

BR*Tools – Development Update

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SAP SE – DB Platform Oracle

June 2015



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Agenda

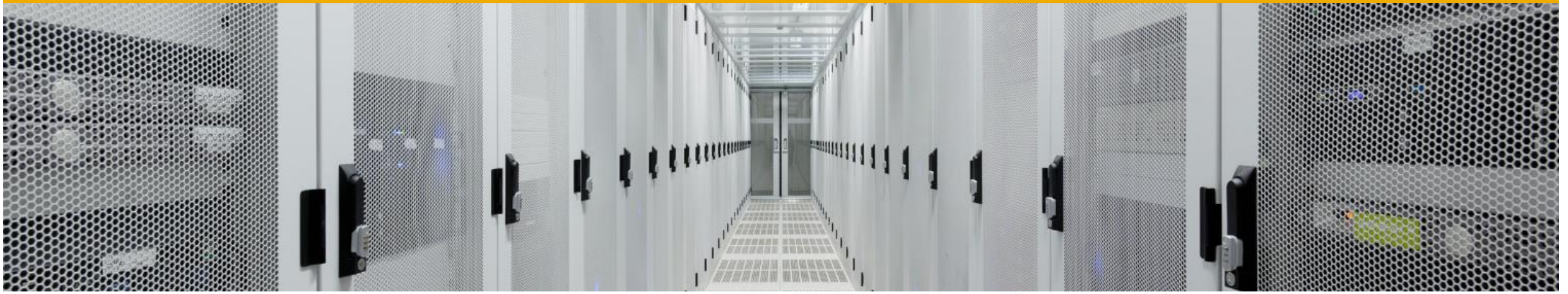
BR*Tools support for Oracle 12c

New Oracle 12c features supported by BR*Tools

New configuration of BR*Tools for Oracle 12c

Recent functional enhancements in BR*Tools

Questions & answers



BR*Tools Support for Oracle 12c



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BR*Tools Support for Oracle 12c

Support Statements

BR*Tools 7.20

Very limited support for Oracle 12c

Update to BR*Tools 7.40 as soon as possible



- Works: Update statistics
- Works: Database check
- ...
- Fails: RMAN backups
- Fails: Table reorganization
- ...

BR*Tools 7.40

Full support for Oracle 12c

Prerequisite: Patch level 14 or higher



- Complete old functionality is still available
- Selected new Oracle 12c features are supported
- New BR*Tools configuration required
- Availability of the PL 14: April 2015
- Availability of the last PL 16: June 2015
- Can be used with all SAP Kernel versions

See SAP note [2087004](#) for more details



Oracle 12c Features Supported by BR*Tools



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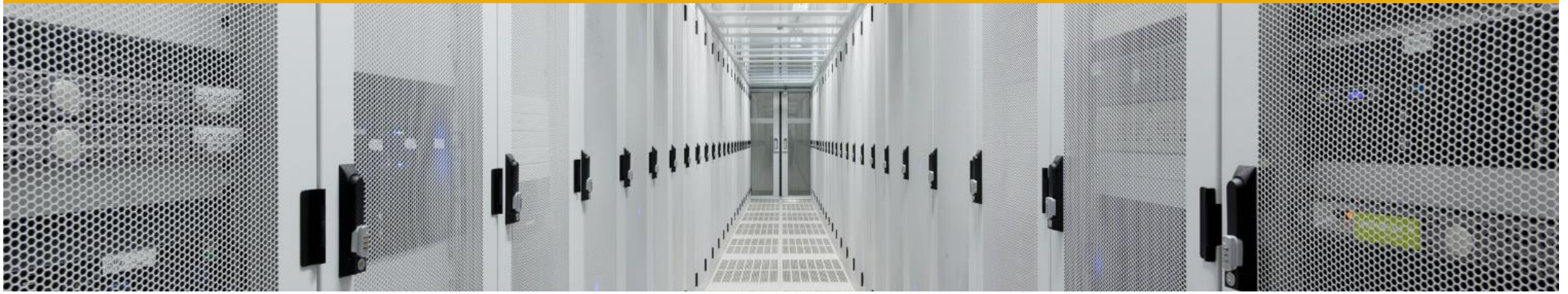
New Oracle 12c Features Supported by BR*Tools

List of Supported Features

BR*Tools 7.40 support for new Oracle 12c features

- Move data file online
- Online move partition
- Support for advanced index compression
- Compression of tables with more than 255 columns
- Reorganization of tables with long names
- Oracle encryption wallet on ASM disk

Supported as of BR*Tools 7.40, patch 14
For more details see SAP note [2087004](#)



Configuration of BR*Tools for Oracle 12c

New OS owner concept on Unix platforms

- User 'oracle' is the owner of Oracle software and database / BR*Tools files and directories
`drwxrwxr-x 1 oracle oinstall 4096 May 31 16:30 sapbackup`
- No ora<dbSID> user anymore in standard installations (still allowed as an installation option)
- User <sapsid>adm is the standard DBA user for all DBA operations (groups: ..., **oinstall**, ...)

New profile directory for BR*Tools and Oracle profile copies

- Unix: \$SAPDATA_HOME/saprof
`drwxrwxr-x 1 oracle oinstall 4096 May 31 16:30 sapprof`
- Windows: %SAPDATA_HOME%\saprof

For more details see SAP note [1598594](#)

New permissions of BR*Tools executables

-rwsrwsr--	1	oracle	oinstall	7732338	May	31	16:30	brarchive
-rwsrwsr--	1	oracle	oinstall	7908129	May	31	16:30	brbackup
-rwsrwsr--	1	oracle	oinstall	9970354	May	31	16:30	brconnect
-rwsrwsr--	1	oracle	oinstall	8376747	May	31	16:30	brrecover
-rwsrwsr--	1	oracle	oinstall	2783544	May	31	16:30	brrestore
-rwsrwsr--	1	oracle	oinstall	10479944	May	31	16:30	brspace
-rwxr-xr-x	1	prdadm	sapsys	4103679	May	31	16:30	brtools

New OPS\$ user for BR*Tools standard database connection

- OPS\$ORACLE

For more details see SAP note [1598594](#)



Functional enhancements BR*Tools



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Functional Enhancements in BR*Tools

Secure Storage Support

Changing the database password

`brconnect -f chpass` now handles both

- OPS\$ connect (→ SAPUSER table)
- Secure connect (→ secure storage / SSFS)

mechanism and changes the password in the proper location.

- Supports both ABAP and Java secure storage

Expert option `-s | -secstore`

To force or skip changes in a specific SSFS

```
-s | -secstore abap|abapshd|java|  
javashd|failsafe|ftp|  
brtools|none
```

BR*Tools specific secure storage

In combination with ABAP SSFS:

Fully eliminates need for OPS\$ user!

- Own BR*Tools secure storage on database server
- Access through BRT\$ADM database user stored in BR*Tools SSFS instead of OPS\$ user
- Use `-u | -user //` option with BR*Tools

Availability

Secure storage support is available as of BR*Tools 7.20, patch 27.

See SAP note [1764043](#)

Functional Enhancements in BR*Tools

Enhancements in BRARCHIVE

New profile parameters

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

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

Parallel disk backup of archivelog files

May result in significant time savings

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

For details see SAP note [1882182](#)

Backup of standby archivelog 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 archivelog files

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

- Also applies to remote disk (`stage`)

Enhancements in BRBACKUP and BRRECOVER

BRBACKUP

- Online consistent backup of a standby database (in connection with Oracle Data Guard)
- Backup of standby database for a primary Oracle RAC database
- Parallel backup to disk of Oracle big files with RMAN

For details see SAP notes [1844380](#), [2086966](#)

BRRECOVER

- Creation of a single instance database from RAC database backup
- Reconfiguration of online redolog files during database recovery
- Creation of a copy of an ASM database (according to SAP note 1003028)

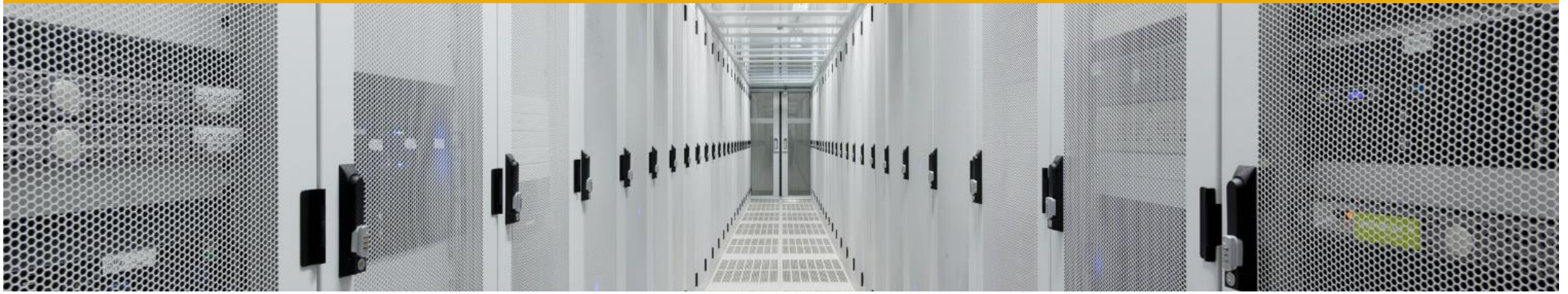
For details see SAP notes [1844380](#), [2086966](#)

Functional Enhancements in BR*Tools

Additional Sources of Information

SAP Notes

- [2087004](#) BR*Tools support for Oracle 12c
- [1598594](#) Configuration of BR*Tools for SAP installations using user 'oracle'
- [1764043](#) Support for secure storage in BR*Tools
- [2086966](#) Minor functional enhancements in BR*Tools (6)
- [1844380](#) Minor functional enhancements in BR*Tools (5)
- [1882182](#) Functional enhancements in BRARCHIVE 7.40
- [1838850](#) Corrections in BR*Tools version 7.40
- [1627541](#) BR*Tools support for Oracle ASM



Questions & Answers

Thank You!

