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<td>Miscellaneous</td>
</tr>
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SAP on Oracle Database 10g
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 Database 11g
Certification

Oracle Database 11g Release 2 (11.2) only
SAP products based on 640_EX2 kernel and later only
  • Restricted to products which are in SAP Extended Maintenance at least until end of 2010

Certification available on all OS platforms
  • Except: Windows IA64, Linux IA64, Linux on Power

For details see
  • SAP Note 1398634

Oracle 11.2 Instant Client

SAP-certified since February 2011

Don’t forget:
  Update the Oracle client from 10.2 to 11.2 to get out of Oracle 10.2 Extended Support obligation!
## Supported Releases

<table>
<thead>
<tr>
<th>Patch Set 11.2.0.2</th>
<th>Patch Set 11.2.0.3</th>
<th>Patch Set 11.2.0.4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1st Patch Set for Oracle 11.2</strong></td>
<td><strong>2nd Patch Set for Oracle 11.2</strong></td>
<td><strong>Final Patch Set for Oracle 11.2</strong></td>
</tr>
<tr>
<td>Released 10 November, 2010</td>
<td>Released 12 December, 2011</td>
<td>Released 14 February, 2014</td>
</tr>
<tr>
<td>• General Availability since mid January 2011</td>
<td>• HP-UX PA-RISC available since June 2012</td>
<td>• General Availability since February 2014</td>
</tr>
<tr>
<td>• Windows available since 10 May, 2011</td>
<td>• Windows available since 14 February, 2012</td>
<td>• Windows Cluster available since May 2014</td>
</tr>
<tr>
<td>November 2013 SBP was <strong>final</strong> and contains PSU 12 for 11.2.0.2 (11.2.0.2.12)</td>
<td>February 2015 SBP is most recent and contains PSU 13 for 11.2.0.3 (11.2.0.3.13)</td>
<td>February 2015 SBP is most recent and contains PSU 5 for 11.2.0.4 (11.2.0.4.5)</td>
</tr>
<tr>
<td></td>
<td>August 2015 SBP will be <strong>final</strong></td>
<td>New SAP projects should start on 11.2.0.4 or higher</td>
</tr>
</tbody>
</table>
Extended Support for Oracle Database 11g starts 1 February 2015

1st year of Extended Support is free-of-charge

No charges until 31 January 2016

- Automatic participation
- Supported releases:
  - 11.2.0.4
  - 11.2.0.3 (until 31 July 2015)

For details see
- SAP Note 2098258
<table>
<thead>
<tr>
<th><strong>Overview Compression Technologies</strong></th>
<th><strong>in SAP Environments</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Convert Tables to Compressed IOTs</strong></td>
<td><strong>Implement Index Compression</strong></td>
</tr>
<tr>
<td>- Improves query and DML performance and saves disk space</td>
<td>- Improves R/3 performance the most as all database access in R/3 environments is index-based, especially index range scans</td>
</tr>
<tr>
<td>- Only convert the largest tables</td>
<td>- Up to 20% disk space reduction for complete database</td>
</tr>
<tr>
<td>- For details, see SAP Note 1856270</td>
<td><strong>Implement OLTP Table Compression</strong></td>
</tr>
<tr>
<td></td>
<td>- No real query performance benefit in R/3 environments</td>
</tr>
<tr>
<td></td>
<td>- Provides very good disk space savings</td>
</tr>
<tr>
<td></td>
<td>- Only compress the largest tables</td>
</tr>
<tr>
<td><strong>Implement OLTP Table Compression</strong></td>
<td><strong>Implement SecureFiles Compression</strong></td>
</tr>
<tr>
<td><strong>Implement SecureFiles Compression</strong></td>
<td>- Very important for SAP applications like CRM or XI/PI that store large (uncompressed) amounts of data</td>
</tr>
</tbody>
</table>
## Overview Space Savings
with ACO on customer databases

<table>
<thead>
<tr>
<th>Database</th>
<th>Without Compression [GB]</th>
<th>With Compression(^1) [GB]</th>
<th>Space Savings [Factor]</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECC 6.0</td>
<td>4,782</td>
<td>1,976</td>
<td>2.4</td>
</tr>
<tr>
<td>BI 7.0</td>
<td>1,413</td>
<td>543</td>
<td>2.6</td>
</tr>
<tr>
<td>CRM 7.0</td>
<td>950</td>
<td>334</td>
<td>2.8</td>
</tr>
<tr>
<td>RMAN Backup(^3)</td>
<td>2,817</td>
<td>667</td>
<td>4.2</td>
</tr>
<tr>
<td>Export Data Pump</td>
<td>973</td>
<td>156</td>
<td>6.2</td>
</tr>
</tbody>
</table>

\(^1\) incl. other space optimizations  \(^2\) fully reorganized  \(^3\) for compressed database
**10x faster data loads**

- No more drop/create indexes
- Use of unusable indexes
- Use of table factoring

For details see
- SAP Note [1842044](#)

<table>
<thead>
<tr>
<th></th>
<th>Without Optimization [sec]</th>
<th>With Optimization [sec]</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Request</td>
<td>120</td>
<td>11</td>
</tr>
<tr>
<td>10 Requests</td>
<td>1,200</td>
<td>100</td>
</tr>
</tbody>
</table>
Encryption

Part of Oracle Advanced Security (ASO)

Comprising…

- Tablespace encryption
- SecureFile encryption
- RMAN backup encryption
- EXPDP encryption
- Data Guard Secure Redo Transport

Explicit ASO license mandatory

- SAP ASFU license includes ASO
Oracle Database Vault

Requirements:
- Oracle 11.2.0.2 and higher
- SAP 7.00 based kernels and higher
  - e.g. ECC 6.0, BI 7.0, CRM 5.0, …

Different pricing models for SAP customers
- Depending on Oracle database licensing model (ASFU or Oracle Full License)

For details see
- SAP Note 1355140
- Oracle Database Vault white paper on SCN
SAP on Oracle Database 11g
Real Application Clusters

Oracle Real Application Clusters 11.2
Available on all Unix/Linux and Windows platforms
- for all SAP kernels 640_EX2 and up
- Option to put OCR and voting disks on ASM (new RAC 11.2 installations only)
- Upgrades from RAC 10.2 must still use shared file systems for OCR and voting disks

For details see
- SAP Note 527843
- Oracle RAC white paper on SCN
SAP Control SAPCTL 6 and 7
To manage and control critical SAP resources through Oracle Clusterware
- Central Services and Replication (ASCS, SCS)
- Web Dispatcher

Integration certified with SAP NetWeaver 7.30
- via SAP Integration Scenario NW-HA-CLU 730

For details see
- SAP Note 1496927

Clusterware 11.2
- Oracle Services based Clusterware configuration!
- Same supported technology stacks as hitherto stay in place

For details see
- SAP Note 527843
- Oracle RAC white paper on SCN
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

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

¹) not available on HP-UX
SAP on Oracle Database 11g
Notes & Documentation

Entry Notes

1398634 Oracle Database 11g: Integration in SAP Environment
1434131 Release of Oracle 11.2 for older SAP Releases
1431800 Oracle 11.2.0: Central Technical Note
1431799 Oracle 11.2.0: Current Patch Set

New Oracle 11.2 Features

1355140 Using Oracle Database Vault in an SAP Environment
1436352 Oracle 11g Advanced Compression for SAP Systems
1426979 Oracle 11g: SecureFiles – The New Way to Store LOB Data
1416773 Oracle Direct NFS
1550133 Oracle Automatic Storage Management (ASM)
1856270 Performance Improvements for Tables with Single Unique Index

Regularly Updated
on 10th of every month

1949250 Oracle 11.2.0: Patches/Patch Collections for 11.2.0.4
1631931 Oracle 11.2.0: Patches/Patch Collections for 11.2.0.3
1431798 Oracle 11.2.0: Database Parameter Settings
Installation and Upgrade

1431797  Oracle 11.2.0: Troubleshooting the Database Upgrade
1431796  Oracle 11.2.0: Troubleshooting the Software Installation
1431794  Oracle 11.2.0: Instant Client
1431793  Oracle 11.2.0: Upgrade Scripts

Upgrade Guides

Oracle 11.2 Database Upgrade

http://service.sap.com/instguides
  → Database Upgrades
    → Oracle

Tools relevant for Oracle 11.2

1430669  BR*Tools Support for Oracle 11g
1027012  MOPatch – Install Multiple Oracle Patches in One Run
SAP on Oracle Database 12c
Oracle Database 12c Release 1 (12.1)
Certified for SAP NetWeaver based SAP products starting 31 March 2015

- Including:
  - Oracle RDBMS 12c
  - Oracle Grid Infrastructure 12c
  - 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

For details see
- SAP Notes 2133079 and 1914631
Limitations on this slide are planned to be lifted during May 2015

CURRENTLY POSSIBLE

• Upgrade of existing SAP NetWeaver systems to Oracle 12.1

CURRENTLY NOT POSSIBLE

• Installation and System Copy:
  – SAP Installation
  – R3load based system copy
  Workaround: SAP installation/system copy with Oracle 11g and subsequent upgrade to 12c

• Upgrade:
  – SAP upgrade with underlying Oracle 12c
  – Applying Enhancement Packages
### Limited Feature Support
Runtime certification does not cover the following features:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Planned for</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oracle Database 12c In-Memory</td>
<td>end of Q2/2015</td>
</tr>
<tr>
<td>Oracle Database 12c Multitenant</td>
<td>end of 2015</td>
</tr>
<tr>
<td>Oracle Database 12c ADO/ILM</td>
<td>end of Q2/2015</td>
</tr>
<tr>
<td>Hybrid Columnar Compression for Exadata</td>
<td>end of Q2/2015</td>
</tr>
<tr>
<td>Oracle Database Vault</td>
<td>Q3/2015</td>
</tr>
</tbody>
</table>
As of now, the following SAP products are certified with Oracle Database 12.1.0.2:
– See the SAP Product Availability Matrix (PAM) for product versions released with Oracle 12c –

<table>
<thead>
<tr>
<th>CERTIFIED PRODUCTS</th>
<th>CERTIFICATION PENDING</th>
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<td>SAP NetWeaver 7.0, 7.1, 7.3, 7.40, 7.50</td>
<td>SAP LVM</td>
</tr>
<tr>
<td>SAP BW 7.0/7.0X, 7.1X, 7.20, 7.3X, 7.40, 7.50</td>
<td>SAP MDM</td>
</tr>
<tr>
<td>SAP ERP 6.0</td>
<td></td>
</tr>
<tr>
<td>SAP CRM 7.0</td>
<td></td>
</tr>
<tr>
<td>SAP SCM 7.0</td>
<td></td>
</tr>
<tr>
<td>SAP SRM 7.0</td>
<td></td>
</tr>
<tr>
<td>Banking Services from SAP 6.0, 7.0, 8.0, 9.0</td>
<td></td>
</tr>
<tr>
<td>SAP Solution Manager 7.1, 7.2</td>
<td></td>
</tr>
<tr>
<td>SAP NW CE 7.1, 7.20</td>
<td></td>
</tr>
<tr>
<td>SAP NW PI 7.1</td>
<td></td>
</tr>
</tbody>
</table>

1) including all corresponding EhPs

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Features supported as of certification

The following features are available with initial certification:

- Advanced Index Compression\(^1\)
  - Automatic prefix computation
  - Higher compression rate, ease of use
- Client-Server Network Compression\(^1\)
  - Less network load between application servers and database instance(s)
- ACO Table Compression: Support for > 255 columns
- ACFS Support on Exadata
  - for SAP shared file system support (/sapmnt, etc.)

\(^1\) requires Advanced Compression Option
Features supported as of certification (continued)

The following features are available with initial certification:

- **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**
  - High performance zero data loss across large distance WAN
- **Online Move Partition, Move a Datafile Online**

1) requires Active Data Guard Option
Features not supported as of certification
The following features are not available with initial certification, rollout in staged approach:

• Information Lifecycle Management (ILM)/ADO
• Multitenant (aka. Pluggable Databases)
• In-Memory
• Hybrid Columnar Compression (HCC) for Exadata and SuperCluster

1) requires Advanced Compression Option  2) requires new Multitenant Option  3) requires new Database In-Memory Option  4) Automatic Data Optimization (ADO) prerequisite
NEW! Support for Oracle 12c

BR*Tools now offer support for the following Oracle 12c features

Available from BR*Tools 7.40 Patch 14

- Move Data File Online
- Online MOVE PARTITION
- Support for Advanced Index Compression
- Compression of tables with > 255 columns
- Reorganization of tables with long names
- Oracle Wallet in ASM

For details see

- SAP Note 2087004
Entry Notes

2133079  Oracle Database 12c: Integration in SAP Environment
1914631  Central Technical Note for Oracle Database 12c
          Release 1 (12.1)
1915313  Current Patch Set for Oracle Database 12c
          Release 1 (12.1)

Regularly Updated
on 10th of every month

1915316  Database: Patches for Oracle 12.1.0.2
1888485  Database Parameters for Oracle 12.1.0.2

Installation and Upgrade

1915302  Database Software 12.1.0.2 Installation on Windows
1915301  Database Software 12.1.0.2 Installation on Unix
1915299  Troubleshooting Software Installation for 12.1.0.2

Oracle 12c Features

2138262  Oracle Database 12c Advanced Compression for
          SAP Systems
Engineered Systems Update
Engineered Systems Update
Exadata

Oracle Exadata Database Machine X2 – X5
Clustered database and storage server
Support for X2-2|8, X3-2|8, X4-2|8 and NEW! X5-2
Oracle Exadata License required
• x86-64 hardware only
• Exadata Machine type and software defines
  – available operating systems
  – Oracle RDBMS versions
  – availability of virtualization

SAP Products Support
• NW 7.0 or higher based SAP products
• BO Reporting Data Source 4.0 SP6, 4.1 and higher
• SAP NW MDM 7.1 SP10 and higher

For details see
• SAP Note 1590515
• Oracle Exadata white paper on SCN
Oracle Exalogic X2 | X3 | X4

Clustered application server

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

- In combination with Exadata only!
  - Oracle 11.2.0.2 or later required on Exadata
- x86-64 hardware only
- Oracle Linux 5 or Oracle Solaris 11
- **NEW!** Virtual Exalogic (using Oracle VM) now supported
  - EECS\(^1\) 2.0.6.0.0 and up

For details see

- SAP Note 1617188

---

**SAP Products Support**

- NW 7.0 or higher based SAP products
- **Unicode** only

---

1) Oracle Exalogic Elastic Cloud Software
Oracle SPARC SuperCluster

General purpose engineered system

Supported for SAP since 2012
- T4-4, T5 and M6 SPARC hardware
- Oracle Solaris 11 required
- Oracle 11.2.0.3 or later required

For details see
- SAP Note 1693680

SAP Products Support
- NW 6.40 or higher based SAP products
  - 640_EX2, 720_EXT kernels only
- SAP NW MDM 7.1 SP10 and higher
Engineered Systems Update

Database Appliance

Oracle Database Appliance (ODA)

Two-node clustered database server

Support for V1, X3-2 and X4-2

- Starting from ODA Version 2.4:
  - ODA Version 2.4 + ODA OAK Patch 2.4.1
  - ODA Version 2.6 through 2.10\(^1\)
- Oracle Linux 5 only
- Oracle 11.2.0.3.4 or higher

For details see

- SAP Note 1760737
- Oracle ODA white paper on SCN

SAP Products Support

- NW 7.0 or higher based SAP products
- BO Reporting Data Source 4.0 SP6, 4.1 and higher
- SAP NW MDM 7.1 SP10 and higher

\(^1\) Versions 2.6 through 2.10 on Bare Metal only
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)
Certification

Supported for SAP as follows:

- Oracle VM 3.2.1 or higher
- x86-64 platforms\(^1\)
- See SAP Note 1808268

Guest Operating Systems Support

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

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

\(^1\) not with ODA
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 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
Previous SBP structure prone to patch pile-up
SAP overlay patches never fully incorporated in next Oracle PSU underlying the SBP

- SBP February
- SBP March
- SBP April
- SBP May
- SBP June
- SBP July
- SBP August

PSU 8
PSU 8
PSU 8
PSU 9
PSU 9
PSU 9
PSU 10
As of June 2014, Oracle provides 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
New SBP structure eliminates patch pile-up
SAP overlay patches fully incorporated in next SAP*DBBP underlying the SBP
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
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
Performance
ABAP Core Data Services
Application servers’ purpose is to relieve the database server, but:

**Today the database server is no longer the critical resource**

**Data-Centric Approach**

Push calculations/business logic from application server down to database server

- Eliminates data traffic...
- …and allows for local data access optimization

“*Bring the algorithm to the data*”
Performance
ABAP Code Revision

Reduced Data Traffic
No longer move data to application server
→ Use temporary database tables instead

Query Optimizations
Avoid `SELECT *`
→ Use explicit column list instead

Optimizations in many application areas, e.g.
- Sales and Distribution
  - Lists of Sales and Distribution Documents
  - Determination of Billing Documents during Rebate Processing
- Materials Management
  - Transactions MB5L and MB25
- SAP Treasury and Risk Management

See SAP Note 1835008
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
Examples:
- CONCAT, REPLACE, SUBSTRING, LPAD
- UNIT_CONVERSION
- CURRENCY_CONVERSION
- …
See the ABAP documentation for a full list of CDS functionality
Available as of NetWeaver 7.40 SP8
Miscellaneous
Legal Issues
Oracle Extended Support

Software Policy
The following Oracle software policy is effective:

For Oracle products in Extended Support, a valid Oracle Extended Support contract is required for
- downloading from SMP
- applying

any Oracle patches related to this product, e.g.
- SAP Bundle Patches (SBPs)
- ...

• Effective since 1 December, 2011

Caution!
SBPs etc. for Oracle are visible on SAP Marketplace for all customers. However:

| Downloading or applying this software is prohibited without a valid Oracle Extended Support contract! |

For details see
• SAP Hot News Note 1654734
Motivation
OPS$ connect vulnerable to attack
- For recommendations on how to secure OPS$ mechanism against potential attack see SAP Note 157499

ABAP Secure Store
To strengthen database security
- Database password encrypted in file system
- Makes OPS$/SAPUSER connect obsolete
- Allows remote_os_authent=false

Availability
Available for all 7.X kernel-based SAP versions
- Optional but recommended for Oracle 10 and 11, mandatory for upcoming Oracle 12
- SAP Kernel 7.20 Patch 100 required
- Available throughout 7.X via 7.20 downwards-compatible kernel (DCK) since Q4/2011

Notes
1623922 Connect to Oracle Database
1622837 New Connect Method of AS ABAP to Oracle via SSFS
157499 OPS$ Connect and Security Aspects
Changing the Database Password

brconnect -f chpass now handles both
- OPS$ Connect → SAPUSER table
- Secure Connect → Secure Store/SSFS
mechanism and changes the password in the proper location.
- Supports both ABAP and Java Secure Store

Expert option –s | –secstore
To force or skip changes in a specific SSFS
-s|--secstore abap|abapshd|java|javashd|brtools|none

BR*Tools Secure Store

In combination with ABAP SSFS:
- Fully eliminates need for OPS$ user!
- Own BR*Tools Secure Store on database server
- Access through BRT$ADM database user in BR*Tools SSFS instead of OPS$ user
- Use –u|--user // option with BR*Tools

Availability

Secure Store Support is available as of BR*Tools 7.20 Patch 27.

See SAP Note 1764043
**BR*Tools 7.40**

**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

**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
  ```

**Parallel Disk Backup of Archive Log Files**

May result in significant time savings

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

**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
BR*Tools 7.40
Enhancements in BRBACKUP and BRRECOVER

BRBACKUP

• Consistent Online Backup of Standby Database
• Backup of Standby Database for a Primary Oracle RAC Database
• Creation of Copy of ASM Databases
• Creation of a Single Instance Database from a RAC Database

For details see
• SAP Note 1844380

BRRECOVER

• Reconfiguration of Online Redo Log Files during a Recovery

For details see
• SAP Note 2086966
BR*Tools 7.20 and 7.40

Notes

SAP Notes

2087004  BR*Tools Support for Oracle 12c
1430669  BR*Tools Support for Oracle 11g
1431296  LOB Conversion and Table Compression with BRSPACE 7.20
1428529  Corrections in BR*Tools Version 7.20
1598594  Configuration of BR*Tools for SAP Installations on User ‘oracle’
1627541  BR*Tools Support for Oracle ASM
1764043  Support for Secure Storage in BR*Tools
1838850  Corrections in BR*Tools Version 7.40
1882182  Functional enhancements in BRARCHIVE 7.40
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