



## Technical Notes IBM Oracle International Competency Center (ICC)

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### **Hints & Tips for Installing Oracle 11g Release 2 on Linux on IBM System z**

This Technical Note is based on our experiences in installing Oracle 11g Release 2 Database on Linux on System z.

#### **1. OS versions supported (minimum levels)**

Red Hat RHEL5 (update 4 or later) - Note: Red Hat 4 U8 is supported but RH5 recommended  
SUSE SLES10 (SP3)  
SUSE SLES11 (SP1)

#### **2. Documentation**

These Oracle documents can be found at:

[http://www.oracle.com/pls/db112/portal.portal\\_db?selected=11&frame=Database Client Quick Installation Guide for IBM: Linux on System z -E18190](http://www.oracle.com/pls/db112/portal.portal_db?selected=11&frame=Database%20Client%20Quick%20Installation%20Guide%20for%20IBM%3A%20Linux%20on%20System%20z%20-E18190)  
[Database Quick Installation Guide for IBM: Linux on System z -E18182](#)  
[Oracle® Database Release Notes 11g Release 2 \(11.2\) for Linux - E16778-09](#)  
[Grid Infrastructure for Linux -E17212- 11](#)  
[Oracle® Real Application Clusters Installation Guide – E17214](#)

#### **3. Disk and Memory Set up Recommendations**

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)

Temporary disk space

400 MB

Paging/swap space

4 GB or match RAM, whichever is higher

Memory and swap space (note: Linux on VM reserves 64 Mb so Oracle will see less than full allocation)

RAM

Swap Space



Between 4 GB and 8 GB 2 x RAM  
Between 8 GB and 32 GB 1.5 x RAM  
Greater than 32 GB 32 GB

Note: you can run with less RAM and Swap but will get warning messages and will have to click ignore.

**4. My Oracle Support (a userid and password are required to access this website)  
These notes, especially the requirements notes should be reviewed in detail before  
installation of 11gR2.**

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

1290644.1 - Requirements for Installing Oracle 11gR2 on SLES11 on IBM: Linux on System z (s390x)

1306889.1 - Requirements for Installing Oracle 11gR2 on RHEL 5 on IBM: Linux on System z (s390x)

1308859.1 - Requirements for Installing Oracle 11gR2 RDBMS on SLES 10 SP3 on IBM: Linux on System z (s390x)

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

169706.1 - Oracle Database on UNIX AIX, HP-UX, Linux, Mac OS X, Solaris, Tru64 UNIX Operating Systems Installation and Configuration Requirements Quick Reference (8.0.5 to 11.2)

**5. RPM Checker information that will be available**

Oracle has created an rpm - "Oracle Validate RPM <Platform> <Version> which when installed uses dependencies to ensure you have installed the required rpms.

The rpm itself is a 'dummy' rpm and does not contain any modules - it is a dependency checker only.

Download the correct ora-val-rpm and unzip it.

For example, as root user install the rpm e.g. on Red Hat 5.2 zLinux Server:-

```
#rpm -ivh ora-val-rpm-EL5-DB-10.2.0.4-1.s390x.rpm
```

To remove the rpm

```
#rpm -e ora-val-rpm-EL5-DB-10.2.0.4-1.s390x
```

The three new files are:

ora-val-rpm-SL11-DB-11.2.0.2-1.s390x.zip - for SuSE 11 SP1

ora-val-rpm-EL5-DB-11.2.0.2-1.s390x.zip - for Red Hat 5 Update 4

ora-val-rpm-SL10-DB-11.2.0.2-1.s390x.zip - for SuSE 10 SP3

Should the Oracle Validate RPM find any missing rpms and you are connected to a yum server then the rpm will attempt to install these missing rpms.

The Oracle Validate RPM validates against the "Minimum" version of a required rpm. If you have a later version of the rpm this will satisfy the Oracle Validate RPM checker.



## 6. ASMLib Information

### Red Hat

There are 3 files required for ASMLib, two of which are located at [oss.oracle.com](http://oss.oracle.com)

- <http://www.oracle.com/technetwork/topics/linux/downloads/rhel5-084877.html>
- Library and Tools
- `oracleasm-support-2.1.3-1.el5.s390x.rpm`
- `oracleasm-lib-2.0.4-1.el5.s390x.rpm`

There is a third one that needs to match the kernel level that you are using that is available from Oracle Support

See My Oracle Support Note: Oracle ASMLIB - Support for Red Hat Enterprise Linux 5 AS on IBM zSeries [ID 821652.1]

### SLES 11

There are 3 files required for ASMLib, two of which are located at [oss.oracle.com](http://oss.oracle.com)

<http://www.oracle.com/technetwork/topics/linux/downloads/sles11-099661.html>

- Library and Tools
- `oracleasm-support-2.1.3-1.SLE11.s390x.rpm`
- `oracleasm-lib-2.0.4-1.sle11.s390x.rpm`
- There is a third one that needs to match the kernel level that you are using that is shipped by Novell (on DVD 1)

## 6. Oracle Enterprise Manager

If you use Grid Control (OMS) 10.2.0.5 and Grid Agent 10.2.0.5 you can monitor a 11.2.0.2 database . See My Oracle Support note 953846.1 Grid Control 10.2.0.5.0 now Supports DB 11.2.0. You can use the DB Console support as a option.

## 7. SE Linux on Red Hat

By default, RHEL 5 IBM:Linux on System z (S390x) is installed with SELinux as "enforcing". This can cause the 11gR2 installation process to fail with this error "Failed to find VM". Also subsequently it can cause "sqlplus" to fail. The solution is to switch SELinux to the "Permissive" mode. See NOTE 454196.1, ". /sqlplus: error on libnzn11.so: cannot restore segment prot after reloc" for more details. There is also an IBM note on this at:

<http://www-01.ibm.com/support/docview.wss?uid=swg21269147>

Please send an e-mail to the IBM Oracle International Competency Center at [ibmoracl@us.ibm.com](mailto:ibmoracl@us.ibm.com) with any questions you may have on this topic.