

# SAP on Oracle

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Public



Neue Möglichkeiten. Ziele einfacher erreichen.



# Disclaimer

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# Agenda

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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

SUPPORT DATES  
See SAP Note  
**1431799**

ORACLE  
DATABASE **11g**

### Patch Set 11.2.0.2


1<sup>st</sup> 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

2<sup>nd</sup> Patch Set for Oracle 11.2  
Released 12 December, 2011


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

August 2014 SBP is most  
recent and contains PSU 11  
for 11.2.0.3 (11.2.0.3.11)

August 2015 SBP will be final

### Patch Set 11.2.0.4

Final Patch Set for Oracle 11.2  
Released 14 February, 2014

- 
- General Availability since February 2014
  - Windows Cluster available since May 2014

August 2014 SBP is most  
recent and contains PSU 3 for  
11.2.0.4 (11.2.0.4.3)

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 12c Roadmap



## 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
  - Base certification w/o major 12c features
  - Staged rollout for major features later



## New Features

Planned with initial certification:

- Advanced Index Compression<sup>1)</sup>
  - Automatic prefix computation
  - Higher compression rate, ease of use
- Client-Server Network Compression<sup>1)</sup>
  - Less network load between application servers and database instance(s)

1) requires Advanced Compression

## New Features

Planned with initial certification:

- ACFS Support on Exadata
  - For SAP shared file system support (/sapmnt, etc.)
- RAC: HA-NFS support with ACFS
  - Complete SAP HA solution for shared file system
- RMAN: Cross platform backup and restore
  - Faster and easier heterogeneous platform migration
- Storage Snapshot Optimization
  - No more begin/end backup for certain snapshot technologies
- Active Data Guard Far Sync<sup>1)</sup>
  - High performance zero data loss across large distance WAN

1) requires Active Data Guard Option

## New Features

Not available with initial certification, rollout in staged approach:

- Information Lifecycle Management (ILM)/ADO<sup>1)</sup>
- Multitenant (aka. Pluggable Databases)<sup>2)</sup>
- In-Memory<sup>3)</sup>
- Hybrid Columnar Compression (HCC)<sup>1), 4)</sup> for Exadata and SuperCluster
- Online Move Partition
- Move a Datafile Online

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

# Engineered Systems Update

# Engineered Systems Update

## Exadata | Exalogic & Co.

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### Oracle Exadata Database Machine X2 | X3 | X4

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

- 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

- **NEW!** Virtual Exalogic (using Oracle VM)
- 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)

Support for V1, X3-2 and X4-2

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

# Engineered Systems Update

## **NEW!** Virtual Compute Appliance

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### **Oracle Virtual Compute Appliance (OVCA)**

Engineered system designed for virtualization

Supported for SAP since September, 2014

- Starting from OVCA Version 1.1.3
- Based on Oracle VM

### Guest Operating Systems Support

- Oracle Linux 5 and 6
- Oracle Solaris 10 and 11

For details see

- SAP Note [2052912](#)

### SAP Products Support

- All SAP products and database versions certified for supported guest OS
- Check SAP Product Availability Matrix (PAM)

# Virtualization Update

# Virtualization Update

## Oracle VM

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### Certification

Supported for SAP as follows:

- OVM 3.2.1 or higher
- x86-64 platforms<sup>1)</sup>
- 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

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### 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

# Virtualization Update

## **NEW!** Microsoft Azure

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SAP Products can now be deployed using the Oracle Database in a Microsoft Azure environment.

### Supported Oracle Database versions:

- Minimum:
  - Oracle Database 11g Release 2 Patch Set 3 (11.2.0.4)
- Single Instance only

### Supported Operating System versions:

- Windows Server 2012
- Windows Server 2012 R2
- Windows Server 2012 R2 Service Pack 1

### For details see:

- SAP Note [1928533](#) – List of supported SAP Products and Azure VM types
- SAP Note [2039619](#)

# SAP Bundle Patches

## New Structure



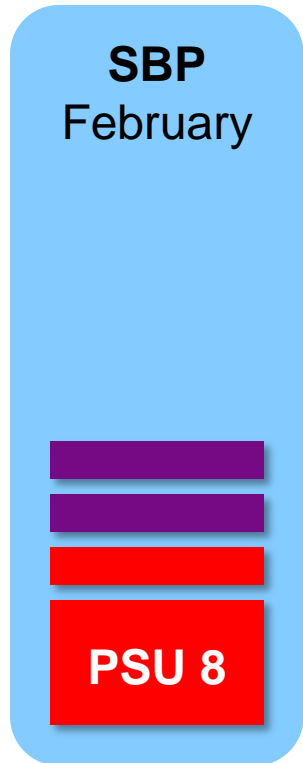
# SAP Bundle Patches

## New Structure

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### 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

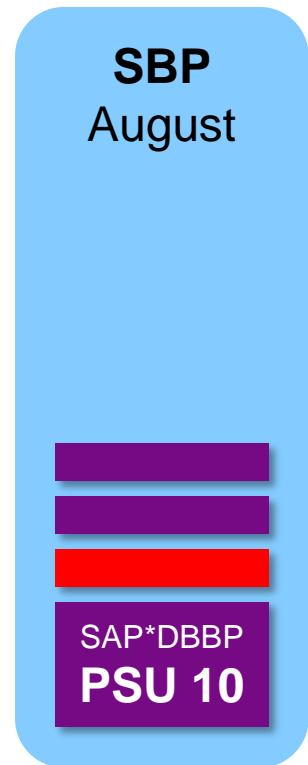
# SAP Bundle Patches

## New Structure

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### New SBP structure eliminates patch pile-up

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



# SAP Bundle Patches

## New Structure

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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

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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](#)

# SAP on Oracle

## SAP Community Network

### Content Page

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

The screenshot shows the SAP Community Network interface. At the top, there's a navigation bar with 'SAP Community Network' and user options like 'Hi, Guest', 'Log On', and 'Join Us'. Below this is a search bar and a menu with categories like 'Products', 'Services & Support', 'About SCN', 'Downloads', 'Industries', 'Training & Education', 'Partnership', 'Developer Center', 'Lines of Business', 'University Alliances', 'Events & Webinars', and 'Innovation'. The main content area is titled 'SAP on Oracle' and has tabs for 'Overview', 'Content', 'People', and 'Subspaces'. The 'Overview' tab is active, showing a featured article titled 'Structural Changes in SAP Bundle Patches' with a date of May 28, 2014. Below this, there are sections for 'Key SAP Notes' (listing recent hot news and top notes for Oracle 11g, 10g, and BR\*Tools), 'SAP on Oracle Development Update' (dated Apr 24, 2014), 'Unanswered Questions' (with three questions about SAP system connectivity, partitioning engine, and Data Guard logs), and 'Popular Tags' (including '11g', 'abap', 'brtools', 'content', 'database', 'error', and 'oracle').

### Forum

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

The screenshot shows the SAP Community Network forum interface. It features the same top navigation bar as the content page. The main content area is titled 'SAP on Oracle' and has tabs for 'Overview', 'Content', 'People', and 'Subspaces'. The 'Content' tab is active, displaying a list of forum posts. At the top of the forum view, there's a filter section with 'All Content (11044)', a search bar, and options to 'Filter by tag' and 'Sort by latest activity (descending)'. Below this, there are three featured forum posts. The first is titled 'SAP system can not connect to Oracle stan...' and is by user 'kiraang vira'. The second is 'Key Notes for SAP on Oracle' by 'Aidan Constable'. The third is 'SOFFCONT1 table reorganization error' by 'Akash Ahuja'. Each post includes a brief description, a date, and a 'last modified by' field. At the bottom, there's a 'Sponsored Content' section with three ads: 'Hitachi Data Systems', 'Who use SAP Partitioning Engine for Oracle?', 'Oracle Data Guard logs shipping stopped', and 'SSFS (Secure Storage in File System) configu'.

# 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 the SAP logo and the text "SAP on Oracle @SAPonOracle News and info for SAP customers running the Oracle database scn.sap.com/community/orac...". The profile statistics show 14 tweets, 0 following, and 25 followers. The "Tweets" section displays three recent tweets from @SAPonOracle, each with a date and a "Follow" button. The first tweet is dated 26 Jun and discusses Oracle Database Appliance (ODA) and SAP HA solution. The second tweet is dated 25 Jun and discusses Oracle 10.2 Restricted Extended Support. The third tweet is dated 18 Jun and discusses a new SAP on Oracle development update. The left sidebar contains a navigation menu with "Tweets", "Following", "Followers", "Favorites", and "Lists". Below the menu is a "Follow SAP on Oracle" form with fields for "Full name", "Email", and "Password", and a "Sign up" button. At the bottom of the sidebar, there are "Worldwide Trends" and a footer with copyright information.



# Thank You!

# BR\*Tools 7.40

## Enhancements in BRARCHIVE

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### 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](#)