

SAP on Oracle Development Update

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Key Words:

SAP, Oracle, 11.2, 12.1,

Introduction

This presentation contains information that is relevant in the context of SAP installations running on an Oracle database.

Based on several examples it will be discussed which Oracle versions and features are supported in an SAP environment and what benefit they have. In addition information is provided about new developments in the SAP/Oracle environment.

Oracle Database 12c Release 1 (12.1)

Certified for Business Suite based on SAP NetWeaver starting March 31, 2015

- Including:
 - Oracle Database 12c
 - Oracle Grid Infrastructure 12c¹⁾
 - Oracle Real Application Clusters (RAC) 12c

Requirements

- Minimum Oracle version is 12.1.0.2 with initial SAP Bundle Patch (12.1.0.2.2)
- SAP Kernel 7.21_EXT or higher, 7.4 or higher

For details see

- SAP Notes 2133079 and 1914631

Patch Set 12.1.0.2

1st and Final Patch Set for Oracle 12.1

Released March 31, 2015

- All OS platforms available from start

August 2016 SBP is most recent and contains PSU 160719 for 12.1.0.2 (12.1.0.2.160719)¹⁾

See SAP Note 1915313 for support dates

The following SAP products are certified with Oracle Database 12.1:¹⁾

See the SAP Product Availability Matrix (PAM) for product versions released with Oracle 12c

SAP NetWeaver 7.0, 7.1, 7.3, 7.4, 7.5

SAP BW 7.0/7.0X, 7.1X, 7.20, 7.3X, 7.4, 7.5

SAP ERP 6.0

SAP CRM 7.0

SAP SCM 7.0

SAP SRM 7.0

Banking Services from SAP 6.0, 7.0, 8.0, 9.0

SAP Solution Manager 7.1, 7.2

SAP NW CE 7.1, 7.20

SAP NW PI 7.1

SAP LVM 2.1 and higher

SAP MDM 7.1 SP15

Oracle Multitenant now in Early Customer Shipment Status

The Oracle Multitenant option is now in early customer shipment status.

If you are interested in using this feature for SAP NetWeaver-based systems and want more information, please contact:

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DB Platforms Oracle & Informix

OS Platform Solaris

SAP SE

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Please include your customer number in the mail.

Oracle Database In-Memory

Certified for SAP since June 30, 2015

Requirements

- Oracle Database 12c Release 12.1.0.2¹⁾ or higher
- Including RAC 12c and Engineered Systems
 - SAP NetWeaver 7.X with kernel 7.21_EXT or higher
- SAP DDIC < 7.40 SP12 has limited IM support

For details see

- SAP Note 2178980
- Oracle In-Memory white paper on SCN

SAP Products Support

- Business Suite based on SAP NetWeaver
- ERP, CRM, SRM, SCM, BW, PI, ...
- Industry solutions
 - Check SAP Product Availability Matrix (PAM) for full list

Classic InfoCubes follow SAP proprietary, extended star schema

Optimized for row-based, classic RDBMS

- 2 Fact Tables
- E Fact Table: Read Optimized Partitioning
- F Fact Table: Write/Delete Optimized Partitioning
 - Dimension Tables
- as grouping sets of characteristics
 - Shared Master Data Tables

Flat InfoCubes are simplification of classic schema

Optimized for columnar and hybrid RDBMS

- 1 Fact Table
- Write/Delete no longer harms Read performance
 - No separation into E and F fact tables
- Two-dimensionally partitioned using sub-partitioning
 - No Dimension Tables¹⁾
- Dimensions become pure meta data
- Obsolete need to look-up/create DIMIDs
- strongly boosts update performance
 - Much higher query and load performance
- Due to In-Memory technology
- Less joins; no indices on fact table

Available from SAP NW Business Intelligence 7.40

Relies on Oracle Database In-Memory technology

- Released on 30 June 2016
- Supported from:
 - SAP NW BI 7.40 SP15
 - SAP NW BI 7.50 SP04
 - Oracle Database 12c Release 1 (12.1.0.2)¹⁾, and higher
 - Oracle Database In-Memory mandatory

For details see

- SAP Note 2335159

ABAP Core Data Services (CDS)

Dynamic database-side objects, comprising

- Views
- Views with parameters

– eq. database table functions

- Scalar functions

and implementing simple to most complex business logic:

“Bring the algorithm to the data”

Available from NetWeaver 7.40 SP8

— extended in NetWeaver 7.50 | 7.51

Examples:

- Functions:

– concat, replace, substring, lpad

– unit_conversion

– currency_conversion

- Global Temporary Tables¹⁾
- Session Variables¹⁾
- Time¹⁾ and Timezone²⁾ Functions
- ...

See the ABAP documentation for a full list of CDS functionality