

Oracle Database 11gR2 (11.2.0.4) on SUSE Linux Enterprise Server 12 SP3

(how-to install)

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Introduction

This document is not a replacement of official Oracle install document, but to help you understand minor difference you may encounter while installing Oracle Database on SUSE Linux Enterprise Server 12 SP3. This document covers x86_64 version but installation steps are same for other platforms. We will use latest certified versions of Oracle Database Enterprise version 11gR2 (11.2.0.4).

Oracle Software

Oracle Database Enterprise version 11.2.0.4 (Patch Set) is complete release and available via Oracle Support web site (<http://support.oracle.com>).

Official Oracle Documents are available at https://docs.oracle.com/cd/E18283_01/index.htm

SUSE Software

SUSE Linux Enterprise Server 12 SP3: <https://www.suse.com/products/server/download/>

Installation

Install **SUSE Linux Enterprise Server 12 SP3** OS with “**Oracle Server Base**” pattern. You can follow official Oracle Installation manual for selective required rpms.



```
oracle@sles12-sp3:~  
File Edit View Search Terminal Help  
oracle@sles12-sp3:~> uname -a  
Linux sles12-sp3 4.4.73-5-default #1 SMP Tue Jul 4 15:33:39 UTC 2017 (b7ce4e4)  
x86_64 x86_64 x86_64 GNU/Linux  
oracle@sles12-sp3:~> env |grep ORA  
ORACLE_SID=orcl  
ORACLE_BASE=/opt/oracle  
ORACLE_HOME=/opt/oracle/product/11gR2/db  
oracle@sles12-sp3:~> cat /etc/os-release  
NAME="SLES"  
VERSION="12-SP3"  
VERSION_ID="12.3"  
PRETTY_NAME="SUSE Linux Enterprise Server 12 SP3"  
ID="sles"  
ANSI_COLOR="0;32"  
CPE_NAME="cpe:/o:suse:sles:12:sp3"  
oracle@sles12-sp3:~> □
```

Installing Oracle Database 11.2.0.4

Following are brief steps to follow if you are familiar with Oracle Universal Installer:

1. Download Oracle database 11.2.0.4 SW (p13390677_112040_Linux-x86-64_1of7 & p13390677_112040_Linux-x86-64_2of7) & unzip locally.
2. Make sure Server is assigned static IP address.
3. Set **CV_ASSUME_DISTID=SUSE11** in database/stage/cvu/cv/admin/cvu_config

Note:

- i. Oracle Database 11gR2 is released prior to SLES12, you don't need to perform this in newer Oracle database release (i.e. 12cR2).
 - ii. You can use **"-ignoreSysPrereqs"** If SUSE Linux is not recognized by OUI.
4. Start Oracle Installer: database/runInstaller

Oracle Database 11g Release 2 Installer - Installing database - Step 1 of 11

Configure Security Updates

Provide your email address to be informed of security issues, install the product and initiate configuration manager. [View details.](#)

Email:


Easier for you if you use your My Oracle Support email address/username.

I wish to receive security updates via My Oracle Support.

My Oracle Support Password:

Oracle Database 11g Release 2 Installer - Installing database - Step 2 of 11

Download Software Updates



Download software updates for this installation. Software updates consist of recommended updates to the installer system requirement checks, PatchSet Updates (PSUs), and other recommended patches.

Select one of the following options:

- Use My Oracle Support credentials for download
 - My Oracle Support user name:
 - My Oracle Support password:
 -
- Use pre-downloaded software updates
 - Location:
- Skip software updates

Oracle Database 11g Release 2 Installer - Installing database - Step 3 of 10

Select Installation Option




Select any of the following install options.

Note: If you want to upgrade an existing Oracle Database 11g Release 2 instance select "Upgrade an existing database" option.

- Create and configure a database
- Install database software only
- Upgrade an existing database

Oracle Database 11g Release 2 Installer - Installing database - Step 4 of 9

System Class



Desktop Class
Choose this option if you are installing on a laptop or desktop class system. This option includes a starter database and allows minimal configuration.


Server Class
Choose this option if you are installing on a server class system, which Oracle defines as a system used in a production data center. This option allows for more advanced configuration options.

Configure Security Updates
Download Software Updates
Installation Option
System Class
Typical Installation
Prerequisite Checks
Summary
Install Product
Finish

Help < Back Next > Install Cancel

Oracle Database 11g Release 2 Installer - Installing database - Step 5 of 11

Grid Installation Options



Select the type of database installation you want to perform.

Single instance database installation

Oracle Real Application Clusters database installation

Oracle RAC One Node database installation

Configure Security Updates
Download Software Updates
Installation Option
System Class
Grid Installation Options
Install Type
Typical Installation
Prerequisite Checks
Summary
Install Product
Finish

Help < Back Next > Install Cancel

Oracle Database 11g Release 2 Installer - Installing database - Step 6 of 11

Select Install Type

ORACLE DATABASE 11g

- Configure Security Updates
- Download Software Updates
- Installation Option
- System Class
- Grid Installation Options
- Install Type**
- Typical Installation
- Prerequisite Checks
- Summary
- Install Product
- Finish

Typical install
Perform full Oracle Database installation with basic configuration.

Advanced install
Allows advanced selections such as different passwords for the SYS, SYSMAN, SYSTEM and DBSNMP accounts, database character set, product languages, automated backups, custom installation, and alternative storage options such as Oracle Automatic Storage Management.

Help < Back Next > Install Cancel

Oracle Database 11g Release 2 Installer - Installing database - Step 7 of 11

Typical Install Configuration

ORACLE DATABASE 11g

- Configure Security Updates
- Download Software Updates
- Installation Option
- System Class
- Grid Installation Options
- Install Type
- Typical Installation**
- Prerequisite Checks
- Summary
- Install Product
- Finish

Perform full Database installation with basic configuration.

Oracle base: /opt/oracle

Software location: /opt/oracle/product/11gR2/db

Storage Type: File System

Database file location: /opt/oracle/oradata

ASMSNMP Password:

Database edition: Enterprise Edition (4.7GB)

OSDBA Group: dba

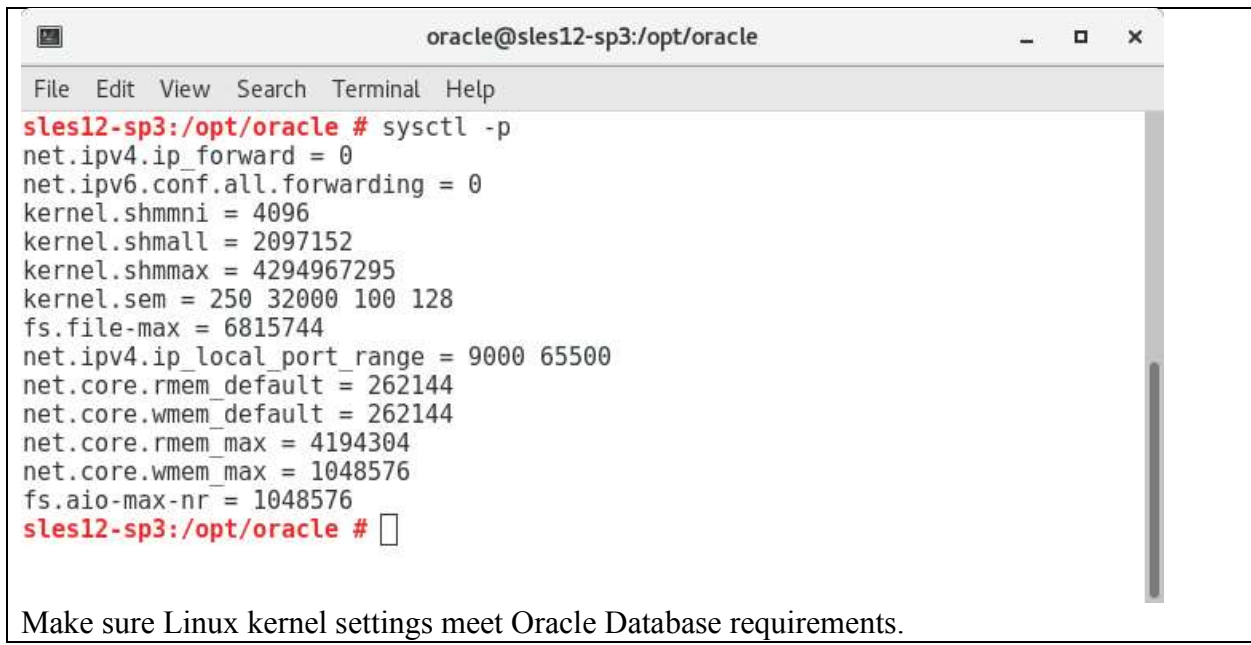
Global database name: orcl.suse

Administrative password:

Confirm Password:

Service Name:

Help < Back Next > Install Cancel



Oracle Database 11g Release 2 Installer - Installing database - Step 9 of 12

Perform Prerequisite Checks

Some of the minimum requirements for installation are not completed. Review and fix the issues listed in the following table, and recheck the system.

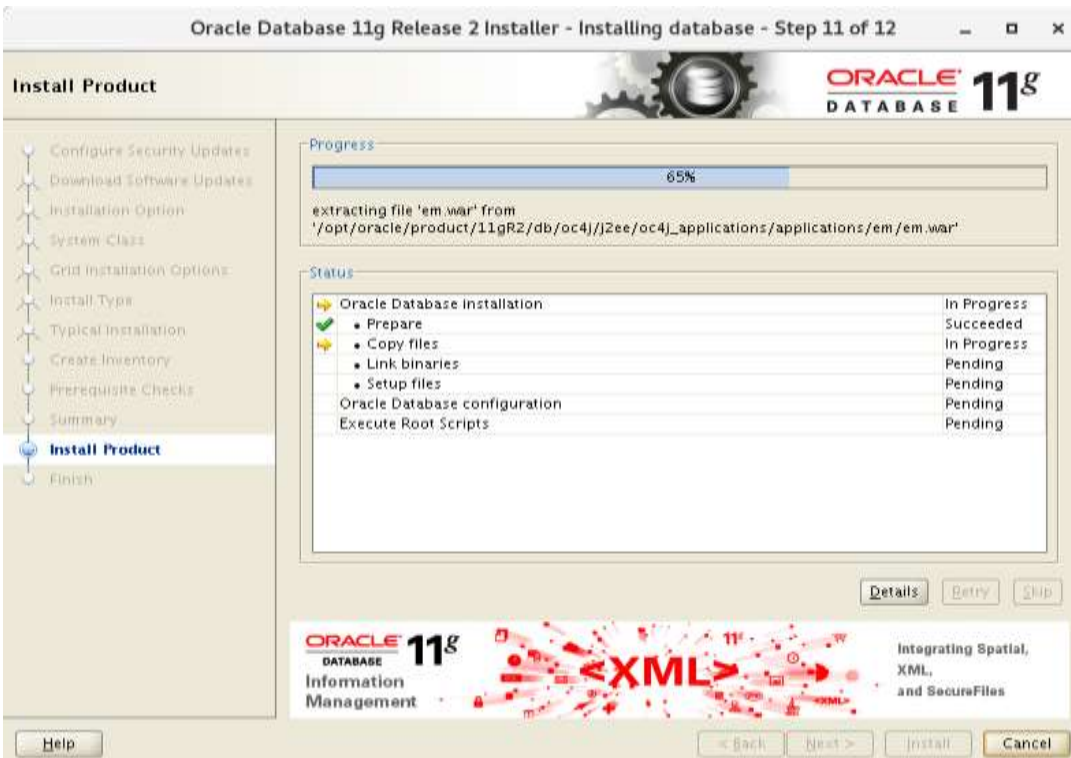
Checks	Status	Fixable
<ul style="list-style-type: none"> Package: libaio-0.3.104 Package: ksh-93t Package: libstdc++33-3.3.3 Package: libstdc++43-devel-4.3.3_20081022 Package: libstdc++46-4.6.1_20110701 Package: libgcc46-4.6.1_20110701 	Ignored	No

This is a prerequisite condition to test whether the package "libaio-0.3.104" is available on the system. [more details](#)
 Expected Value : libaio-0.3.104
 Actual Value : missing

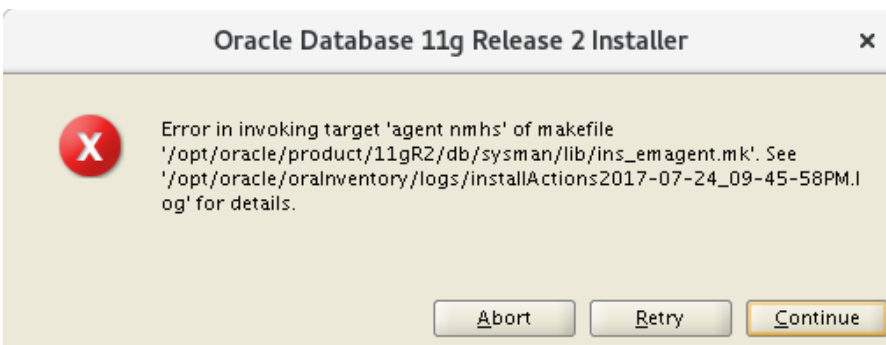
Oracle Database 11g Release 2 Installer - Installing database - Step 10 of 12

Summary

- Oracle Database 11g Release 2 Installer
 - Global settings
 - Disk space: required 4.7 GB available 29.76 GB
 - Source location: /opt/oracle/SW/11204/database/install/./stage/products.xml
 - Install method: Typical installation
 - Database edition: Enterprise Edition (Create and configure a database)
 - Oracle base: /opt/oracle
 - Software location: /opt/oracle/product/11gR2/db
 - Privileged Operating System Groups: dba (OSDBA), dba (OSOPER)
 - Inventory information
 - Inventory location: /opt/oracle/orainventory
 - orainventory group: oinstall
 - Database information
 - Configuration: General Purpose / Transaction Processing
 - Global database name: orcl.suse
 - Oracle system identifier (SID): orcl
 - Allocated memory: 12775 MB



Linking Error - "ins_emagent.mk" - Fix & Retry

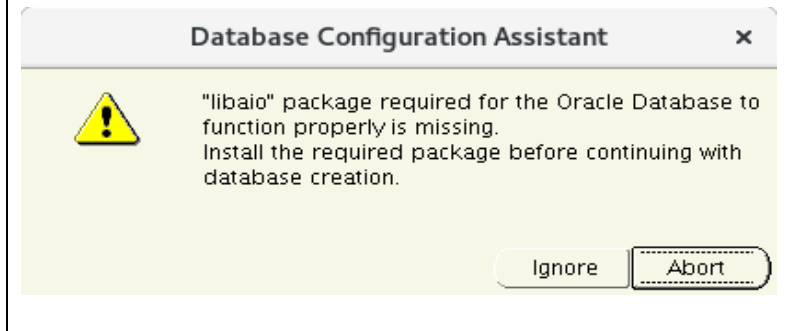


To solve this problem do following changes as user Oracle:

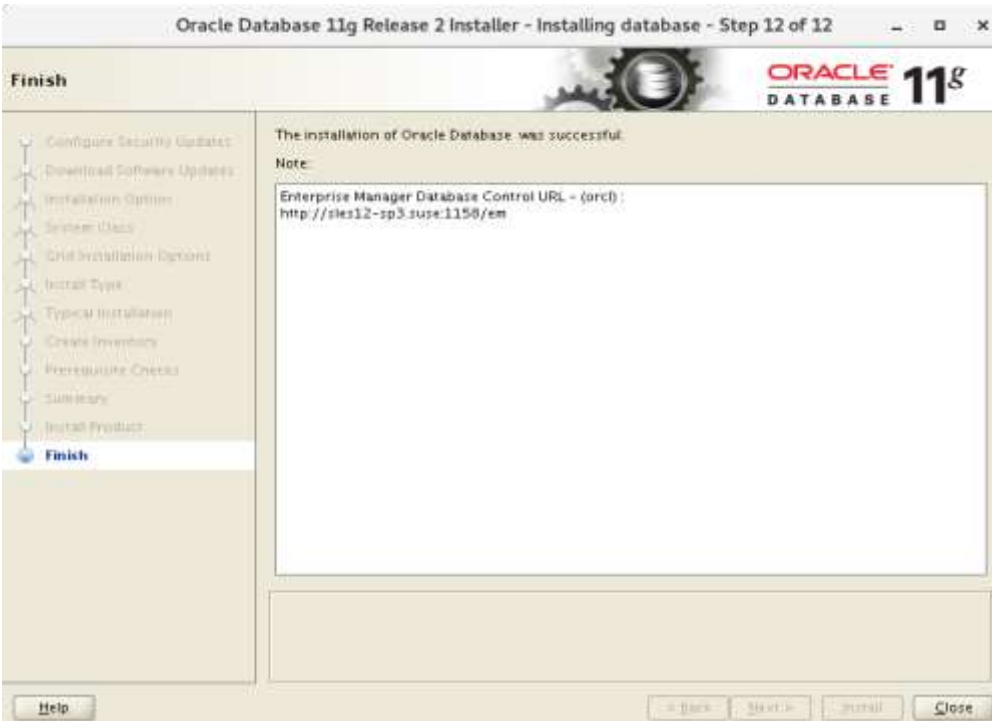
Edit \$ORACLE_HOME/sysman/lib/ins_emagent.mk, search for the line \$(MK_EMAGENT_NMECTL) and replace the line with \$(MK_EMAGENT_NMECTL) -lnnz11

```
oracle@sl12:~/product/11gR2/db/sysman/lib> diff ins_emagent.mk ins_emagent.mk.bak
176c176
< $(MK_EMAGENT_NMECTL)
---
> $(MK_EMAGENT_NMECTL) -lnnz11
oracle@sl12:~/product/11gR2/db/sysman/lib>
```

dbca - libaio missing – Ignore



Installation is complete:



Verify Oracle Database is installed & running correctly using sqlplus:

```
oracle@sles12-sp3:-
File Edit View Search Terminal Help
oracle@sles12-sp3:-> sqlplus / as sysdba

SQL*Plus: Release 11.2.0.4.0 Production on Mon Jul 24 22:29:17 2017
Copyright (c) 1982, 2013, Oracle. All rights reserved.

Connected to:
Oracle Database 11g Enterprise Edition Release 11.2.0.4.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options

SQL> show sga

Total System Global Area 4275781632 bytes
Fixed Size                2260888 bytes
Variable Size             905970568 bytes
Database Buffers         3355443200 bytes
Redo Buffers              12107776 bytes
SQL> exit
Disconnected from Oracle Database 11g Enterprise Edition Release 11.2.0.4.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options
oracle@sles12-sp3:-> █
```

Edit /etc/oratab & /etc/sysconfig/oracle to set start of Oracle Database on reboot.

Oracle Enterprise Manager:

The screenshot displays the Oracle Enterprise Manager (OEM) console interface for a database instance named 'orcl.suse'. The browser address bar shows the URL: `http://192.168.1.15:1158/em/console/database/instance/sitemap?event=doLoad&target=orcl.suse&ty`. The page title is 'Oracle Enterprise Manager (SYS) - Database Instance: orcl.suse - Mozilla Firefox'. The Oracle logo and 'Enterprise Manager 11g Database Control' are visible at the top left. The user is logged in as 'SYS'. The main navigation bar includes 'Home', 'Performance', 'Availability', 'Server', 'Schemas', 'Data Movement', and 'Software and Support'. The current page is 'Database Instance: orcl.suse', with a 'Refresh' button and 'View Data' options. The 'General' section shows the instance status as 'Up', with 'Up Since' on Jul 24, 2017 10:17:25 PM PDT. Other details include Instance Name 'orcl', Version '11.2.0.4.0', Host 'sles12-sp3.suse', and Listener 'LISTENER_sles12-sp3.suse'. Performance metrics include Host CPU (Load 1.05, Paging 0.00), Active Sessions (Wait, User I/O, CPU), and SQL Response Time (Reference collection is not available). The 'Diagnostic Summary' section shows 'No ADDM run available' and 'No ORA_error'. The 'Space Summary' section shows 'Database Size (GB) Unavailable', 'Problem Tablespaces 0', 'Segment Advisor Recommendations Details', 'Policy Violations 0', and 'Dump Area Used (%) Unavailable'. The 'High Availability' section shows 'Oracle Restart n/a', 'Instance Recovery Time (sec) 20', 'Last Backup n/a', 'Usable Fast Recovery Area (%) 100', and 'Flashback Database Logging Disabled'. The 'Alerts' section shows 'Category All', 'Critical 0', and 'Warning 0'. The 'Policy Violations' section shows 'All', 'Critical Rules Violated 0', and 'Critical Security Patches 0'. The 'Job Activity' section shows 'Jobs scheduled to start no more than 7 days ago', 'Scheduled Executions 0', 'Running Executions 0', 'Suspended Executions 0', and 'Problem Executions 0'.

Thank you for selecting **SUSE Linux Enterprise Server** as your Linux platform of choice.