

# ORACLE静默安装

## 1. ORACLE的安装

### 1.1. 安装准备

#### 1.1.1. Linux建立 oracle 用户

添加用户组及用户

```
groupadd dba
```

```
groupadd oinstall
```

```
useradd oracle -g oinstall -G dba
```

`passwd oracle` 设置用户 oracle 的登录密码，根据提示输入两次密码

#### 1.1.2. 在 home 目录新建 Oracle 目录权限

```
cd /home
```

```
mkdir oracle
```

```
[root@jianhan2 home]# cd /home
[root@jianhan2 home]# mkdir oracle
[root@jianhan2 home]# ls
h  jdk  lost+found  mongodb  oracle  soft  tomcat
[root@jianhan2 home]#
```

### 1.1.3. 赋执行权限

```
chown -R oracle:dba /home/oracle
```

```
chmod -R 755 /home/oracle
```

```
[root@jianhan2 home]# chown -R oracle:dba /home/oracle
[root@jianhan2 home]# chmod -R 755 /home/oracle
[root@jianhan2 home]#
```

### 1.1.4. 解压 oracle 的安装文件

```
unzip linux.x64_11gR2_database_1of2.zip -d /home/oracle/
```

```
unzip linux.x64_11gR2_database_2of2.zip -d /home/oracle/
```

### 1.1.5. 设置环境变量关闭防火墙

```
vi /home/oracle/.bash_profile # 在最后添加以下代码
```

```
export ORACLE_BASE=/home/oracle/app #oracle 数据库安装目录
```

```
export ORACLE_HOME=$ORACLE_BASE /product/11.2.0/db_1
```

```
export ORACLE_SID=orcl #oracle 启动数据库实例名
```

```
export ORACLE_TERM=xterm #xterm 窗口模式安装
```

```
export PATH=$ORACLE_HOME/bin:/usr/sbin:$PATH # 添加系统
```

环境变量

```
export LD_LIBRARY_PATH=$ORACLE_HOME/lib:/lib:/usr/lib #
```

添加系统环境变量

```
:wq! #保存退出
```

```
source /home/oracle/.bash_profile #使设置立刻生效
```

完成后执行：

```
$ env | grep ORA # 查看环境变量是否完成
```

```
oracle@oracledb ~]$ env | grep ORA
```

```
ORACLE_BASE= /home/oracle/app
```

```
ORACLE_HOME=/home/oracle/app/product/11.2.0/db_1
```

# 关闭防火墙

```
service iptables stop
```

```
[root@jianhan2 ~]# service iptables stop
iptables: Flushing firewall rules: [ OK ]
iptables: Setting chains to policy ACCEPT: filter [ OK ]
iptables: Unloading modules: [ OK ]
[root@jianhan2 ~]# service iptables status
iptables: Firewall is not running.
[root@jianhan2 ~]#
```

#### 1.1.6. 安装依赖包

```
yum -y install gcc gcc-c++ make binutilscompat-libstdc++-33 elfutils-libelf elfutils-libelf-devel
```

```
glibc glibc-commonglibc-devel libaio libaio-devel libgcclibstdc++ libstdc++-devel unixODBC
```

```
unixODBC-devel
```

安装完成之后运行：

```
rpm -q binutils compat-libstdc++-33 elfutils-libelf elfutils-libelf-devel gcc gcc-c++ glibc
glibc-common glibc-devel glibc-headers kernel-headers ksh libaio libaio-devel libgcc libgomp
libstdc++ libstdc++-devel make numactl-devel sysstat
```

```

binutils-2.23.52.0.1-30.el7.x86_64
compat-libstdc++-33-3.2.3-72.el7.i686
compat-libstdc++-33-3.2.3-72.el7.x86_64
elfutils-libelf-0.160-1.el7.x86_64
package elfutils-libelf-devel is not installed
gcc-4.8.3-9.el7.x86_64
package gcc-c++ is not installed
glibc-2.17-78.el7.x86_64
glibc-2.17-78.el7.i686
glibc-common-2.17-78.el7.x86_64
glibc-devel-2.17-78.el7.x86_64
glibc-headers-2.17-78.el7.x86_64
kernel-headers-3.10.0-229.el7.x86_64
package ksh is not installed
libaio-0.3.109-12.el7.i686
libaio-0.3.109-12.el7.x86_64
package libaio-devel is not installed
libgcc-4.8.3-9.el7.x86_64
libgcc-4.8.3-9.el7.i686
libgomp-4.8.3-9.el7.x86_64
libstdc++-4.8.2-16.el7.x86_64
package libstdc++-devel is not installed
make-3.82-21.el7.x86_64
package numactl-devel is not installed
sysstat-10.1.5-7.el7.x86_64

```

如遇到 is not installed 请先 yum search ksh

```

[root@host-172-18-163-111 ~]# yum search ksh
Loaded plugins: fastestmirror, langpacks
Loading mirror speeds from cached hostfile
===== N/S matched: ksh =====
ksh.x86_64 : The Original ATT Korn Shell
mksh.x86_64 : MirBSD enhanced version of the Korn Shell

Name and summary matches only, use "search all" for everything.
[root@host-172-18-163-111 ~]# █

```

再执行 yum install ksh.x86\_64 安装，  
有两个文件，如：

```

[admin@localhost ~]$ yum search compat-libstdc++-33
Loaded plugins: fastestmirror, refresh-packagekit, security
Loading mirror speeds from cached hostfile
* base: mirrors.zju.edu.cn
* extras: mirrors.163.com
* updates: mirrors.163.com
===== N/S Matched: compat-
compat-libstdc++-33.i686 : Compatibility standard C++ libraries
compat-libstdc++-33.x86_64 : Compatibility standard C++ libraries

```

先装 i686，再 x86\_64

## 1.2. 开始安装

### 1.2.1. 文件配置

ORACLE ZIP 文件解压后得到 database 目录，其中包含 response 目录，该目录中有三个 rsp 文件，用来作为静默安装时的应答文件的模板。

三个文件作用分别是：

db\_install.rsp ：安装应答

dbca.rsp ：创建数据库应答

netca.rsp ：建立监听、本地服务名等网络设置的应答

将 db\_install.rsp 备份一份，在其基础上修改内容，将 create database 段中内容设置好即可。  
修改静默安装的配置文件

```
grep -Ev " ^$|^ #" db_install.rsp
```

```
sponseFileVersion=/oracle/install/rspfmt_dbinstall_response_schema_v11_2_0
```

```
oracle.install.option=INSTALL_DB_AND_CONFIG
```

```
ORACLE_HOSTNAME=localhost.localdomain
```

```
UNIX_GROUP_NAME=oinstall
```

```
INVENTORY_LOCATION=/home/oracle/app/oraInventory
```

```
SELECTED_LANGUAGES=en
```

```
ORACLE_HOME=/home/oracle/app/product/11.2.0/db_1
```

```
ORACLE_BASE=/home/oracle/app
```

```
oracle.install.db.InstallEdition=EE
```

```
oracle.install.db.isCustomInstall=false
```

```
oracle.install.db.customComponents=oracle.server:11.2.0.1.0,oracle.sysman.ccr:10.2.7.0  
.0,oracle.xdk:11.2.0.1.0,oracle.rdbms.oci:11.2.0.1.0,oracle.network:11.2.0.1.0,oracle.netw  
ork.listener:11.2.0.1.0,oracle.rdbms:11.2.0.1.0,oracle.options:11.2.0.1.0,oracle.rdbms.part  
itioning:11.2.0.1.0,oracle.oraolap:11.2.0.1.0,oracle.rdbms.dm:11.2.0.1.0,oracle.rdbms.dv:  
11.2.0.1.0,orcle.rdbms.lbac:11.2.0.1.0,oracle.rdbms.rat:11.2.0.1.0
```

```
oracle.install.db.DBA_GROUP=dba
```

```
oracle.install.db.OPER_GROUP=oinstall
```

```
oracle.install.db.CLUSTER_NODES=
```

```
oracle.install.db.config.starterdb.type=GENERAL_PURPOSE
```

```
oracle.install.db.config.starterdb.globalDBName=orcl
```

```
oracle.install.db.config.starterdb.SID=orcl
```

```
oracle.install.db.config.starterdb.characterSet=AL32UTF8
```

```
oracle.install.db.config.starterdb.memoryOption=true
```

```
oracle.install.db.config.starterdb.memoryLimit=400
```

```
oracle.install.db.config.starterdb.installExampleSchemas=false
```

```
oracle.install.db.config.starterdb.enableSecuritySettings=true
```

```
oracle.install.db.config.starterdb.password.ALL=oracle
```

```
oracle.install.db.config.starterdb.password.SYS=
```

```
oracle.install.db.config.starterdb.password.SYSTEM=
```

```
oracle.install.db.config.starterdb.password.SYSMAN=
```

```
oracle.install.db.config.starterdb.password.DBSNMP=
```

```
oracle.install.db.config.starterdb.control=DB_CONTROL
```

```
oracle.install.db.config.starterdb.gridcontrol.gridControlServiceURL=
```



```
oracle.install.db.config.starterdb.dbcontrol.enableEmailNotification=false
oracle.install.db.config.starterdb.dbcontrol.emailAddress=
oracle.install.db.config.starterdb.dbcontrol.SMTPServer=
oracle.install.db.config.starterdb.automatedBackup.enable=false
oracle.install.db.config.starterdb.automatedBackup.osuid=
oracle.install.db.config.starterdb.automatedBackup.ospwd=
oracle.install.db.config.starterdb.storageType=FILE_SYSTEM_STORAGE
oracle.install.db.config.starterdb.fileSystemStorage.dataLocation=
oracle.install.db.config.starterdb.fileSystemStorage.recoveryLocation=
oracle.install.db.config.asm.diskGroup=
oracle.install.db.config.asm.ASMSNMPPassword=
MYORACLESUPPORT_USERNAME=
MYORACLESUPPORT_PASSWORD=
SECURITY_UPDATES_VIA_MYORACLESUPPORT=
DECLINE_SECURITY_UPDATES=true
```

### 1.2.2. 开始安装

静默安装启动：

```
./runInstaller -silent -ignorePrereq -responseFile /home/oracle/database/response/db_install.rsp
```

```
[oracle@oracledb database]$ ./runInstaller -silent -ignorePrereq -responseFile
/home/oracle/database/response/db_install.rsp
```

Starting Oracle Universal Installer...

Checking Temp space: must be greater than 120 MB.	Actual 165908 MB	Passed
---	------------------	--------

Checking swap space: must be greater than 150 MB.	Actual 16383 MB	Passed
---	-----------------	--------

Preparing to launch Oracle Universal Installer from

/tmp/OraInstall2015-01-29\_03-35-32PM. Please wait ...[oracle@oracledb

database]\$ [WARNING] [INS-32055] The Central Inventory is located in the Oracle base.

CAUSE: The Central Inventory is located in the Oracle base.

ACTION: Oracle recommends placing this Central Inventory in a location outside the Oracle base directory.

[WARNING] [INS-13014] Target environment do not meet some optional requirements.

CAUSE: Some of the optional prerequisites are not met. See logs for details.

/tmp/OraInstall2015-01-29\_03-35-32PM/installActions2015-01-29\_03-35-32PM.log

ACTION: Identify the list of failed prerequisite checks from the log:

/tmp/OraInstall2015-01-29\_03-35-32PM/installActions2015-01-29\_03-35-32PM.log. Then either from the log file or from installation manual find the appropriate configuration to

meet the prerequisites and fix it manually.

[WARNING] [INS-32055] The Central Inventory is located in the Oracle base.

CAUSE: The Central Inventory is located in the Oracle base.

ACTION: Oracle recommends placing this Central Inventory in a location outside the Oracle base directory.

[WARNING] [INS-13014] Target environment do not meet some optional requirements.

CAUSE: Some of the optional prerequisites are not met. See logs for details.

/tmp/OralInstall2015-01-29\_03-35-32PM/installActions2015-01-29\_03-35-32PM.log

ACTION: Identify the list of failed prerequisite checks from the log:

/tmp/OralInstall2015-01-29\_03-35-32PM/installActions2015-01-29\_03-35-32PM.log. Then either from the log file or from installation manual find the appropriate configuration to meet the prerequisites and fix it manually.

You can find the log of this install session at:

/opt/app/oracle/oraInventory/logs/installActions2015-01-29\_03-35-32PM.log

The following configuration scripts need to be executed as the "root" user.

```
#!/bin/sh
```

```
#Root scripts to run
```

```
/opt/app/oracle/oraInventory/orainstRoot.sh
```

```
/opt/app/oracle/product/11.2.0/db_1/root.sh
```

To execute the configuration scripts:

1. Open a terminal window
2. Log in as "root"
3. Run the scripts
4. Return to this window and hit "Enter" key to continue

Successfully Setup Software.

安装完毕后会提示上述的信息，按照要求执行上述脚本即可

### 1.2.3. 配置监听程序

```
$ORACLE_HOME/bin/netca /silent /responseFile /opt/database/response/netca.rsp
```

```
[oracle@oracledb bin]$ $ORACLE_HOME/bin/netca /silent /responseFile
/opt/database/response/netca.rsp
```

Parsing command line arguments:

Parameter "silent" = true

Parameter "responsefile" = /opt/database/response/netca.rsp

Done parsing command line arguments.

Oracle Net Services Configuration:

Profile configuration complete.

Listener "LISTENER" already exists.

Oracle Net Services configuration successful. The exit code is 0

#### 1.2.4. 启动监听程序

```
/home/oracle/app/product/11.2.0/db_1/bin/lsnrctl start LISTENER
```

#### 1.2.5. 静默建库

```
oracle@oracledb]$ vi /home/oracle/database/response/dbca.rsp
```

GDBNAME = "orallocalhost.localdomain" 78 行 全局数据库的名字 =SID+ 主机域名

SID="orcl" //149 行 SID

CHARACTERSET="AL32UTF8" //415 行 编码

NATIONALCHARACTERSET="UTF8" //425 行 编码

```
[oracle@oracledb response]$ $ORACLE_HOME/bin/dbca -silent -responseFile
```

```
/home/oracle/database/response/dbca.rsp
```

Enter SYS user password:

Enter SYSTEM user password:

sh: /bin/ksh: No such file or directory

sh: /bin/ksh: No such file or directory

Copying database files

1% complete

3% complete



11% complete  
18% complete  
26% complete  
37% complete  
Creating and starting Oracle instance  
40% complete  
45% complete  
50% complete  
55% complete  
56% complete  
57% complete  
60% complete  
62% complete  
Completing Database Creation  
66% complete  
70% complete  
73% complete  
74% complete  
85% complete  
96% complete  
100% complete  
Look at the log file "/opt/app/oracle/cfgtoollogs/dbca/ora11g/ora11g.log" for further details.

### 1.2.6. 启动数据库

启动数据库

```
$ sqlplus / as sysdba //as 前有个空格
```

```
[oracle@oracledb ~]$ sqlplus / as sysdba
```

```
SQL*Plus: Release 11.2.0.1.0 Production on Mon Feb 16 14:26:57 2015
```

```
Copyright (c) 1982, 2009, Oracle. All rights reserved.
```

```
Connected to an idle instance.
```

```
SQL> start
```

SP2-1506: START, @ or @@ command has no arguments

```
SQL> startup
```

ORACLE instance started.

Total System Global Area 3290345472 bytes

Fixed Size 2217832 bytes

Variable Size 1795164312 bytes

Database Buffers 1476395008 bytes

Redo Buffers 16568320 bytes

Database mounted.

Database opened.

```
SQL>
```

使用 show parameter ; 或者 select table\_name from dba\_tables 看看是否正常

数据库停止命令

```
SQL>shutdown immediate
```

备注：

启动监听：lsnrctl start

查看监听：lsnrctl status

停止监听：lsnrctl stop

启动监听时遇到 The listener supports no services

可以在 listener.ora 里面添加了下面内容解决

```
SID_LIST_LISTENER =
```

```
(SID_LIST =
```

```
(SID_DESC =
```

```
(GLOBAL_DBNAME = orcl)
```

```
(SID_NAME = orcl)
```

```
)
```

```
)
```

### 1.2.7. 字符集编码问题修改

ORACLE字符集编码修改

可以通过以下固定用法实现：

```
sql> conn / as sysdba;
sql> shutdown immediate;
        database closed.
        database dismounted.
        oracle instance shut down.

sql> startup mount;
        oracle instance started.
        total system global area    135337420 bytes
        fixed size                    452044 bytes
        variable size                  109051904 bytes
        database buffers                25165824 bytes
        redo buffers                    667648 bytes
        database mounted.

sql> alter system enable restricted session;
        system altered.

sql> alter system set job_queue_processes=0;
        system altered.

sql> alter system set aq_tm_processes=0;
        system altered.

sql> alter database open;
        database altered.

sql> alter database character set internal_use    AL32UTF8;
sql> shutdown immediate;
sql> startup;
```

备注：具体的编码格式根据实际需要修改即可，推荐 UTF-8 (默认是 GBK)。