Update on Running Oracle Solutions on Linux on System z and how to best utilize the Oracle Support Structure when running on Linux on System z

Gaylan Braselton, IBM

Rhoda Sarmiento, Oracle (Kathryn Arrell)

Thursday August 9, 2012

Session Number 11640

SHARE
in Anaheim
2012

Oracle on Linux on System z

- New Announcements
  - Oracle 11gR2 Currency
  - Other Oracle Technology
  - Oracle Applications
- Events and Support
  - Oracle OpenWorld
  - Oracle Collaborate
  - zOracleSIG Webcasts
  - Education
- Oracle Support (Rhoda Sarmiento, see Agenda)

Complete your sessions evaluation online at SHARE.org/AnaheimEval

Oracle's Dedicated Level 2 System z Support

- *Enhancement to existing Support for Linux on System z Servers*

  - Manager, Raimund Reng

  - System z skilled and knowledgeable

  - WW Support

  - Level 2 support team

  - Request z team connected when z environment problems

  - Joint User/Oracle/IBM Conference Calls

  - Webcast Quarterly, Oracle z support update

Oracle 11gR2 Currency

- 11gR2 Currency

  - Quarterly PSU and CPU available for z same time as for all other platform

- Patch Updates

  - 11.2.0.3.3 (patch 13923374)

  - 11.2.0.2.7

  - 10.2.0.5.8 (now in extended support, additional cost)

Patch Set Update – Linux on z

- **Policy Change on Patch Set Update (PSU)**
  - Beginning with the October 2009 Critical Patch Update release, Oracle will now deliver Patch Set Updates for all platforms on the release date including Linux on z.
- **What is a PSU and when is it provided?**
  - PSU is a bundle of patches Oracle recommends to apply. It consists of CPU, Generic patch bundle, RAC patch bundle and Data Guard patch bundles
  - Quarterly released
- **Benefit for Linux on z Customers**
  - Verified and tested before provided to the customer
  - Easy database maintenance
  - Recommended patches now also available for Linux on z
  - Reduces problem situation and downtime.
- **What About Critical Patch Updates (CPUs)?**
  - In the future single Critical Patch Updates are only available on request via service reqwuest (SR)

Raimund Reng, Oracle Support – September 2009

Other Oracle Technology

- Hyperion Enterprise Performance Management can be run with an Oracle database as a data source and/or as a repository

- Oracle's most current Fusion Middleware release 12c of WebLogic Server Version 12.1.1, the first Oracle product certified and available on RHEL 6 on Linux for System z.

- Oracle's most current Enterprise Grid Control Agent release 12c v12.1.0.1 certified and available on Linux for System z.

- Oracle most current Fusion Middleware release 11gR1 of SOA and WebCenter v11.1.1 certified and available on Linux for System z, and continue to be delivered on the same day as other platforms, most recent FMW 11gR1 in 1Q12 PSU5.

Oracle Applications

- **PeopleSoft, Siebel, EBS Current in Muti-Platform Solution**
  - ***Oracle on Linux on z and DB2 on z/OS Solutions Available***
  - *E-Business Suite release V12.1. on Oracle DB 11g Release 2*
  - *PeopleSoft release is V9.1, on Oracle DB 11g Release 2 and DB2 V10*
  - *Siebel Enterprise and Business Applications release is V8.1.1, on Oracle DB 11g Release 2 and DB2 V10*

- **Oracle PeopleSoft Campus Solutions Version 9.0 ***
  Split Tier Running on Oracle DB 10gR2 and 11gR 2 on Linux for System z
  *Multi-Platform "Split Tier" Configuration – Only the Database runs on System z Servers
  Release References: Information may be found on Oracle's My Oracle Support website (userid and password
- required for access)
  https://support.oracle.com/CSP/ui/flash.html

- **Oracle Siebel Business Applications Version 8.1.1.8 ***
  Split Tier Running on Oracle DB2 Versions 10gR2 and 11gR2 on Linux on System z
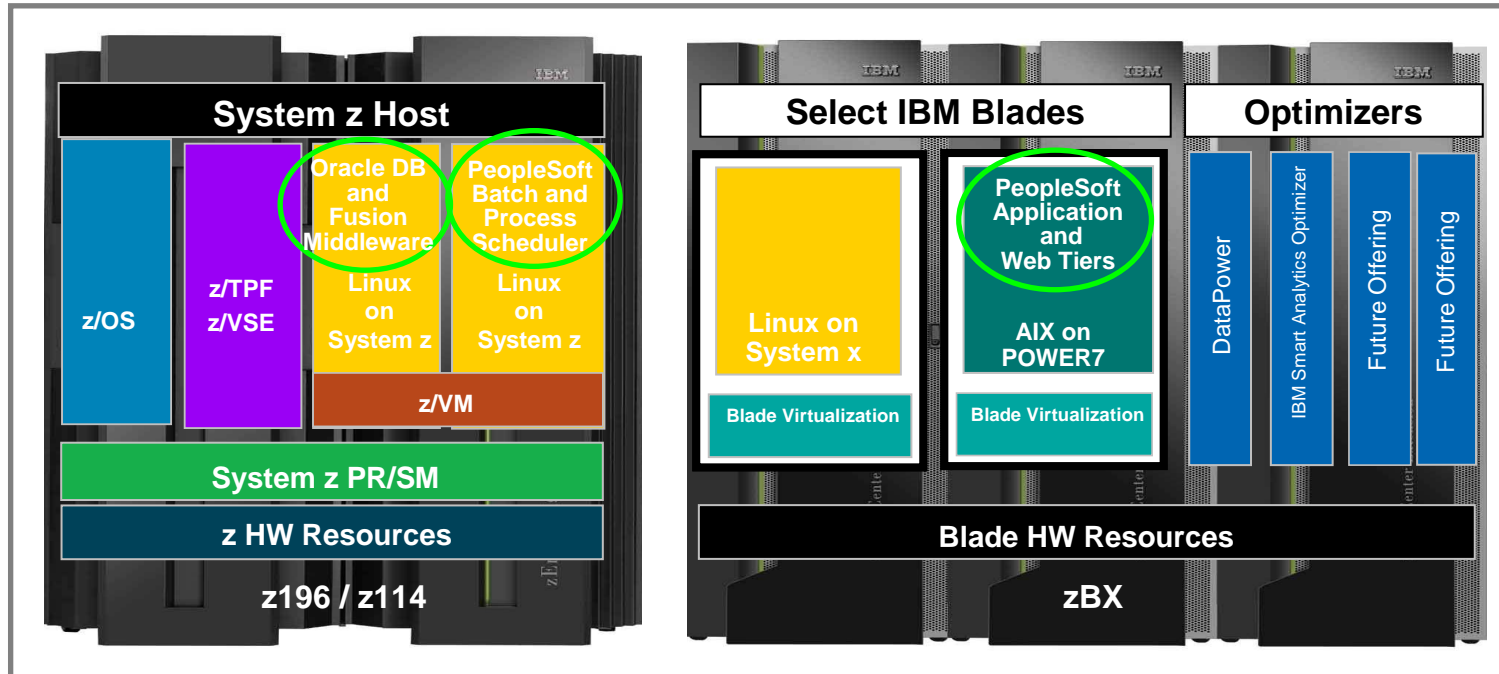 *Multi-Platform "Split Tier" Configuration – Only the Database runs on System z Servers
  Siebel Release Reference:
  Siebel Business Applications v8.1.1.8 - (Does not require MyOracleSupport access) -
  http://docs.oracle.com/cd/E11886_01/V8/CORE/SRSP_81/SRSP_81.pdf

- **Oracle Siebel Public Sector & Retail Version 8.2.2.1***
  Split Tier Running on Oracle DB2 Versions 10gR2 and 11gR2 on Linux on System z
  *Multi-Platform "Split Tier" Configuration – Only the Database runs on System z Servers
  Siebel Release Reference:
  Siebel Public Sector & Retail v8.2.2.1 - (Does not require MyOracleSupport access) -
  http://docs.oracle.com/cd/E11886_01/V8/CORE/SRSP_82/SRSP_822.pdfUpdated

PeopleSoft for Linux deployed on zEnterprise System

System z Host

z/OS	z/TPF z/VSE	Oracle DB and Fusion Middleware	PeopleSoft Batch and Process Scheduler
		Linux on System z	Linux on System z
		z/VM	

System z PR/SM

z HW Resources

z196 / z114

Select IBM Blades

Linux on System x	PeopleSoft Application and Web Tiers
	AIX on POWER7
Blade Virtualization	Blade Virtualization

Optimizers

DataPower | IBM Smart Analytics Optimizer | Future Offering | Future Offering

Blade HW Resources

zBX

PeopleSoft 3-tier architecture on a single zEnterprise System

- Run Oracle database, Fusion Middleware, PeopleSoft Batch and Process Scheduler on the highly available and reliable zEnterprise 196 (z196) or zEnterprise z114 (z114) Server

- Run PeopleSoft Application and Web Tiers with AIX on zEnterprise BladeCenter Extension (zBX)

- Fully benefit from zEnterprise, the first hybrid system, and manage the PeopleSoft multi-tier environment with the zEnterprise Unified Resource Manager

Education/Workshops – WSC

- **LXOR6 (Wildfire Workshops)**
- **Customizing Linux and the Mainframe for Oracle DB Applications**
  - **For clients considering a move of Oracle to Linux on System z**
  - **Topics include hardware technologies, software components, best practices, performance and tuning, performance tools, linux distributions, tools and services for sizing**
  - **Two person teams installing VM, Linux (SUSE or RHEL), and Oracle**

- **No charge, Client Team Registration**
- **Offered in Various Cities across North America**
  - **Chicago, September 25 – 27**
  - **Boston (Waltham), October 23 – 25**
  - **Atlanta, TBD**
- **2.5 days, Attendees responsible for travel expenses**
- **Combination Lectures and Lab Exercises**

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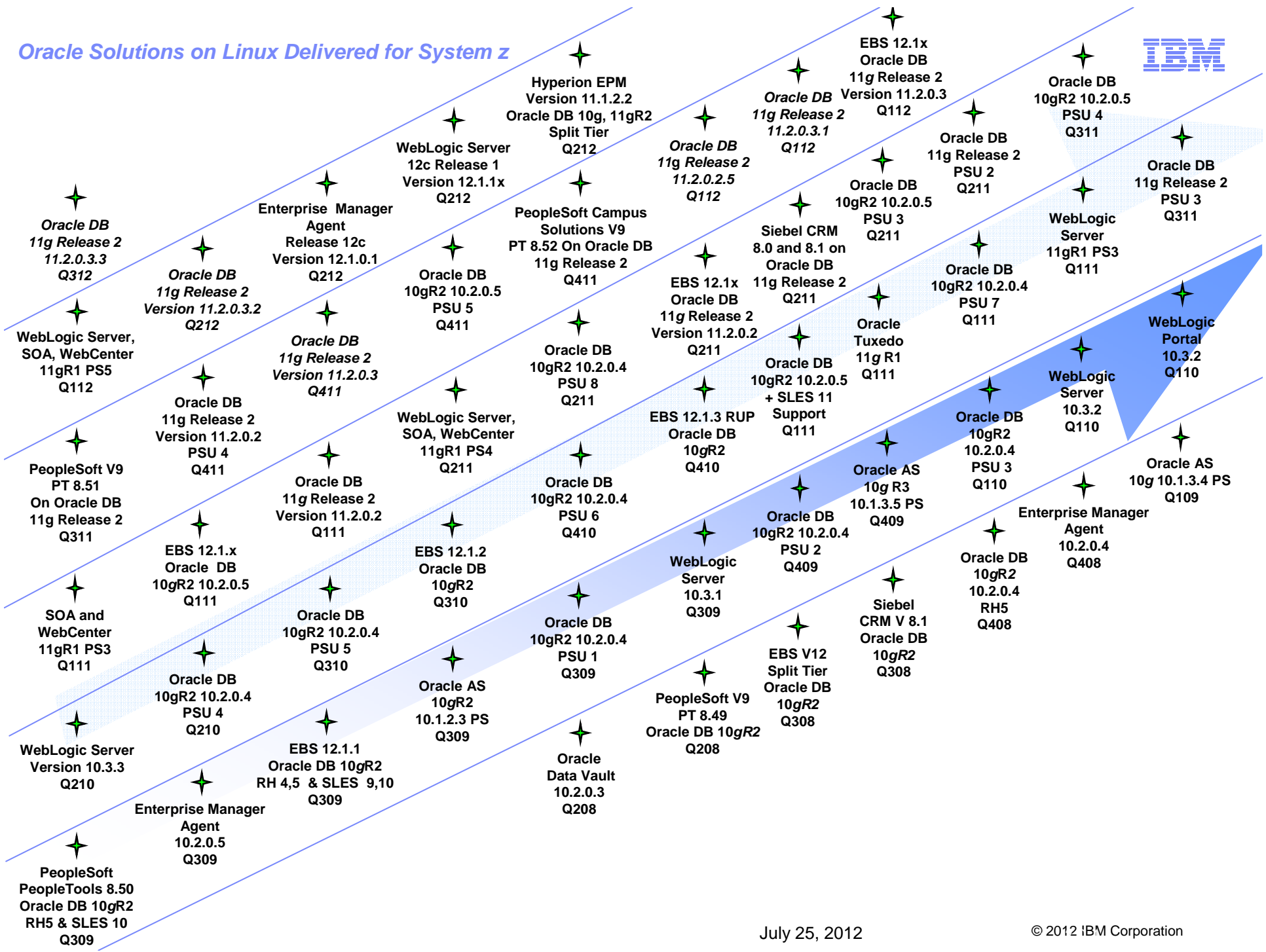
My Oracle Support Communities

- Migration from the older Forum format
- Actively managed and moderated
- Encourages user posts
- Spotlight and highlight posts
- Specific community for System z customers
- Accessed via My Oracle Support (Metalink)
  - support.oracle.com, click on Community, Subscribe to and Click on zSeries Platforms
- Announcements will be made in Community Featured Section !
  - "Webinars" One hour "brownbag" type presentations given by Oracle Support
  - First one December 2010
  - Topic will be ASM
- Join the Oracle zLinux community and help to shape the future:
  - Provide feedback
  - Exchange ideas
  - Get answers
  - Expand networks
  - Share successes

Upcoming Oracle and IBM System z Coverage

- **Oracle OpenWorld (San Francisco, October 2012)**
  - Oracle on Linux on IBM System z
  - PeopleSoft on System z
  - Siebel on IBM System z
  - IBM Booth (Server/System z Ped)

- **SHARE (San Francisco, February 2013)**
  - IBM Oracle Sessions – Installation Experiences and Recommendations
  - Oracle Support for IBM System z
  - User Experiences

- **Oracle Collaborate/zOracle SIG Conference (Denver, April 2013)**
  - Oracle on Linux on System z Sessions
  - zSeries Oracle SIG Sessions
  - Oracle on Linux System z Install Bootcamp

IBM

EBS 12.1x
Oracle DB
11g Release 2
Version 11.2.0.3
Q112

Hyperion EPM
Version 11.1.2.2
Oracle DB 10g, 11gR2
Split Tier
Q212

Oracle DB
10gR2 10.2.0.5
PSU 4
Q311

*Oracle DB
11g Release 2
11.2.0.3.1
Q112*

WebLogic Server
12c Release 1
Version 12.1.1x
Q212

Oracle DB
11g Release 2
PSU 2
Q211

Oracle DB
11g Release 2
PSU 3
Q311

*Oracle DB
11g Release 2
11.2.0.2.5
Q112*

*Oracle DB
11g Release 2
11.2.0.3.3
Q312*

Enterprise Manager
Agent
Release 12c
Version 12.1.0.1
Q212

PeopleSoft Campus
Solutions V9
PT 8.52 On Oracle DB
11g Release 2
Q411

Oracle DB
10gR2 10.2.0.5
PSU 3
Q211

WebLogic
Server
11gR1 PS3
Q111

*Oracle DB
11g Release 2
Version 11.2.0.3.2
Q212*

Siebel CRM
8.0 and 8.1 on
Oracle DB
11g Release 2
Q211

WebLogic Server,
SOA, WebCenter
11gR1 PS5
Q112

Oracle DB
10gR2 10.2.0.5
PSU 5
Q411

*Oracle DB
11g Release 2
Version 11.2.0.3
Q411*

Oracle DB
10gR2 10.2.0.4
PSU 7
Q111

WebLogic
Portal
10.3.2
Q110

EBS 12.1x
Oracle DB
11g Release 2
Version 11.2.0.2
Q211

Oracle DB
10gR2 10.2.0.4
PSU 8
Q211

Oracle
Tuxedo
11g R1
Q111

Oracle DB
11g Release 2
Version 11.2.0.2
PSU 4
Q411

Oracle DB
10gR2 10.2.0.5
+ SLES 11
Support
Q111

WebLogic
Server
10.3.2
Q110

PeopleSoft V9
PT 8.51
On Oracle DB
11g Release 2
Q311

WebLogic Server,
SOA, WebCenter
11gR1 PS4
Q211

EBS 12.1.3 RUP
Oracle DB
10gR2
Q410

Oracle DB
10gR2
10.2.0.4
PSU 3
Q110

Oracle DB
11g Release 2
Version 11.2.0.2
Q111

Oracle DB
10gR2 10.2.0.4
PSU 6
Q410

Oracle AS
10g R3
10.1.3.5 PS
Q409

Oracle AS
10g 10.1.3.4 PS
Q109

EBS 12.1.x
Oracle DB
10gR2 10.2.0.5
Q111

Oracle DB
10gR2 10.2.0.4
PSU 2
Q409

Enterprise Manager
Agent
10.2.0.4
Q408

SOA and
WebCenter
11gR1 PS3
Q111

EBS 12.1.2
Oracle DB
10gR2
Q310

WebLogic
Server
10.3.1
Q309

Oracle DB
10gR2
10.2.0.4
RH5
Q408

Oracle DB
10gR2 10.2.0.4
PSU 5
Q310

Oracle DB
10gR2 10.2.0.4
PSU 1
Q309

Siebel
CRM V 8.1
Oracle DB
10gR2
Q308

Oracle DB
10gR2 10.2.0.4
PSU 4
Q210

Oracle AS
10gR2
10.1.2.3 PS
Q309

EBS V12
Split Tier
Oracle DB
10gR2
Q308

WebLogic Server
Version 10.3.3
Q210

EBS 12.1.1
Oracle DB 10gR2
RH 4,5 & SLES 9,10
Q309

PeopleSoft V9
PT 8.49
Oracle DB 10gR2
Q208

Enterprise Manager
Agent
10.2.0.5
Q309

Oracle
Data Vault
10.2.0.3
Q208

PeopleSoft
PeopleTools 8.50
Oracle DB 10gR2
RH5 & SLES 10
Q309

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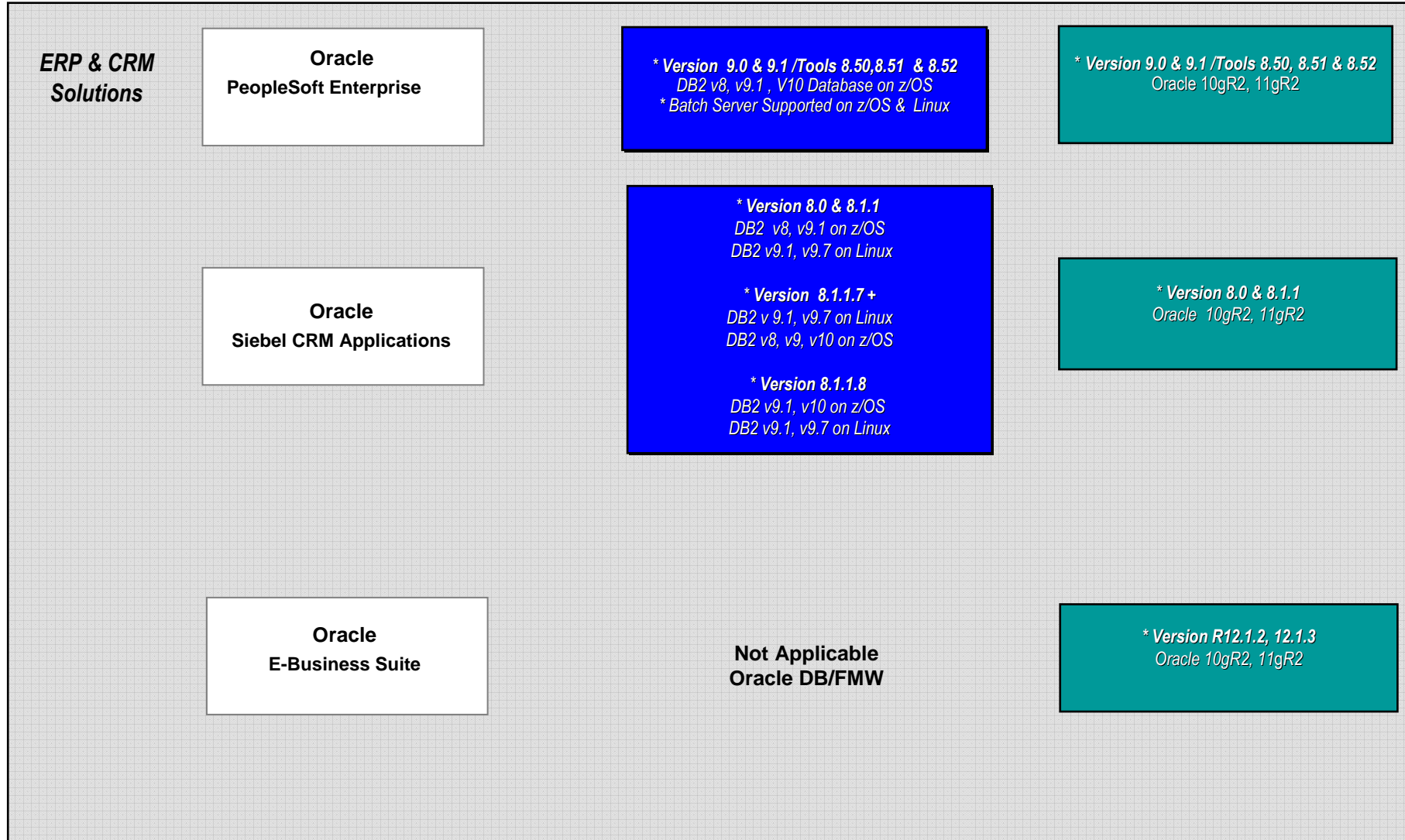© 2012 IBM Corporation

Oracle Applications for System z Servers

IBM Data Server on DB2 z/OS and or Linux*   **Oracle DB Server on Linux**

* Note: Multi-Platform "Split Tier" Configuration – Only the Database runs on System z Servers unless otherwise noted

ERP & CRM Solutions

| Oracle PeopleSoft Enterprise | ** Version 9.0 & 9.1 /Tools 8.50,8.51 & 8.52*
DB2 v8, v9.1 , V10 Database on z/OS
* Batch Server Supported on z/OS & Linux | ** Version 9.0 & 9.1 /Tools 8.50, 8.51 & 8.52*
Oracle 10gR2, 11gR2 |

Oracle Siebel CRM Applications

* Version 8.0 & 8.1.1
DB2 v8, v9.1 on z/OS
DB2 v9.1, v9.7 on Linux

* Version 8.1.1.7 +
DB2 v 9.1, v9.7 on Linux
DB2 v8, v9, v10 on z/OS

* Version 8.1.1.8
DB2 v9.1, v10 on z/OS
DB2 v9.1, v9.7 on Linux

* Version 8.0 & 8.1.1
Oracle 10gR2, 11gR2

Oracle E-Business Suite

Not Applicable Oracle DB/FMW

* Version R12.1.2, 12.1.3
Oracle 10gR2, 11gR2

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Oracle Industry Applications for System z Servers

IBM

<u>*IBM Data Server on DB2 z/OS and or Linux*</u>   <u>*Oracle DB Server on Linux*</u>

* Note: Multi-Platform "Split Tier" Configuration – Only the Database runs on System z Servers unless otherwise noted

Higher Education	Oracle PeopleSoft Campus Solutions	Not planned	•Version 9.0 /Tools 8.50, 8.51. 8.52 Oracle 10gR2, 11gR2

Public Sector	Oracle Siebel Public Sector and Loyalty Management	** Version 8.2.2.1* DB2 v9.1, v10 on z/OS DB2 v9.7 on Linux •Version 8.1.1.8: DB2 v9 , v10 on z/OS DB2 v9.1, 9.7 on Linux on System z	** Version 8.1.1.8, 8.2.2.1* Oracle 10gR2, 11gR2

Insurance and Cross Industry	Oracle Insurance	*Documaker Version 11.5, 12.0* DB2 v8, v9.1 z/OS	Not planned
	Oracle Cross Industry	**Not Applicable Oracle DB/FMW**	*Oracle Policy Automation v10.3* Oracle WebLogic 11gR1 with Oracle DB 11gR2

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Oracle Applications for System z Servers

IBM Data Server on DB2 z/OS and or Linux*   **Oracle DB Server on Linux**

* Note: Multi-Platform "Split Tier" Configuration – Only the Database runs on System z Servers unless otherwise noted

Hyperion Enterprise Performance Management

Oracle Enterprise Performance Management	** Version 11.1.2.2* *DB2 v10 z/OS as Data Source*	** Version 11.1.2.2* *Oracle 10g, Oracle 11gR2* *as Data Source & Repository*
	* Version 11.1.1.4 *DB2 v10 z/OS as Data Source*	Not planned

OBIEE Solutions:

Oracle Business Intelligence Enterprise Edition	** Version 11gR1 v11.1.1.6* *DB2 V9.1, 9.5 Linux on z as Data Source* *DB2 V9.7 Linux on z as Data Source & Repository*	** Version 11gR1 v11.1.1.6* *Oracle 10g (10.2.0.4, 10.2.0.5)* *11g Release 2 (11.2.0.2)* *as Data Source & Repository*
	* Version v10.1.3.4.2 *DB2 v8, 9.1 z/OS as Data Source* *DB2 v9.1, 9.5, DB2 9.7 Linux on z as Data Source*	** Version v10.1.3.4.2* *Oracle 10g (10.2.0.4, 10.2.0.5)* *11g Release 2 (11.2.0.2)* *as Data Source & Repository*

Golden Gate:

Oracle GoldenGate	*Version 11.1.1.1.0 for z/OS* *DB2 v10/9.1/8.1 for z/OS*	*Version 11.1.1.1.0 for Linux on z* *Oracle 10g (10.2.0.4, 10.2.0.5)* *11g Release 2 (11.2.0.2)*

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Oracle Technology Solutions for System z Servers

		Oracle DB Server on z/OS	*Oracle DB Server on Linux*
Database	Oracle Database 10gR2	Oracle DB 10g Release 2 10.2.0.4 Planned 2012 10gR2 10.2.0.5 Terminal Release	Oracle DB 10g Release 2 10.2.0.4, 10.2.0.5
	Oracle Database 11gR2	No	Oracle DB 11g Release 2 11.2.0..2, 11.2.0.3

		Oracle Fusion Middleware on z/OS	*Oracle Fusion Middleware on Linux*
Fusion Middleware 10g	Oracle FMW 10gR2/10gR3 Application Server	Not Applicable Oracle DB/FMW	Oracle Application Server 10gRelease 2 10.1.2.3 10g Release 3 10.1.3.5
Fusion Middleware	Oracle FMW 11gR1	Not Applicable Oracle DB/FMW	WebLogic Server 10.3.5 WebLogic Portal 10.3.2 SOA 11gR1 WebCenter 11gR1 Tuxedo 11gR1
	Oracle FMW 12cR1	Not Applicable Oracle DB/FMW	WebLogic Server 12.1.1x
Enterprise Manager	Oracle Enterprise Manager Agent	Not Applicable Oracle DB/FMW	Oracle Enterprise Grid Control Agent 12c Release 12.1.0.1 10g Release 10.2.0.5

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System z Social Media

- **System z official Twitter handle:**
  - ► **@ibm_system_z**

- **Top Facebook pages related to System z:**
  - ► **Systemz Mainframe**
  - ► **IBM System z on Campus**
  - ► **IBM Mainframe Professionals**
  - ► **Millennial Mainframer**

- **Top LinkedIn Groups related to System z:**
  - ► **Mainframe Experts Network**
  - ► **Mainframe**
  - ► **IBM Mainframe**
  - ► **System z Advocates**
  - ► **Cloud Mainframe Computing**

- **YouTube**
  - ► **IBM System z**

- **Leading Blogs related to System z:**
  - ► **Evangelizing Mainframe (Destination z blog)**
  - ► **Mainframe Performance Topics**
  - ► **Common Sense**
  - ► **Enterprise Class Innovation: System z perspectives**
  - ► **Mainframe**
  - ► **MainframeZone**
  - ► **Smarter Computing Blog**
  - ► **Millennial Mainframer**

Information Sources

- http://www.oracle.com/ibm
  - Oracle IBM Partner Relationship
- http://otn.oracle.com
  - Oracle Select "Downloads"
- http://www.vm.ibm.com/perf/tips
  - General z/VM Performance & Tuning Tips, Capacity planning
- https://support.oracle.com
  - Oracle Support Webpage (My Oracle Support)
- http://www-124.ibm.com/developerworks/oss/linux390/index.shtml
  - Lot's of information on Linux for zSeries, IBM DeveloperWorks
- http://www-128.ibm.com/developerworks/linux/linux390/perf/index.html
  - Hints and Tips for tuning Linux on System z
- http://www.zseriesoraclesig.org
  - Special Interest Group of Oracle users on the mainframe (z/OS and Linux)
- http://www.mail-archive.com/linux-390%40vm.marist.edu/
  - Marist List Server
- http://www.ibm.com/redbooks
  - SG24-6482-00 Experiences with Oracle Database 10g on Linux for zSeries
  - SG24-7191-00 Experiences with Oracle 10gR2 Solutions on Linux for System z
  - SG24-7573-00 Using Oracle Solutions on Linux on System z
  - SG24-7634-00 Experiences with Oracle Solutions on Linux for IBM System z
  - REDP-4788 Installing Oracle 11gR2 RAC on Linux on System z,
  - REDP-9131 Silent Installation Experiences with Oracle Database 11gR2 Real Application Clusters on Linux on System z
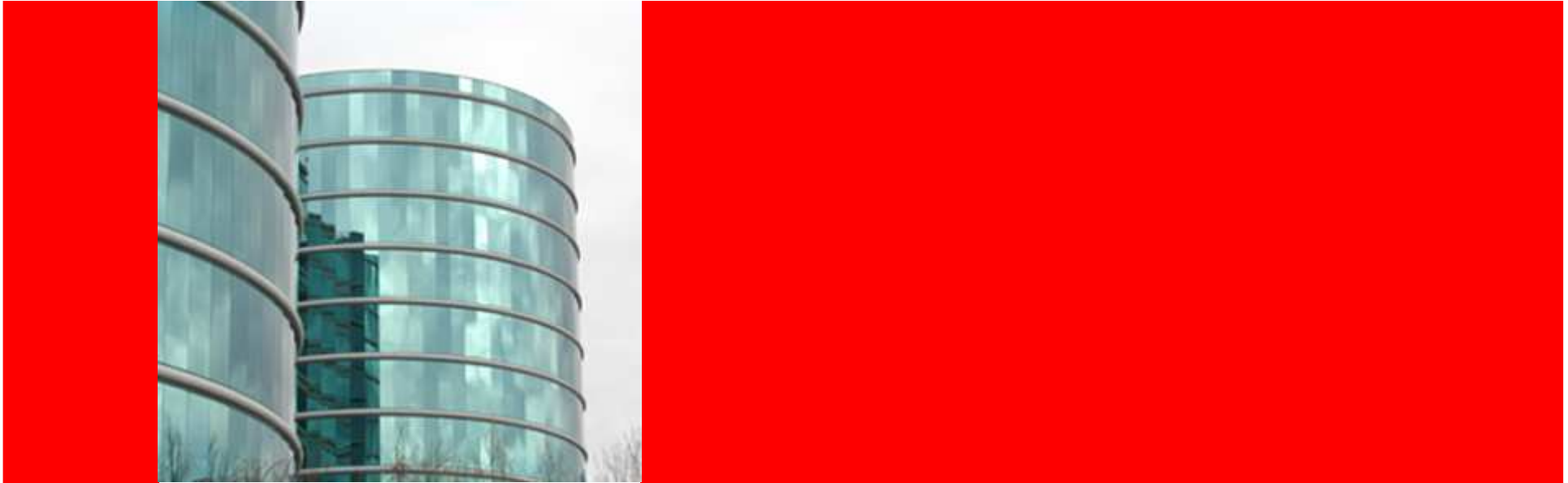
Oracle Support Update for Oracle running on Linux on System z

Kathryn Arrell (IBM) for Rhoda Sarmiento-Pereira
Principal Technical Support Engineer
Mainframe Information Technology Support

Safe Harbor Statement

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decision. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

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Agenda

- Oracle RDBMS on z/Linux
  - Version Availability
  - Product Updates including PSU and CPU
  - Linux Set up
  - Installation Notes
  - Problem Notes
  - Documents to review
  - Oracle Support team
- Q&A

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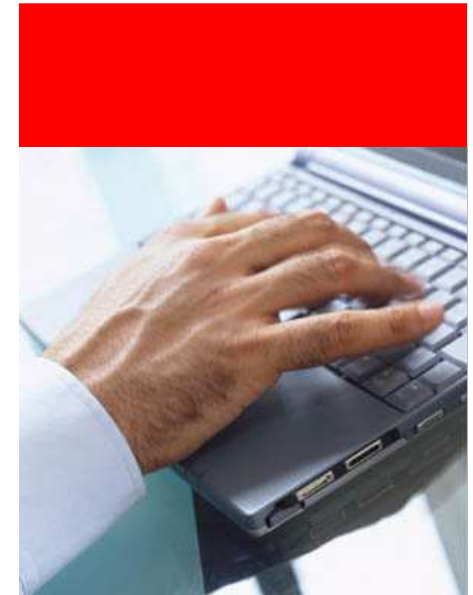
Product Availability

- ## 10.2.x
  - Latest is 10.2.0.5
  - Extended Support fee was waived from August 2010 – July 2012.

- ## 11.2.x
  - Latest is 11.2.0.3
  - Premier Support Ends Jan 2015
  - Extended Support Ends Jan 2018

Supported/Certified Linux on Z

- ## 11.2
  - Certification Information for Oracle Database on IBM Linux on System z [ID 1309988.1]
  - My Oracle Support at support.oracle.com
  - OS versions and minimum levels:

OS	Version	Minimum Update Level	Minimum Kernel Version
Redhat Enterprise Linux	4 (not recommended)	Update 8	2.6.9
	5	Update 4	2.6.18
SUSE Linux Enterprise Server	10	SP3	2.6.16.21
	11	SP1	2.6.27.19

Product Updates (including PSU and CPU)

- 10.2.0.5
    - Latest PSU - Patch 13923855: DATABASE PATCH SET UPDATE 10.2.0.5.8 (INCLUDES CPU JUL2012) 14038805 is the CPU only

- 11.2.0.3
    - Latest PSU - Patch 13923374: DATABASE PATCH SET UPDATE 11.2.0.3.3 (INCLUDES CPU JUL2012)

    - Patch 13919095: GRID INFRASTRUCTURE PATCH SET UPDATE 11.2.0.3.3 (INCLUDES DB PSU 11.2.0.3.3)

Preparing your Linux guest - RPM Checker

- Ensure that you have prerequisite RPMs to install Oracle Database on Linux on IBM System z (s390x), see note ID 1086769.1
    - RPM Checker script is designed to reduce the installation issues caused by having incomplete/incorrect packages installed – the documentation and installation notes are a little confusing, supplying as they do a list of packages.
    - Vendors don't help by changing the way functions are packaged or provided – even in service packs
    - Doesn't install any code
    - Be sure to get the latest as the RPM checker via MOS is updated as needed, and should always be current

    - For Oracle Real Application Clusters use cluster verify script

    - For Linux use IBM's Linux Health Check

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Installation notes

- A recent trend with install problems that originates from installing too many RPMs.
  - For example: installing your own JDK version (prior to beginning the Oracle Software runInstaller) is not needed on Linux, and is not recommended on Linux. A pre-existing JDK often interferes with the correct JDK that the Linux Oracle Software runInstaller will place and use - usually because only the 64-bit JDK has been installed, and OUI needs the 31-bit.

  - No extra patch is required for the DIRECTIO support for zLinux.
    - Other platforms require a patch for DIRECTIO support

Installation Notes

- You may receive the following message:
- "Checking monitor: must be configured to display at least 256 colors >>> Could not execute auto check for display colors using command /usr/X11R6/bin/xdpyinfo. Check if the DISPLAY variable is set. Failed <<<<"
- This can be corrected by adding a symbolic link as follows: " ln -s /usr/bin/xdpyinfo /usr/X11R6/bin/xdpyinfo"

- You may receive the following WARNING - "libxcb: WARNING! Program tries to lock an already locked connection..." this can be safely ignored. You may also receive this WARNING when running dbca, netca.

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11.2 Installation Notes

Storage requirements:

- Disk space
- 5.5 GB Oracle Grid Infrastructure for a Grid Home for Cluster and ASM Home 1GB /tmp directory.
- 4.6 GB database software.
- 1.7 GB of disk space for a preconfigured database that uses file system storage (optional)

Memory requirements

- OUI and manuals insist on 4GB
- Since Linux reserves 64Mb, even if you have 4GB, the OUI will still complain requiring an override of the OUI checks
- However, will still install in 2GB or less – we're doing tests to determine the actual limits and will update the MOS notes when complete

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11.2 Installation Notes

- ASMlib available for Red Hat 5.6 – refer to My Oracle Support Note: Oracle ASMLIB - Support for RedHat Enterprise Linux 5 AS on IBM zSeries [ID 821652.1]
- Library and tools from Oracle Technet
- Kernel driver availability differs:
- Ships with SuSE 11 on DVD1

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More My Oracle Support Notes

- Note 1306465.1 - Getting Started - 11*g*R2 Grid Infrastructure, ASM and DB (IBM: Linux on System z)

- Note 1290644.1 - Requirements for Installing Oracle 11*g*R2 on SLES11 on IBM: Linux on System z (s390x)
  - OHASD fails to start on SuSE 11 SP2 on IBM: Linux on System z [ID 1476511.1]

- Note 1306889.1 - Requirements for Installing Oracle 11*g*R2 on RHEL 5 on IBM: Linux on System z (s390x)

- Note 1308859.1 - Requirements for Installing Oracle 11*g*R2 RDBMS on SLES 10 SP3 on IBM: Linux on System z (s390x)

- Note 169706.1 - Oracle Database on Unix AIX,HP-UX,Linux,Mac OS X,Solaris,Tru64 Unix Operating Systems Installation and Configuration Requirements Quick Reference

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Product notes

- 11gR2 on Linux on Z is a full product – all the standard features are included - Real Application Testing, for example.
- Oracle Messaging Gateway fully supported

- Use new Oracle Grid Agent 12c for Monitoring database instances
  - Install OMS 12c Cloud Control on AIX or Linux x86 (needs patch bundle 1) and connect with the new 12C agent

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Problems to be aware of when installing/upgrading to 11.2.0.3

- Missing LIBSTDC++-33-3.2.3-47.3 causing installer to fail
  - Prereq check fails in Grid installation about missing rpm compat-libstdc++-33.3.2.3-47.3 (or not installed)
  - What to do:
    - Ignore but need to make sure that all rpm pre-requisites are met.
    - The following notes will help in this problem:
      - 11.2.0.3 PREREQ CHECK WARNING FOR MISSING compat-libstdc++-33.3.2.3-47.3 ON IBM: LINUX ON SYSTEM Z ON SLES 11 **(Doc ID 1383381.1**)

      - Getting Started - 11gR2 Grid Infrastructure,SI(Single Instance), ASM and DB (IBM: Linux on System z) Doc ID 1306465.1

      - Ensure you have prerequisite rpms to install Oracle Database and AS10g(midtier) on IBM: Linux on System z (s390x) (**Doc ID 1086769.1)**

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Common Problems when installing/upgrading to 11.2.0.3

- **DASD STORAGE DEVICE with a SOFT LINK**
  - This is another show stopper when installing 11.2.0.3
  - This is important as ASMLib is becoming less useful with Linux disk management evolves.
  - The problem occurs when ECKD/DASD devices are configured ➔ which is necessary for device persistence and easy manipulation/selection of ASM devices
  - This is only applicable for multiple nodes, single node still works fine
  - REFERENCES:

- **BUG 13497268** - GRID INSTALL HANGS AT 75% WHEN USING DASD STORAGE DEVICE WITH A "SOFT LINK"

- How to Manually Configure Disk Storage devices for use with Oracle ASM 11.2 on IBM: Linux on System z under SLES (**Doc ID 1350008.1**)

Problems to be aware of when installing/upgrading to 11.2.0.3

- UPGRADING from 10g to 11g
    - **Bug 5100163 -** ASM diskgroup created in 10g can have unformatted blocks - may become unmountable
    - Discussed in detail ➔ Doc ID 5100163.8

- OPATCH AUTO availability
    - OPATCH AUTO is not yet supported on z/Linux
    - It will be available soon

    - **BUG 13722527 -** OPATCH AUTO FUNCTIONALITY NOT AVAILABLE IN 11.2.0.1.9 VERSION ON IBM: ZLINUX

USEFUL NOTES

- **Document 1345364.1** ORA-00445: Background Process "xxxx" Did Not Start After 120 Seconds

- **Document 1350008.1** How to Manually Configure Disk Storage devices for use with Oracle ASM 11.2 on IBM: Linux on System z under SLES

- **Document 1351746.1** How to Manually Configure Disk Storage devices for use with Oracle ASM 11.2 on IBM: Linux on System z under RedHat 5

- **Document 1376691.1** Composite Patches for Oracle Products

USEFUL Redpapers and recent notes

- **IBM Redpaper Installing Oracle 11gR2 RAC on Linux on System z, REDP-4788**
  http://www.redbooks.ibm.com/abstracts/redp4788.html?Openhttp://www.redbooks.ibm.com/abstracts/redp4788.html?Open

- **IBM Redpaper Silent Installation Experiences with Oracle Database 11gR2 Real Application Clusters on Linux on System z**
  http://www.redbooks.ibm.com/redpapers/pdfs/redp9131.pdf

- **IBM Redbook Experiences with Oracle Solutions on Linux for IBM System z**
  http://www.redbooks.ibm.com/abstracts/sg247634.html?Open

- **Recent My Oracle Support notes**
  - **How to remove 11.2 Grid Infrastructure, CRS and/or Oracle Restart - IBM: Linux on System z, ID 1413787.1**
  - **How to remove 11.2 Grid Infrastructure, CRS and/or Oracle Restart - IBM: Linux on System z, ID 1413787.1**
  - **How to Clone an 11.2 Grid Infrastructure Home and Clusterware - IBM: Linux on System z, ID 1413846.1**
  - **How to Configure or Reconfigure Grid Infrastructure with config.sh/config.bat, ID 1354258.1**

A Great Support Team – Dedicated to Linux on IBM System z

- Support specialist organization for Linux on Z
  - Dedicated support specialist for z
  - Make sure your Service Request gets in the z queue
- ZLUG – UK based user group Oracle regularly attends
- Zseriesoraclesig.org
- Communities

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Update on Running Oracle Solutions on Linux on System z and how to best utilize the Oracle Support Structure when running on Linux on System z

Gaylan Braselton, IBM

Rhoda Sarmiento, Oracle

Thursday August 9, 2012

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