

SAP on Oracle

Development Update

June 2014

Dr. Christian Graf
Development Manager

DB Platforms Oracle & Informix
OS Platform Solaris

SAP AG

The SAP logo, consisting of the letters 'SAP' in white on a blue rectangular background.The logo for DOAG SIG Oracle & SAP, with 'DOAG' in large red letters and 'SIG Oracle & SAP' in smaller black letters below it.The ORACLE logo in red, all-caps, sans-serif font.



Disclaimer

The information in this presentation is confidential and proprietary to SAP and may not be disclosed without the permission of SAP. This presentation is not subject to your license agreement or any other service or subscription agreement with SAP. SAP has no obligation to pursue any course of business outlined in this document or any related presentation, or to develop or release any functionality mentioned therein. This document, or any related presentation and SAP's strategy and possible future developments, products and/or platforms directions and functionality are all subject to change and may be changed by SAP at any time for any reason without notice. The information on this document is not a commitment, promise or legal obligation to deliver any material, code or functionality. This document is provided without a warranty of any kind, either express or implied, including but not limited to, the implied warranties of merchantability, fitness for a particular purpose, or non-infringement. This document is for informational purposes and may not be incorporated into a contract. SAP assumes no responsibility for errors or omissions in this document, and shall have no liability for damages of any kind including without limitation direct, special, indirect, or consequential damages that may result from the use of this document. This limitation shall not apply in cases of intent or gross negligence. All forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from expectations. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of their dates, and they should not be relied upon in making purchasing decisions.



Agenda

SAP on Oracle Database 11g

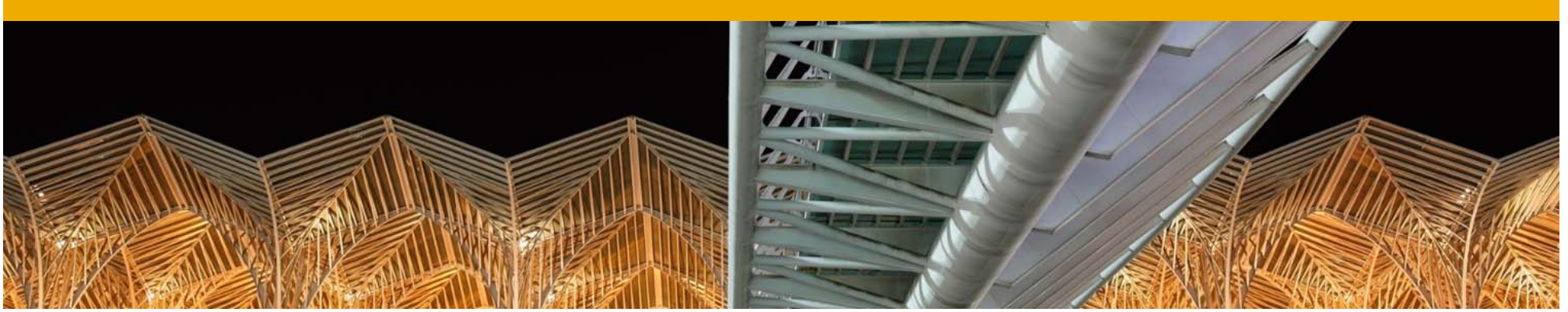
SAP on Oracle Database 12c

Engineered Systems Update

Virtualization Update

SAP Bundle Patches

Miscellaneous



SAP on Oracle Database 11g



SAP on Oracle Database 11g Supported Releases



Patch Set 11.2.0.2

1st Patch Set for Oracle 11.2
Released 10 November, 2010



- General Availability since mid January 2011
- Windows available since 10 May, 2011

November 2013 SBP was final
and contains PSU 12 for
11.2.0.2 (11.2.0.2.12)

Patch Set 11.2.0.3

2nd Patch Set for Oracle 11.2
Released 12 December, 2011



- HP-UX PA-RISC available since June 2012
- Windows available since 14 February, 2012

June 2014 SBP is most
recent and contains PSU 10
for 11.2.0.3 (11.2.0.3.10)

Patch Set 11.2.0.4

Final Patch Set for Oracle 11.2
Released 14 February, 2014



- General Availability since February 2014
- **NEW!** Windows Cluster available since May 2014

June 2014 SBP is most
recent and contains PSU 2
for 11.2.0.4 (11.2.0.4.2)

New SAP projects should start
on 11.2.0.4 or higher

Overview Compression Technologies in SAP Environments

Convert Tables to Compressed IOTs

- Improves query and DML performance and saves disk space
- Only convert the largest tables
- For details, see SAP Note [1856270](#)

Implement Index Compression

- Improves R/3 performance the most as all database access in R/3 environments is index-based, especially index range scans
- Up to 20% disk space reduction for complete database

Implement OLTP Table Compression

- No real query performance benefit in R/3 environments
- Provides very good disk space savings
- Only compress the largest tables

Implement SecureFiles Compression

- Very important for SAP applications like CRM or XI/PI that store large (uncompressed) amounts of data

SAP on Oracle Database 11g

Automatic Storage Management

ASM/ACFS

Requirements:

- Oracle 11.2.0.2, or higher
- Oracle Grid 11.2.0.2, or higher
- Kernel 640_EX2 or higher based SAP releases

Single Instance and RAC Support

- ACFS required for RAC installations with ASM¹⁾

For details see

- SAP Note [1550133](#)
- Oracle ASM white papers on SCN

1) not available on HP-UX

Installation & Administration

Full ASM Support provided in...

- BR*Tools 7.20 Patch [18](#)
 - see SAP Note [1627541](#)
- Software Provisioning Manager 1.0 SP1
 - for SAP product versions 7.0X and 7.3X
 - see SAP Note [1738053](#)

SAP NW Master Data Management

SAP MDM certified with ASM since June 2013

- Starting with MDM 7.1 SP10
- See SAP Note [1825328](#)



SAP on Oracle Database 12c Roadmap



SAP on Oracle Database 12c Roadmap¹⁾



Oracle Database 12c Release 1 (12.1)

NEW! 12.1.0.2 planned to be first release for SAP

- hereby breaking 'Terminal Release' custom valid to date
 - to ensure sufficient overlap with 11g
- No support of base release 12.1.0.1
- Starting from SAP NetWeaver 7.X based products
- Rollout planned for Q1/2015
 - 1st wave: Linux, Solaris, Windows,
 - 2nd wave: AIX, HP-UX
 - Base certification w/o major 12c features,
staged rollout for major features later in 2015+

1) All statements on this slide are forward-looking and depend on the outcome of the currently ongoing SAP/Oracle contract negotiations.

SAP on Oracle Database 12c Roadmap¹⁾



Oracle Database 12c Features

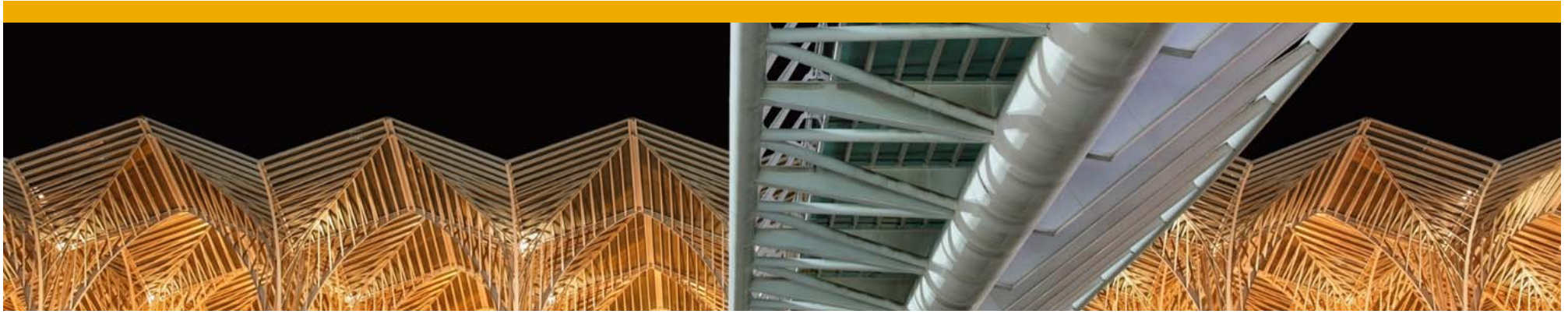
Rollout in staged approach during 2015+

Features under evaluation for potential SAP support:

- Information Lifecycle Management (ILM)/ADO²⁾
- Multitenant (aka. Pluggable Databases)³⁾
- In-Memory⁴⁾
- Hybrid Columnar Compression (HCC)⁵⁾ for Exadata
- RAC: HA-NFS support with ACFS
- RMAN: Cross platform backup and restore
- ...

1) All statements on this slide are forward-looking and depend on the outcome of the currently ongoing SAP/Oracle contract negotiations.

2) requires Advanced Compression Option 3) requires new Multitenant Option 4) requires new In-Memory Option 5) Automatic Data Optimization (ADO) prerequisite



Engineered Systems Update



Engineered Systems Update

Exadata | Exalogic & Co.

Oracle Exadata Database Machine X2 | X3 | X4

Support for X2-2, X2-8, X3-2, X3-8 and X4-2

- Exadata license required
- See SAP Note [1590515](#)
- Oracle Exadata white paper on SCN

Oracle Exalogic X2 | X3 | X4

Support for X2-2, X3-2 and X4-2

- Only in combination with Exadata
- See SAP Note [1617188](#)

Oracle SPARC SuperCluster

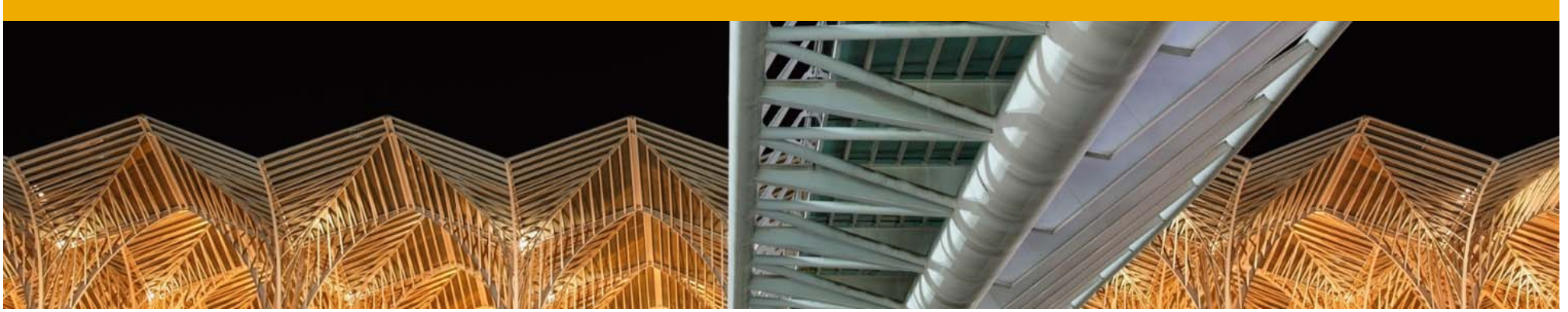
Supported for SAP since 2012

- See SAP Note [1693680](#)

Oracle Database Appliance (ODA)

Supported for SAP since 2012

- SAP Note [1760737](#)
- Oracle ODA white paper on SCN



Virtualization Update



Virtualization Update

Oracle VM

Certification

Supported for SAP as follows:

- OVM 3.2.1 or higher
- x86-64 platforms¹⁾
- See SAP Note [1808268](#)

Guest Operating Systems Support

- Oracle Linux 5 and 6
- Solaris 10 and 11
- Microsoft Windows currently not supported
- SUSE Linux Enterprise Server currently not supported
- No Red Hat Enterprise Linux support

1) not with ODA or OVCA

SAP Products Support

- All SAP products certified for supported guest OS
- Check PAM for OS availability for SAP product

Oracle Database Support

- Single Instance
 - 10.2.0.5, 11.1 (non-NW, e.g. BO), 11.2
- Real Application Clusters (RAC)
 - minimum 11.2.0.3
 - Oracle Linux guests only

Virtualization Update

Microsoft Hyper-V

Certification

Supported for SAP since June, 2013

- Windows Server 2012 Hyper-V
- Private and Public Cloud
- See SAP Note [1329848](#)

Guest Operating Systems Support includes

- Windows Server 2012, and R2
- Windows Server 2008 R2 Service Pack 1

SAP Products Support

- All SAP products certified for supported guest OS
- Check PAM for OS availability for SAP product

Oracle Products Support

- All Oracle products certified for Windows Server, including
 - Oracle Database 11.2
 - Oracle Instant Client 11.2



SAP Bundle Patches

New Structure

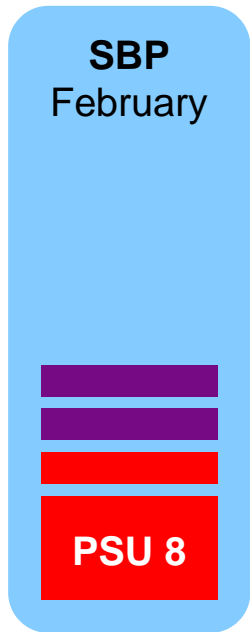


SAP Bundle Patches

New Structure

Previous SBP structure prone to patch pile-up

SAP overlay patches never fully incorporated in next Oracle PSU underlying the SBP



SAP Bundle Patches

New Structure


NEW! Starting June 2014, Oracle will provide new SBP Base Components:

SAP Database Bundle Patch

abbr. SAPDBBP

- SAP-specific composite Oracle bundle for Oracle Database
- Comprises Oracle PSU/SPU plus additional patches necessary for SAP

↳ Technical Basis of the following SBPs:


-  – RDBMS for Unix platforms
- Grid
- Database Appliance

SAP Exadata Database Bundle Patch

abbr. SAPEXADBBP

- SAP-specific composite Oracle bundle for Oracle Exadata and SuperCluster
- Comprises Oracle Exadata BP plus additional patches necessary for SAP

↳ Technical Basis of the following SBPs:

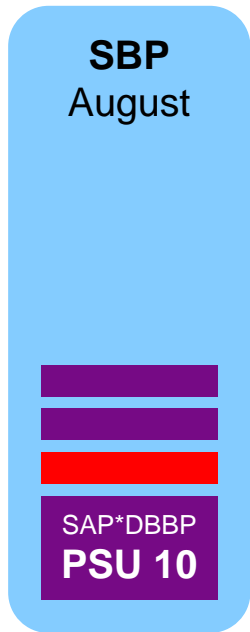
-  – Exadata
- SuperCluster

SAP Bundle Patches

New Structure

New SBP structure eliminates patch pile-up

SAP overlay patches fully incorporated in next SAP*DBBP underlying the SBP



SAP Bundle Patches

New Structure

One-time transition effort yields sustaining benefits:

Benefits

- 1 ▶ Better Patch Quality
 - Genuine Oracle PSU tests also get applied to SAP*DBBP bundles
- 2 ▶ Less On-Top Patches
 - More concise patch inventory
- 3 ▶ Less installation time for all subsequent SBPs

One-Time Challenges

- 1 ▶ May 2014 Patch Day needed to be skipped
 - Included April 2014 Oracle PSU
- 2 ▶ First-time installation more complex and time-consuming

SAP Bundle Patches

New Structure

Two options for first-time SBP installation:

Install in existing Oracle Home

for Space Efficiency

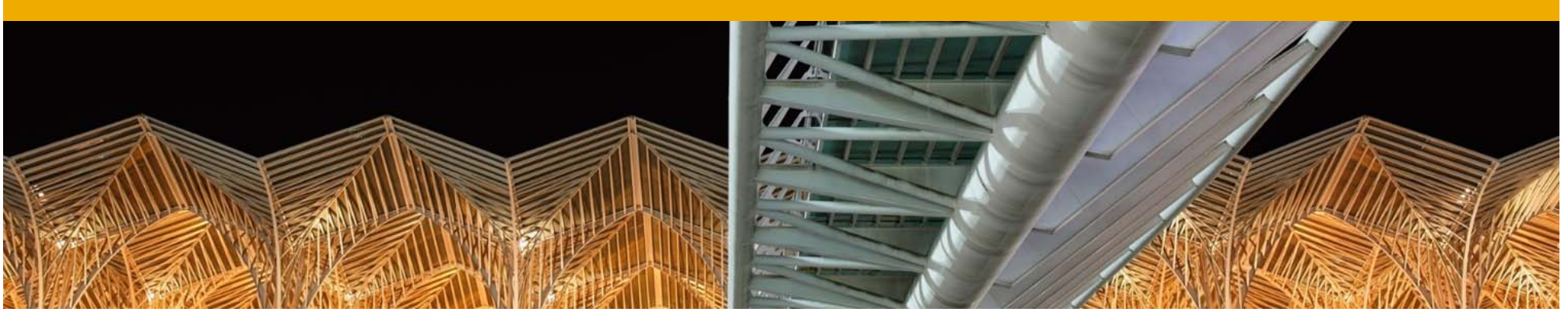
- Downtime for patch rollback and SBP installation
- No additional disk space required
- Migration check script included
 - Full Oracle Home prerequisite checks
 - Checks for custom patches (if detected: open CSS ticket)

Install in new Oracle Home

for System Availability

- Downtime for Oracle Home switch only
- Additional disk space required
- Migration check script included
 - Checks for custom patches (if detected: open CSS ticket)

For details see SAP Note [2011199](#)



Miscellaneous



SAP on Oracle Database 10g

Restricted Extended Support



Regular Extended Support expired 31 July, 2013

Restricted Extended Support

August 2013 through July 2015

- **Except:** Itanium platforms until December 2015:
Windows IA64, Linux IA64,
HP-UX IA64

Terms and Conditions

'Severity 1' fixes only

- No more Critical Patch Updates (CPUs)
- based on Oracle 10.2.0.5
- For the time being, pricing for SAP ASFU customers remains the same as previous Extended Support offering

For details see

- SAP Note [1110995](#)

Enhancements in BRARCHIVE

New Profile Parameters

*_arch parameters in `init<DBSID>.sap`

- Semantics like non-_arch parameters:
 - `rman_maxopenfiles_arch`
 - `rman_compress_arch`, etc.
- Allows BRARCHIVE to run differently from BRBACKUP

Parallel Disk Backup of Archive Log Files

May result in significant time savings

- Use new `init<DBSID>.sap` parameter
`exec_parallel_arch=<par_cnt>`

Backup of Standby Archive Log Files

Saving and deletion of archive log files generated on standby side

- Processing takes place on standby side
- Use new `init<DBSID>.sap` parameter:
`archive_type=standby`

Second Disk Copy of Archive Log Files

Disk backup of archive log files now credible alternative to backup on tape

- Also applies to remote disk (`stage`)

For details see SAP Note [1882182](#)

SAP on Oracle SAP Community Network

Content Page

<http://scn.sap.com/community/oracle>

SAP Community Network

Welcome, John Public 0 Points Logout

Solutions > SAP Services & Support > About SCN > Downloads > Activity Communications Actions

Industries > Training & Education > Partnership > Code Exchange > Browse Create

Lines of Business > University Alliances > Events & Webinars > Idea Place

SAP on Oracle

Overview Content

Featured Content

SAP on Oracle White Papers New!
We've just published Updated February 2012

12 - time to get reading ... 29 Feb

Oracle Patch Set 11.2.0.3 Released
We have now released the Oracle Database 11g Release 2 (11.2.0.3) Patch Set for UNIX platforms. For more information, see SAP Note 1631931 and the [Oracle Upgrade to Oracle Database 11g Release 2 \(11.2.0.3\) Patch Set](#) (Release 11.2.0.2 and 11.2.0.1). 20 Dec 2011

New Secure Connect Method New!
There is now a new method for the connection between SAP processes and the Oracle database. Instead of storing the encrypted password in the database, it is stored in the file system. This means that the Oracle remote OPSS connect, which has been used up till now, is no longer needed. For more information, see SAP Notes 1622837 and 1639578. 6 Dec 2011

BR*Tools Now Supports Oracle ASM and Exadata
As of patch 18 for BR*Tools 7.20, you can now use BR*Tools to manage Oracle 11g databases based on Oracle Automatic Storage Management (ASM), including Oracle Exadata Database Machine. For more information, see SAP Note 1627541 and SAP Note 1592954

Actions

- Start a discussion
- Write a document
- Write a blog post
- Receive email notifications
- Track in Communications
- View feeds

Key Topics

- Oracle DBA Overview
- Installation and Upgrade
- Backup and Recovery
- Oracle Real Application Clusters (RAC)
- Performance
- Security
- Oracle Automatic Storage Management (ASM)

Cisco and SAP offer differentiated, scalable, highly secure end-to-end solutions that reduce deployment

Forum

<http://scn.sap.com/community/oracle/content>

SAP Community Network

Welcome, John Public 0 Points Logout

Solutions > SAP Services & Support > About SCN > Downloads > Activity Communications Actions

Industries > Training & Education > Partnership > Code Exchange > Browse Create

Lines of Business > University Alliances > Events & Webinars > Idea Place

SAP on Oracle

Overview Content People Subspaces

Actions

- Start a discussion
- Write a document
- Upload a file
- Write a blog post

All Content (9324) Blog Posts (9) Documents (38) Discussions (9277) Polls (0)

Type to filter by text Filter by tag Sort by latest activity (d)

1 2

ORA-12547 in sqlplus upgrading from 11.2.0.1...

Hello, I've struck an issue while trying to upgrade my SolMan Dev system from 11.2.0.1 to 11.2.0.3. I'm using the Upgrade Guide dated 2011-12-20 version 3.00. What I've done: installed the 11.2.0.3 software l...

created by John Marshall

[Oracle] Running SAP with Oracle Data Guard 11.2.0...

h2. Introduction You are allowed to run your Oracle database with Oracle Data Guard (physical standby database) by SAP. Oracle itself is publishing "Data Guard Physical Recommended Patch Bundles", but there is n...

last modified by Stefan Koehler

[Oracle] Hinting a SQL without adding a hint

Introduction Almost every SAP basis guy or DBA knows that situation - you got a piece of code by a software vendor and the executed SQLs are very slow. You know the cause of the problem, but you can not fix the code,...

last modified by Stefan Koehler

Sponsored Content

- [Oracle] Migrating SAP systems on Oracle with...
- [Conference] DOAG 2009 ... see you in Nuremberg
- [Oracle] Real Application Testing with SAP

SAP on Oracle Twitter

Follow us on Twitter®

<https://twitter.com/SAPonOracle>

Get instant notification about...

- SAP Hot News
- Product Certifications
- Best Practices
and a lot more...

The screenshot shows the Twitter profile page for @SAPonOracle. The profile banner features a large, intricate, spherical structure with the SAP logo overlaid. The bio reads: "SAP on Oracle @SAPonOracle News and info for SAP customers running the Oracle database scn.sap.com/community/orac...". The statistics show 14 tweets, 0 following, and 25 followers. A "Follow" button is visible. The "Tweets" section displays three recent tweets from @SAPonOracle, each with a "Expand" link. The first tweet is dated 26 Jun and discusses Oracle Database Appliance (ODA) installation. The second tweet is dated 25 Jun and mentions Oracle 10.2 Restricted Extended Support. The third tweet is dated 18 Jun and mentions a new SAP on Oracle development update. The left sidebar contains navigation links for Tweets, Following, Followers, Favorites, and Lists, as well as a "Follow SAP on Oracle" sign-up form with fields for Full name, Email, and Password, and a "Sign up" button. Below the sign-up form are "Worldwide Trends" and a footer with copyright and navigation links.



Thank You!

© 2014 SAP AG. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP AG. The information contained herein may be changed without prior notice.

Some software products marketed by SAP AG and its distributors contain proprietary software components of other software vendors.

Microsoft, Windows, Excel, Outlook, and PowerPoint are registered trademarks of Microsoft Corporation.

IBM, DB2, DB2 Universal Database, System i, System i5, System p, System p5, System x, System z, System z10, System z9, z10, z9, iSeries, pSeries, xSeries, zSeries, eServer, z/VM, z/OS, i5/OS, S/390, OS/390, OS/400, AS/400, S/390 Parallel Enterprise Server, PowerVM, Power Architecture, POWER6+, POWER6, POWER5+, POWER5, POWER, OpenPower, PowerPC, BatchPipes, BladeCenter, System Storage, GPFS, HACMP, RETAIN, DB2 Connect, RACF, Redbooks, OS/2, Parallel Sysplex, MVS/ESA, AIX, Intelligent Miner, WebSphere, Netfinity, Tivoli and Informix are trademarks or registered trademarks of IBM Corporation.

Linux is the registered trademark of Linus Torvalds in the U.S. and other countries.

Adobe, the Adobe logo, Acrobat, PostScript, and Reader are either trademarks or registered trademarks of Adobe Systems Incorporated in the United States and/or other countries.

Oracle and Java are registered trademarks of Oracle and/or its affiliates.

UNIX, X/Open, OSF/1, and Motif are registered trademarks of the Open Group.

Citrix, ICA, Program Neighborhood, MetaFrame, WinFrame, VideoFrame, and MultiWin are trademarks or registered trademarks of Citrix Systems, Inc.

HTML, XML, XHTML and W3C are trademarks or registered trademarks of W3C[®], World Wide Web Consortium, Massachusetts Institute of Technology.

SAP, R/3, SAP NetWeaver, Duet, PartnerEdge, ByDesign, SAP BusinessObjects Explorer, StreamWork, and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP AG in Germany and other countries.

Business Objects and the Business Objects logo, BusinessObjects, Crystal Reports, Crystal Decisions, Web Intelligence, Xcelsius, and other Business Objects products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of Business Objects Software Ltd. Business Objects is an SAP company.

Sybase and Adaptive Server, iAnywhere, Sybase 365, SQL Anywhere, and other Sybase products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of Sybase, Inc. Sybase is an SAP company.

All other product and service names mentioned are the trademarks of their respective companies. Data contained in this document serves informational purposes only. National product specifications may vary.

The information in this document is proprietary to SAP. No part of this document may be reproduced, copied, or transmitted in any form or for any purpose without the express prior written permission of SAP AG.