     |         | 7.3.2.0.0 | 15-Mar-2016 | 8.4 | 8.4-x | EV56 | Superseded |
|     |         | 7.3.1.3.1 | 5-Oct-2015  | 8.3 | 8.4-x | EV56 | Superseded |
|     |         | 7.3.1.2.1 | 8-Oct-2014  | 8.3 | 8.4-x | EV56 | Superseded |
|     |         | 7.3.1.1.1 | 24-Feb-2014 | 8.3 | 8.4-x | EV56 | Superseded |
|     |         | 7.3.1.0.1 | 23-Sep-2013 | 8.3 | 8.4-x | EV56 | Superseded |
|     |         | 7.3.0.0.1 | 10-Mar-2011 | 8.3 | 8.4-x | EV56 | Superseded |

Source: <https://www.oracle.com/database/technologies/related/rdb-pmatrix.html#rdb>

# Oracle Rdb Certifications (continued.)

## Oracle Rdb V7.2

| Release | Release Date | Version  | Alpha |       |                                         | Itanium               |                         |           | <a href="#">Update</a> |
|---------|--------------|----------|-------|-------|-----------------------------------------|-----------------------|-------------------------|-----------|------------------------|
|         |              |          | Min   | Max   | Kits <a href="#">1</a>                  | 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 <a href="#">1</a>      | 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) <a href="#">2</a> |                        |

**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

- **Rdb 7.4.1.1, April, 2021**
- **Rdb 7.3.3.2 Update 1, December, 2020**
- **Oracle SQL/Services and OCI Services for Oracle Rdb 7.4.0.0 Update 2, December, 2020**
- **Oracle SQL/Services and OCI Services for Oracle Rdb 7.3.3.4 Update 2, December, 2020**
- **Rdb 7.4.1.0, August, 2020**
- **Oracle SQL/Services and OCI Services for Oracle Rdb 7.4.0.0 Update 1, August, 2020**
- **Oracle SQL/Services and OCI Services for Oracle Rdb 7.3.3.4 Update 1, August, 2020**
- Oracle Rdb Connectivity Manager 7.3.4.1, June, 2020
- Oracle Rdb Developer Tools for Visual Studio, 7.4, May, 2020
- Rdb 7.3.3.2 , November, 2019
- RDB 7.3.3.1, Update 1, May, 2019
- Rdb 7.3.3.0, Update 3, May, 2019
- Oracle ODBC Driver for Rdb V 3.3.2.7, April, 2019
- SQL/Services 7.4.0.0, April, 2019
- JDBC for Oracle Rdb 7.3.5.2, April, 2019
- Rdb 7.3.2.1, March, 2019
- CDD/Repository 7.3.0, March, 2019



## 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

# Oracle Rdb 7.3 and 7.4 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
- V7.3.2 – March, 2016
  - Update 1, May, 2016
  - Update 2, September, 2016
- V7.3.2 – March, 2016 (cont.)
  - 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
  - Update 3, May, 2019

# Oracle Rdb 7.3 and 7.4 Releases (continued)

- V7.3.3.1 – March, 2019
  - Update 1, May, 2019
- V7.3.3.2 – November, 2019
  - Update 1 – December, 2020
- V7.4.1.0 – August, 2020
- V7.4.1.1 – April, 2021

# Rdb 7.3.3.2 Update 1, December, 2020

- Available on My Oracle Support with the following patch set numbers:
  - I64: 32266579
  - Alpha: 32266569
- Bugs Fixed:
  - Unexpected RMU/UNLOAD/AFTER BUGCHECK at AIJEXT\$QSORT\_RELEASE\_REC
    - It was possible for the RMU/UNLOAD/AFTER command to bugcheck when processing rows for a table with long record sizes (greater than 32767 bytes)
  - Clarification of RMU Unload After\_Image Header
    - LogMiner header fields now correctly described as unsigned 16 bit integers
  - Unexpected Error %SQL-F-FLDNOTCRS For Declaring a LIST Cursor
  - Unexpected NULL Returned from MOD and SQRT Functions
  - Unexpected BUGCHECK When Query Contains Multiple COUNT(\*) Aggregate Functions

# Rdb 7.4.1.1, April, 2021

- Available on My Oracle Support with the following patch set numbers:
  - I64: 32789595
  - Alpha: 32789577
- New Features
  - Optional Builtin Function RDB\$\$IS\_ROW\_FRAGMENTED
  - WITH READ ONLY clause for CREATE and ALTER VIEW
  - Enhanced conversion of date/time string literals
  - Support for OVERRIDING clause in INSERT and REPLACE statements
  - RMU RECOVER /PROGRESS\_REPORT Qualifier and Ctrl-T Display
  - Additional options for the RMU SET DATABASE command
  - SUMMARY\_ONLY qualifier to RMU Dump Audit

# Rdb 7.4.1.1

- New Features (continued)
  - New RMU VERIFY /MINIMIZE\_CONFLICTS feature
  - New OPTION=GENERATED added to RMU Extract command
  - Changed behavior for the NOEDIT\_FILENAME qualifier in RMU Backup After\_Journal command

# Rdb 7.4.1.1 – Bugs Fixed

- Software Errors Fixed That Apply to All Interfaces
  - Journal Backed Up While RMU/UNLOAD/AFTER/CONTINUOUS Extracting Journal
    - Rare event but could result in the extraction process not extracting all of the contents of the journal
  - Bugchecks at SEQ\$GET\_SEQUENCE + 000001C0 After Incremental Restore
    - Only occurred when additional journals were added to the database after a full backup was performed and before an incremental backup was executed
  - The SET FLAGS option NOCOUNT\_SCAN erroneously disabled Min and Max optimized index lookups
    - Oracle Support may request that you use the system flag "NOCOUNT\_SCAN" to disable COUNT SCAN optimizations as a workaround for a problem you may be experiencing.
- SQL Errors Fixed
  - Unexpected NULL returned from MOD and SQRT functions
  - Unexpected RDMS-E-UNQCONFVAL when using ALTER CONSTRAINT statement
    - Happened after attempts to change a FOREIGN KEY constraint to NOT DEFERRABLE

# Rdb 7.4.1.1 – Bugs Fixed (continued)

- SQL Errors Fixed

- Unexpected bugcheck when using more than one COUNT(\*) in query

- This occurred within the multi-aggregate feature introduced in Oracle Rdb V7.3.2.1. The optimizer is trying to match MAX(expr), MIN(expr), COUNT(expr), and COUNT(\*) to perform optimized lookups.

- Incorrect handling of the DEFAULT clause for AUTOMATIC UPDATE AS columns

- Incorrect value was returned for the DEFAULT keyword during the INSERT or REPLACE statements.

- RMU Errors Fixed

- *Unexpected SYSTEM-F-ACCVIO when using RMU Dump Audit for DACCESS*

- RMU SET AUDIT and RMU SHOW AUDIT now work on remote databases

- RMU/BACKUP/AFTER/SPACE\_CHECK now supports disk bound volume sets

- In prior versions, the qualifier only checked the free space available on the first volume of a bound volume disk set.



# Rdb 7.4.1.1 New Features (partial list):

- RDB\$\$IS\_ROW\_FRAGMENTED
  - Oracle Rdb now supports an optional builtin function that can determine if a row is fragmented

```
SQL> declare function RDB$$IS_ROW_FRAGMENTED
```

```
cont> (in :dbk char(8) character set unspecified)
```

```
cont> returns integer;
```

```
SQL>
```

```
SQL> select dbkey, RDB$$IS_ROW_FRAGMENTED (dbkey) from work_status;
```

| DBKEY    |   |
|----------|---|
| 99:10:12 | 0 |
| 99:10:13 | 0 |
| 99:10:14 | 0 |

```
3 rows selected
```

## Rdb 7.4.1.1 New Features: (partial list continued)

- **WITH READ ONLY** clause for CREATE and ALTER VIEW
  - With this release the database administrator can force a view to be READ ONLY by applying the WITH READ ONLY clause, even if the factors that normally make a view read-only are not true.
- **OVERRIDING** clause in INSERT and REPLACE statements
  - Affect the handling of inserts to any generated columns during INSERT or REPLACE statements
  - The OVERRIDING SYSTEM VALUE clause instructs Rdb that the generated columns will be updated with user supplied values. No generated values will be created.
  - Would be used if a table was being reloaded after maintenance and the database administrator wanted to retain the saved generated values.

## Rdb 7.4.1.1 New Features: (partial list continued)

- RMU RECOVER /PROGRESS\_REPORT Qualifier and Ctrl-T Display
  - The /PROGRESS\_REPORT=n qualifier, where n is the time interval in seconds, displays the performance and progress of the database RMU RECOVER operation at timed intervals to SYS\$OUTPUT
  - The same display can also be output whenever Ctrl-T is typed during the RMU RECOVER operation.
- New RMU VERIFY /MINIMIZE\_CONFLICTS feature
  - The /MINIMIZE\_CONFLICTS qualifier attempts to reduce database page lock conflicts at timed intervals during the verify operation.

# Oracle Rdb 7.4.1.1 Available for Download

Close

## Patch 32789595: ORACLE RDB RELEASE 7.4.1.1.0 (IMV)

Last Updated 21-Apr-2021 14:49 (Wednesday)

Product Oracle Rdb Server on OpenVMS

Release Oracle Rdb Server 7.4.1.1.0

Platform HP OpenVMS Itanium

Size 91.0 MB

Download Access Software

Classification General

Patch Tag

Release Oracle Rdb Server 7.4.1.1.0

Platform HP OpenVMS Itanium

Language American English

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### Bugs Resolved by This Patch

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

[View Related Knowledge to this Patch](#)

# Rdb 7.4.1, August, 2020

- Available on My Oracle Support with the following patch set numbers:
  - I64: 31721688
  - Alpha: 31721697
- New Features
  - Database Vault
  - System Privileges Feature
  - Support for VSI TCP/IP for OpenVMS Version 10.6 or Later
  - RMU RECLAIM /FREE\_PAGES Qualifier Frees Unused Data Page Clumps
  - Named Partition Support for RESERVING Clause
  - Enhancements to RMU Unload After\_Image (LogMiner) Interface
  - PCSI Support for Rdb Kit Installation and Deinstallation
  - RMU Backup No Longer Supports HUFFMAN or LZSS Compression Use ZLIB Instead

# Rdb 7.4.1 New Features (continued)

- Some Aggregate Functions Now Inherit Source Column EDIT STRING
- Comma Statement Separator in Trigger Body No Longer Supported
- Enhancements to the SQL language interface including CREATE OR REPLACE for DEFAULT AUDIT, LIKE table support for CREATE TABLE, and NULLS FIRST and NULLS LAST options in ORDER BY clause.
- Hash Join (Beta)
  - New SET FLAGS Keyword for Hash Join Feature - HASHING
  - New JOIN BY HASH Clause in CREATE OUTLINE Statement
- ALTER DATABASE ... LOAD ACL IDENTIFIERS Clause
- ALTER TABLE Actions for READ ONLY Table
- XML Option to FORMAT Qualifier
- TRIM Option
- SYMBOLS Qualifier

# Oracle Rdb 7.4.1 – Bugs Fixed

- RDMS-F-BADPAGNUM Exception After Snapshot File Truncated
- SQL/Services V7.4 IVP Fails With RMU-E-NOSQCLIENT
- Long Running Delete Does Not Advance After-Image Journal Checkpoint
- Long Running Query Blocks Other Queries
- SQL Errors Fixed
  - Unexpected Bugcheck When Using DROP STORAGE AREA CASCADE
  - Unexpected Error %SQL-F-FLDNOTCRS For Declaring a LIST Cursor
- RMU Errors Fixed
  - Clarification of RMU Unload After\_Image Header
  - Unexpected RMU/UNLOAD/AFTER Bugcheck at AIJEXT\$QSORT\_RELEASE\_REC

## Rdb 7.4.1 New Features: 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



## Rdb 7.4.1 New Features: System Privileges

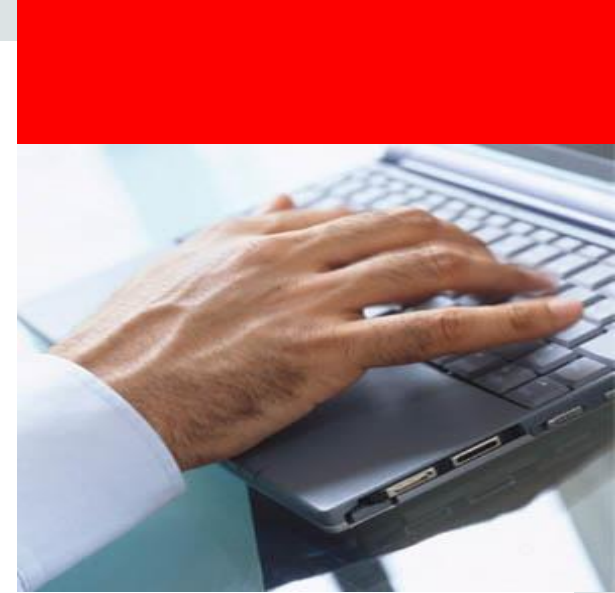
- Finer granularity of privileges now possible on database objects such as Tables, Indexes, Storage Maps, Views, etc.
- Before this feature, privileges applied to most associated objects
  - CREATE implies the permission to CREATE ANY object (except PROFILE, ROLE, and USER)
  - ALTER implies the permission to ALTER any object(except PROFILE, ROLE, and USER)
  - DROP implies the permission to DROP ANY object (except PROFILE, ROLE, and USER),
  - SECURITY implies the permission to CREATE, ALTER, and DROP ANY PROFILE, ROLE or USER
- GRANT and REVOKE now supports System Privileges. Such as as CREATE ANY PROCEDURE, ALTER ANY SEQUENCE, etc.

## Rdb 7.4.1 New Features: VSI TCP/IP

- Support added for VSI TCP/IP for OpenVMS Version 10.6 or Later
- But ...
  - VSI has since announced the de-support of VSI TCP/IP
  - VSI now working on enhancing the existing TCP/IP services instead
- Oracle will follow VSI's new TCP/IP direction

# 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 7.4.0.0 and 7.3.2.4 Update 2, December, 2020

- Download from My Oracle Support
  - Patch 32215099 for 7.4.0.0 Itanium
  - Patch 32215112 for 7.3.2.4 Itanium
  - Patch 32215130 for 7.3.2.4 Alpha
- Features:
  - Support Added for Oracle Rdb 7.4
    - The OCI Services dictionary prepare and upgrade utility, RDB\$NATCONN\_DIC74, has been updated to support Oracle Rdb 7.4
- Bug Fixes:
  - Oracle JDBC 19C when used with Oracle Rdb OCI Services didn't return data if there were fewer than 10 rows being returned in response to a SELECT.
    - OCI Services now returns the correct values and JDBC 19C recognizes the rows that are returned.

# Oracle SQL/Services and OCI Services 7.4.0.0 and 7.3.2.4 Update 1, August, 2020

- Download from My Oracle Support
  - Patch 31721586 for 7.4.0.0 Itanium
  - Patch 31721634 for 7.3.2.4 Itanium
  - Patch 31721651 for 7.3.2.4 Alpha
- Features:
  - Support Added for Oracle Rdb 7.4
    - The OCI Services dictionary prepare and upgrade utility, RDB\$NATCONN\_DIC74, has been updated to support Oracle Rdb 7.4

# Oracle ODBC Driver for Rdb 3.3.2.7, April, 2019

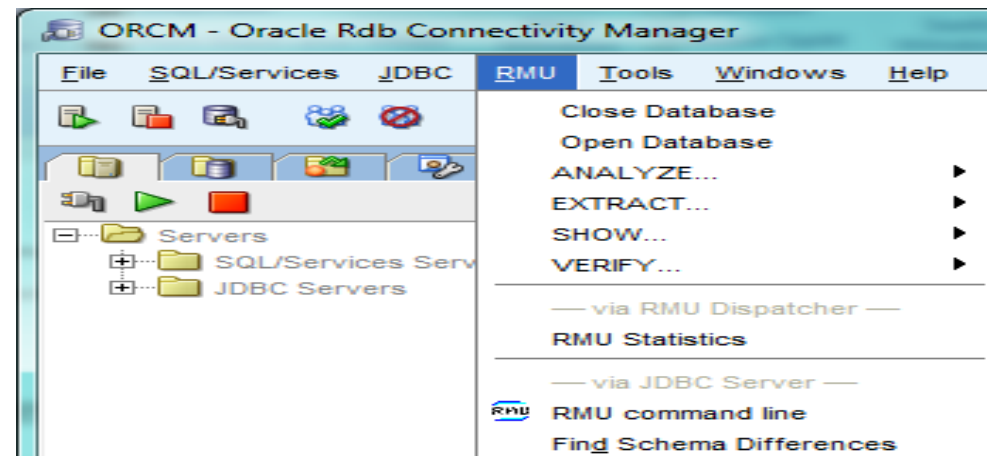
- Download from My Oracle Support
  - Patch 29630527 (64 bit)
  - Patch 29630509 (32 bit)
- Fix for an unexpected error with the Microsoft OLEdb driver
- Fix for an invalid handle error returned from SQLSetDescField

# Oracle JDBC for Rdb 7.3.5.2, April, 2019

- Download from My Oracle Support
  - Patch 29623931 for Itanium
  - Patch 29623919 for Alpha
- Features
  - A new connection option `suppressAddingDbkey`
  - The various log names used by the JDBC server have been expanded to include the node name where the respective JDBC server was started.
  - The server log file is now unlocked by default, allowing it to be read while the server is running. Prior to this release the file was always locked. You can choose to revert to 'locked' as the default if desired.
- Bug Fixes (partial list):
  - ACCVIO during MP Server shutdown
  - Manager Server fails to Respond to Poll Request

# ORCM 7.3.4.1, June, 2020

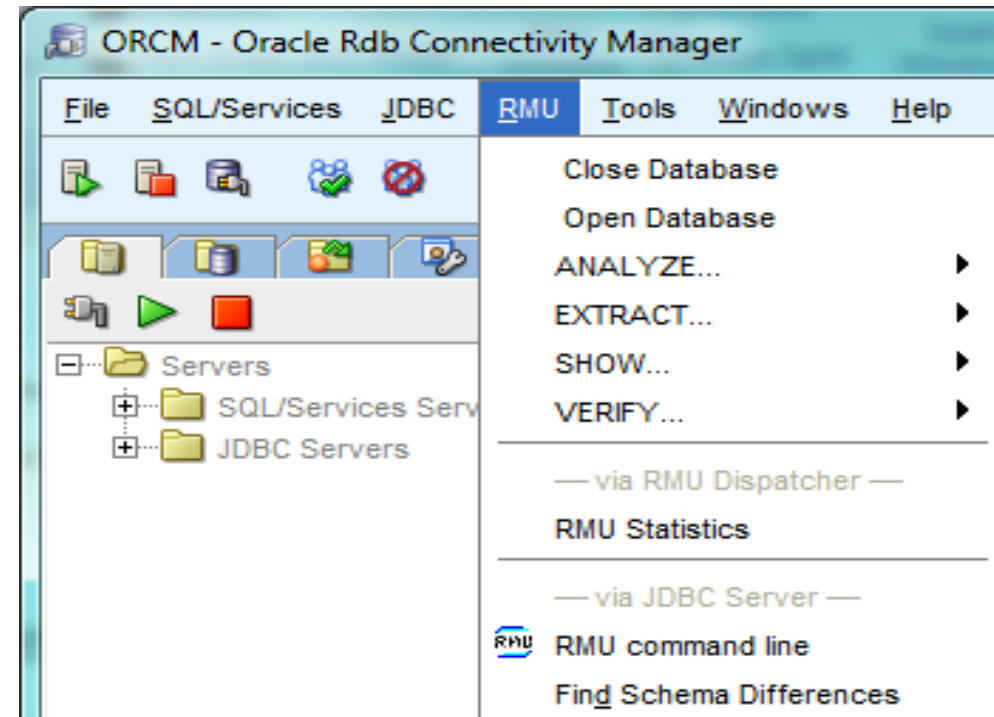
- Download from My Oracle Support
  - Patch 31542398 for Windows
  - Patch 31542407 for Generic Kit
- Problems Fixed (Partial List)
  - NullPointerException when Cancelling Remote Tool action
  - External Tools with Missing Parameter Format clause
  - Rename JDBC Server problem
  - Parameters Not Displayed when Editing External Tool
  - Event Triggers Deviation and Threshold value Problem
  - Create Oracle Trace Threshold problem
  - Adding a Port to a SQL/Services Dispatcher
  - Incorrect configuration file chosen for update of tool definition





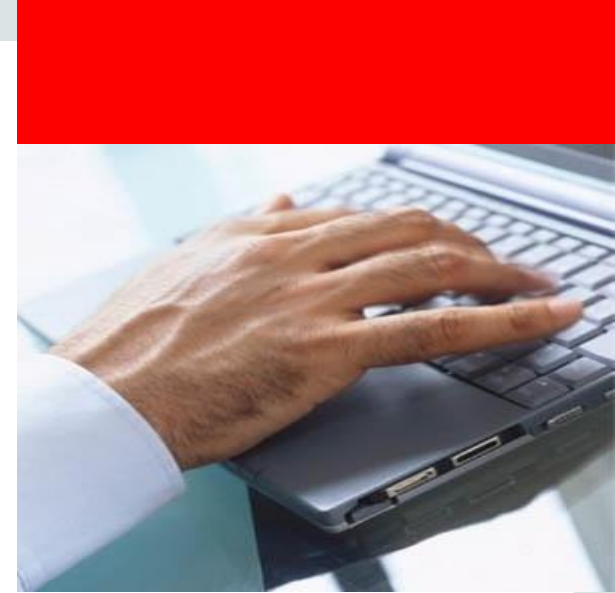
# ORCM 7.3.4.0, February, 2019

- Download from My Oracle Support
  - Patch 29323748 for Windows
  - Patch 29323755 for Generic Kit
- Features
  - Oracle Trace Player – New!
    - Replay trace data
  - New RMU Menu category
  - RMU Statistics
  - Find Schema Differences
  - External Tool Enhancements
- Bug Fixes:
  - See release notes



# Oracle Rdb Developer Tools

- 7.4, May, 2020
  - Available for download from My Oracle Support
    - Patch 31303758
  - New Features:
    - Windows 64 Bit Support
  - Bugs Fixed
    - See Release Notes



# Other Oracle Rdb Family Products: Latest Versions

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



# Oracle CDD/Repository 7.3.0.0, March, 2019

- Available on My Oracle Support
  - Patch 29442602 for Itanium
  - Patch 29442614 for Alpha.
- Features:
  - Can now integrate into CDD a database that has been prepared for OCI Services
    - added support for Join Clauses in a relational selection expression
    - added support for Value List Expressions
  - Coalesce
    - returns the first non-NULL value from a series of value expressions; otherwise, returns NULL
- Problems Fixed:
  - See Release Notes

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

- Download from My Oracle Support
  - Patch 28135854 (under Generic Platform)
- Features
  - Allows you to run with SQL Developer 17.4.0.355 and 4.1.3
- Requirements:
  - Oracle JDBC for Rdb release 7.3.4.0.4

# What's Under Development

# Next Rdb Versions

- CODASYL DBMS 7.3.3.0
- X86 Port

# CODASYL DBMS 7.3.3.0

- Bugs Fixed (partial list):
  - Undocumented Hot Standby Logical Names
  - Excessive Alignment Faults in DBO/VERIFY and DBO/ANALYZE
  - Possible lost database updates when using DBO Backup Incremental
  - Unexpected MONITOR BUGCHEK dump
  - Memory leak with DBQ\$INTERPRET
  - Bugcheck at DIOFETCH\$FETCH\_SNAP\_SEG
  - Long Running Delete Does Not Advance After-Image Journal Checkpoint
  - Long Running Query Blocks Other Queries
  - Unexpected Bugchecks After Incremental Restore
  - Lack of LRS Reply Status on HOT STANDBY Shutdown
  - Full Backup No Longer Required After Altering the Snapshot Area Page Allocation



# Oracle Rdb x86 Port

- 7.4 Environment Established
- 7.4 x86 changes needed for Test System underway
- Running 9.0 on multiple systems
- Cross Compilations Completed or Underway
  - COSI
  - KODA \* stubbed out where necessary
  - SQL
- Next Cross Complilations
  - RMU, SQLMOD, SQLPRE with goal of getting the Monitor running
- Have been working on SORT in preparation for the port

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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