RHEL7 Oracle 11.2.0.4

安装文档

|  |  |
| --- | --- |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

# 文档控制

此文档仅供<xx公司>与利道公司技术部审阅，不得向与此无关的个人或机构传阅或复制。

## 修改记录

| **日期** | **作者** | **版本号** | **变更内容** |
| --- | --- | --- | --- |
|  |  |  |  |
| 2023.09.01 | 李曰福 | v1.0 | 创建 |
|  |  |  |  |
|  |  |  |  |

## 分发者

|  |  |
| --- | --- |
| **姓名** | **职位** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

## 审阅记录

|  |  |
| --- | --- |
| **姓名** | **职位** |
|  |  |
|  |  |
|  |  |
|  |  |

## 相关文档

Oracle技术参考

* Oracle Database (RDBMS) 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) (Doc ID 169706.1)
* How to Display and Change UNIX Process Resource Limits (Doc ID 188149.1)
* Missing pdksh-5.2.14 package during Oracle database 11.2.0.4 install on Oracle Linux 7 (Doc ID 1962046.1)
* Defining a "default RPMs" installation of the Oracle Linux (OL) OS (Doc ID 401167.1)
* Missing or Ignored package compat-libstdc++-33-3.2.3 causes Text Issues (Doc ID 2254198.1)
* Requirements for Installing Oracle 11.2.0.4 RDBMS on OL7 or RHEL7 64-bit (x86-64) (Doc ID 1962100.1)
* Upon startup of Linux database get ORA-27102: out of memory Linux-X86\_64 Error: 28: No space left on device (Doc ID 301830.1)
* Startup Fails with ORA-27125 And Alert Log Shows "Error: ENOSPC while creating shared memory segment of size xxxxx bytes" (Doc ID 2325742.1

# 文档目录

[文档控制 2](#_Toc144562771)

[修改记录 2](#_Toc144562772)

[分发者 2](#_Toc144562773)

[审阅记录 2](#_Toc144562774)

[相关文档 2](#_Toc144562775)

[文档目录 3](#_Toc144562776)

[本次服务总结 5](#_Toc144562777)

[平台认证 5](#_Toc144562778)

[Oracle数据库支持年限 5](#_Toc144562779)

[安装步骤 6](#_Toc144562780)

[OS资源配置规范 6](#_Toc144562781)

[安装规范 7](#_Toc144562782)

[Oracle 11g 用户/组管理规范 7](#_Toc144562783)

[Oracle 11g 软件介质 7](#_Toc144562784)

[Oracle 11g安装目录规范 7](#_Toc144562785)

[数据库配置规范 7](#_Toc144562786)

[数据库安装信息 8](#_Toc144562787)

[安装准备 8](#_Toc144562788)

[检查OS版本及内核版本 8](#_Toc144562789)

[检查OS运行级别 8](#_Toc144562790)

[主机名配置 8](#_Toc144562791)

[检查OS时区 8](#_Toc144562792)

[检查内存和SWAP大小 9](#_Toc144562793)

[检查安装目录 9](#_Toc144562794)

[关闭透明大页和NUMA 9](#_Toc144562795)

[检查需求软件包 9](#_Toc144562796)

[配置/etc/hosts 10](#_Toc144562797)

[自动对时服务chrony或者ntp 11](#_Toc144562798)

[Selinux 禁用 11](#_Toc144562799)

[关闭防火墙 11](#_Toc144562800)

[禁用avahi-daemon 11](#_Toc144562801)

[创建组/用户 12](#_Toc144562802)

[配置内核参数和网络参数 12](#_Toc144562803)

[创建目录 13](#_Toc144562804)

[配置环境变量 13](#_Toc144562805)

[配置用户shell limits 13](#_Toc144562806)

[配置用户登录权限 13](#_Toc144562807)

[配置oracle自动启动服务 13](#_Toc144562808)

[安装软件 14](#_Toc144562809)

[编辑配置文件 11g-setup.ini 14](#_Toc144562810)

[解压oracle安装包 14](#_Toc144562811)

[修改静默安装rsp文件 15](#_Toc144562812)

[建数据文件目录 15](#_Toc144562813)

[执行安装 15](#_Toc144562814)

[执行root.sh 15](#_Toc144562815)

[打补丁 15](#_Toc144562816)

[更新opatch 15](#_Toc144562817)

[打补丁p14407401 15](#_Toc144562818)

[打补丁p16811897 16](#_Toc144562819)

[打补丁p31537677 16](#_Toc144562820)

[DBCA建库 17](#_Toc144562821)

[设置安装信息 17](#_Toc144562822)

[静默配置侦听 17](#_Toc144562823)

[建静默安装rsp文件 17](#_Toc144562824)

[执行静默建库命令 17](#_Toc144562825)

[执行postpatch和utlrp 18](#_Toc144562826)

[检查组件和版本 18](#_Toc144562827)

[11g 单实例数据库最佳实践 18](#_Toc144562828)

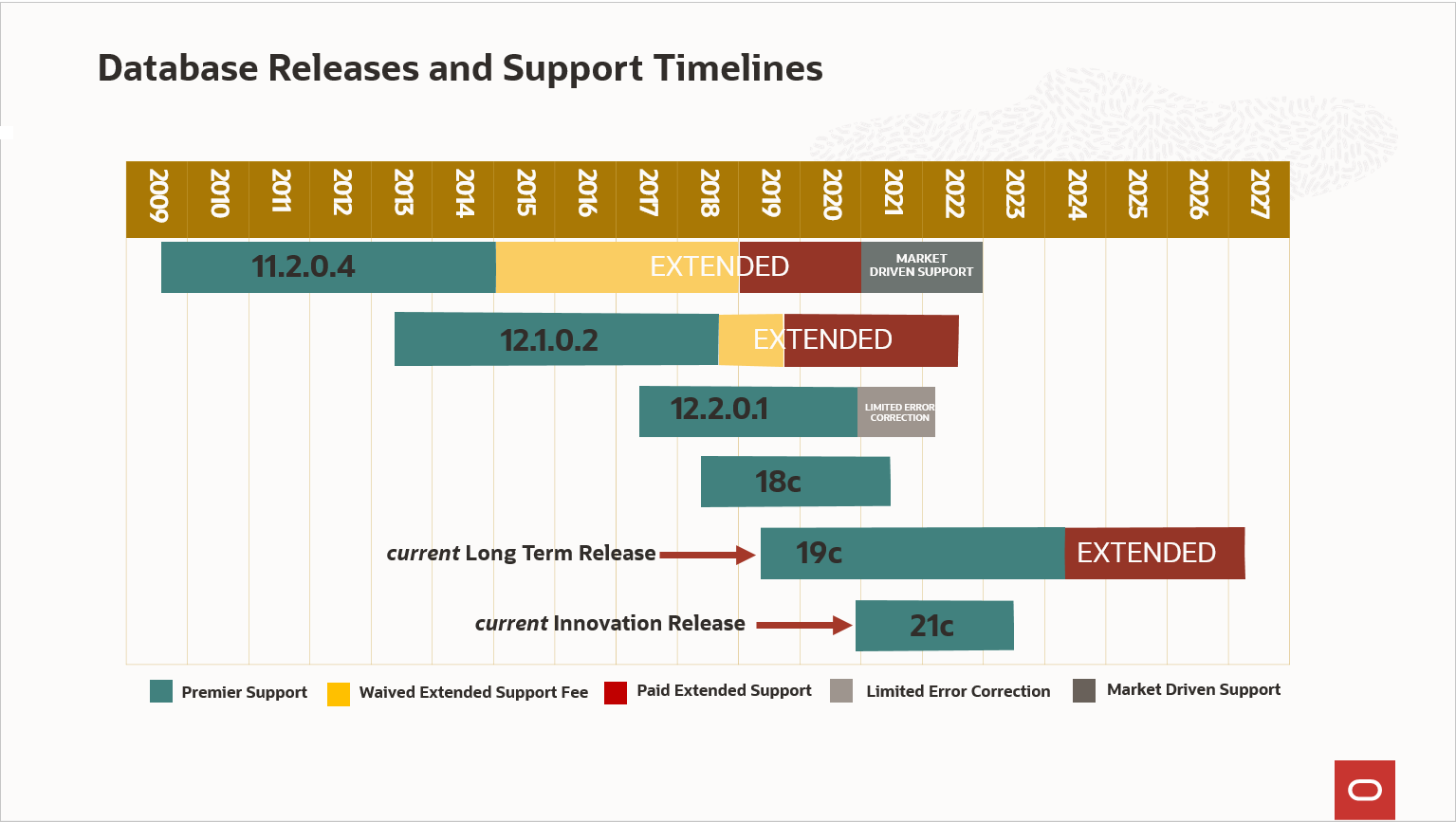
[清理oracle安装 20](#_Toc144562829)

# 本次服务总结

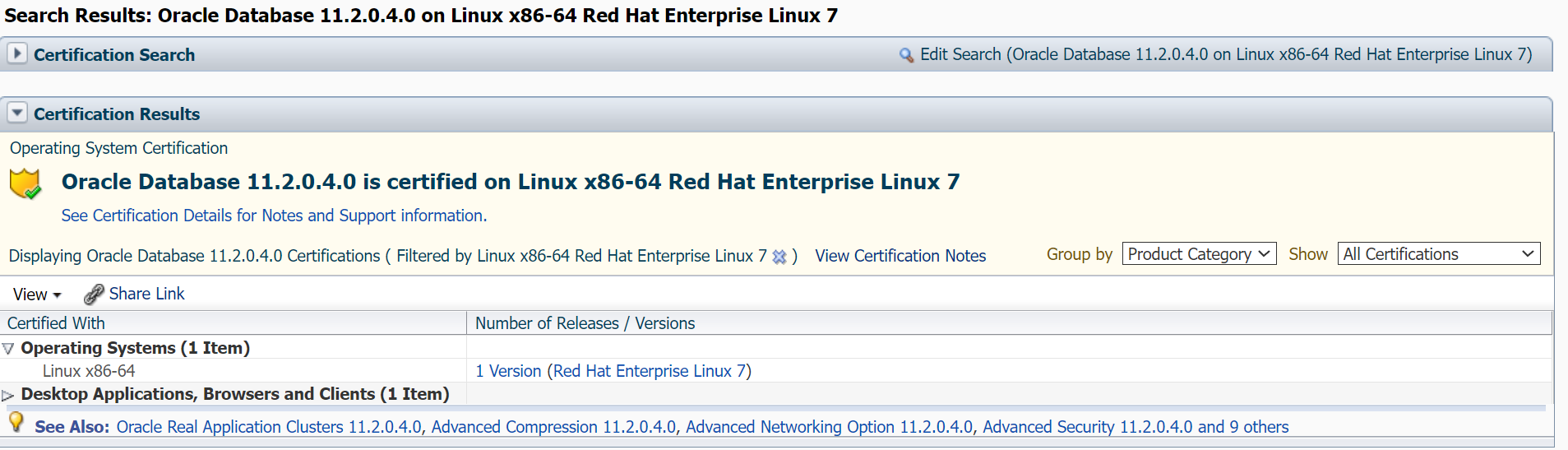
|  |  |
| --- | --- |
| **总结** | * 本文档基于Oracle Online Document Install Guide。 * 在Red Hat Linux平台经过测试。 * 文档内容包括： * OS资源要求 * 数据库安装规范 * DBCA静默建库 * 补丁安装 * 最佳实践调整 |

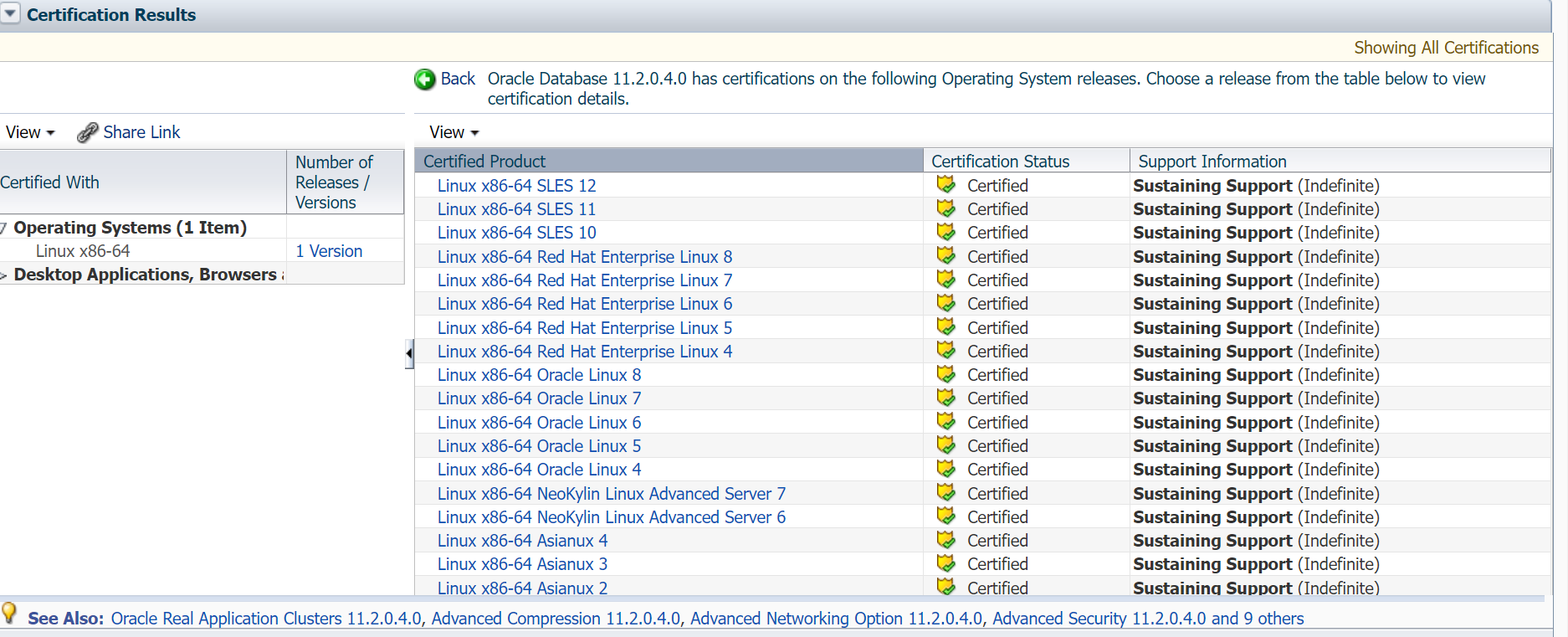
# 平台认证

Oracle数据库支持年限



使用support.oracle.com的Certifications查看数据库的认证平台：



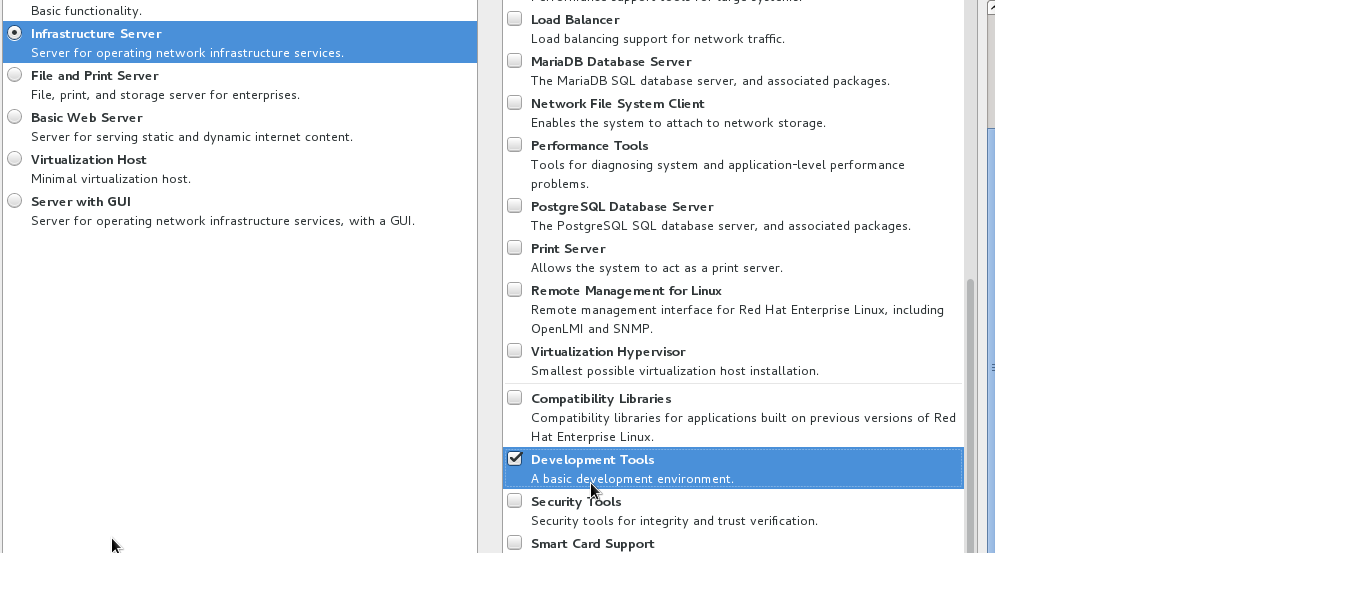


# 安装步骤

## OS资源配置规范

|  |  |
| --- | --- |
| 选项 | 描述 |
| RAM | minimum 1GB, recommended 2GB |
| /tmp | 至少1GB。 |
| SWAP | If RAM between 1 GB and 2 GB then 1.5 times the size fo RAM. If RAM between 2 GB to 16 GB then equal to the size of RAM. If RAM greater than 16 GB then 16 GB. |
| Run Level | 3/5 |
| RDBMS HOME | 建议大于等于100GB。 |
| OS安装软件包 | 参考Doc ID 401167.1, 见下图 |

Oracle Linux7缺省安装定义:



## 安装规范

### Oracle 11g 用户/组管理规范

组配置规范说明：

|  |  |  |
| --- | --- | --- |
| Name | REMARK | Necessity |
| oinstall | gid=1101,用于安装Oracle数据库软件 | \*必建\* |
| oper | gid=1102,用于对Oracle数据库做维护操作 | \*必建\* |
| dba | gid=1103,用于管理Oracle数据库 | \*必建\* |

用户配置规范说明：

|  |  |  |  |
| --- | --- | --- | --- |
| Name | UID | Prim Group | Auxiliary group |
| oracle | 1100 | oinstall(1101) | 1102(oper),1103(dba) |

### Oracle 11g 软件介质

安装前需准备以下安装介质，并放至目录 /stage中。

1. **Oracle Database安装介质：**

p13390677\_112040\_Linux-x86-64\_1of7.zip

p13390677\_112040\_Linux-x86-64\_2of7.zip

1. **Patch：**

p31537677\_112040\_Linux-x86-64.zip

p18841764\_112040\_Linux-x86-64.zip

p16811897\_112040\_Generic.zip

p14407401\_112040\_Generic.zip

1. **OPatch(OPATCH\_VERSION:11.2.0.3.31)：**

p6880880\_112000\_Linux-x86-64.zip

安装包下载链接请求: 发email: yuefu.li@leaderit.com

另外需要把rhel-server-7.9-x86\_64-dvd.iso (centos也可以)文件上传到/stage.

### Oracle 11g安装目录规范

安装目录规划原则：创建 /u01目录或者分区，用于Oracle数据库软件的安装。大小：150GB

Oracle Base目录：/u01/app/oracle

Oracle Home目录：/u01/app/oracle/product/11.2.0/dbhome\_1

### 数据库配置规范

|  |  |
| --- | --- |
| 选项 | 描述 |
| 数据库版本 | 11.2.0.4 |
| 数据库监听端口 | 1521 |
| 数据库字符集 | GBK |
| 国家语言字符集 | AL16UTF16 |
| 数据库块大小 | 8K |

### 数据库安装信息

|  |  |
| --- | --- |
| 选项 | 描述 |
| 主机名 | aspdb |
| 主机IP | 192.168.56.22 |
| root密码 | oracle |
| oracle用户密码 | oracle |
| sysdba密码 | oracle |
| 数据库名 | aspdb |
| 数据存放目录 | /u02/oradata |
| ORACLE\_HOME | /u01/app/oracle/product/11.2.0/dbhome\_1 |
| ORACLE\_BASE | /u01/app/oracle |

## 安装准备

### 检查OS版本及内核版本

检查OS版本和内核版本，确保满足11g的认证平台版本。

# cat /etc/redhat-release

# uname -a

### 检查OS运行级别

OS需要运行在3/5级别。

runlevel

N 3

### 主机名配置

主机名配置的工作由主机工程师完成，可以通过hostnamectl status命令查看主机名信息。注意：主机名以字母开头。

hostnamectl status

### 检查OS时区

在Linux 7上，可以使用命令"timedatectl"查看和修改OS时区。

注意：

* 根据行内标准，设置OS时区为东八区"Asia/Shanghai".

查看OS时区：

timedatectl status

### 检查内存和SWAP大小

可以通过/proc/meminfo或free命令查看OS当前的可用内存和Swap信息。

确保满足资源配置规范

egrep 'Mem|Swap' /proc/meminfo

### 检查安装目录

确保满足资源配置规范

df -h /u01 /tmp /dev/shm

### 关闭透明大页和NUMA

ref:ALERT: Disable Transparent HugePages on SLES11, RHEL6, RHEL7, OL6, OL7, and UEK2 and above (文档 ID 1557478.1)

**修改rc.local**

cat >> /etc/rc.local <<EOF

if test -f /sys/kernel/mm/redhat\_transparent\_hugepage/enabled; then

echo never > /sys/kernel/mm/redhat\_transparent\_hugepage/enabled

echo never > /sys/kernel/mm/redhat\_transparent\_hugepage/defrag

fi

if test -f /sys/kernel/mm/transparent\_hugepage/enabled; then

echo never > /sys/kernel/mm/transparent\_hugepage/enabled

echo never > /sys/kernel/mm/transparent\_hugepage/defrag

fi

EOF

chmod +x /etc/rc.local

**修改grub**

mv /etc/default/grub /etc/default/grub.def

sed 's/\(.\*\)quiet/\1quiet transparent\_hugepage=never numa=off/' /etc/default/grub.def > /etc/default/grub

grub2-mkconfig -o /boot/grub2/grub.cfg

grub2-mkconfig -o /boot/efi/EFI/redhat/grub.cfg

grub2-mkconfig -o /boot/efi/EFI/centos/grub.cfg

重启服务器

**检查**

应该显示numa=off, [never](或者redhat\_transparent\_hugepage目录不存在)

dmesg |grep -I numa

cat /sys/kernel/mm/transparent\_hugepage/enabled

cat /sys/kernel/mm/redhat\_transparent\_hugepage/enabled

### 检查需求软件包

ref：Oracle Document Install Guide for Linux Oracle Database (RDBMS) 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) (Doc ID 169706.1)

**配置yum源**

if [ ! -d /etc/yum.repos.d/bak ]; then

mkdir /etc/yum.repos.d/bak

fi

mv /etc/yum.repos.d/\*.repo /etc/yum.repos.d/bak

cat > /etc/yum.repos.d/iso.repo <<EOF

[iso]

name=iso

baseurl=file:///mnt

enabled=1

gpgcheck=0

EOF

**挂载ISO光盘到/mnt**

mount -o loop /stage/rhel-server-7.9-x86\_64-dvd.iso /mnt

**安装以下软件包**

cat > /stage/pkg.lst <<EOF

compat-libstdc++-33

binutils

compat-libcap1

gcc

gcc-c++

glibc

glibc-devel

ksh

libaio

libaio-devel

libgcc

libstdc++

libstdc++-devel

libXi

libXtst

make

sysstat

xdpyinfo

psmisc

expect

xorg-x11-xauth

EOF

yum install -y `awk '{print $1}' /stage/pkg.lst`

安装ompat-libstdc++(可选)

rpm -ivh /stage/compat-libstdc++-33\*.rpm

注意：根据MOS文档Missing or Ignored package compat-libstdc++-33-3.2.3 causes Text Issues (Doc ID 2254198.1)的描述，在RHEL7中"compat-libstdc++-33" RPM包不在ISO镜像中，如果不使用Oracle Text组件，则没有影响，如果需要使用Oracle Text组件，那么需要安装该RPM包。

### 配置/etc/hosts

配置/etc/hosts，注意不要修改localhost那2行。

export HOST\_NAME=aspdb

export HOST\_IP=192.168.56.22

cat >> /etc/hosts <<EOF

${HOST\_IP} ${HOST\_NAME}

EOF

### 自动对时服务chrony或者ntp

* 如果使用chrony

增加一行server即可,比如设置服务器192.168.56.1

cat chrony.conf |grep server  
# Use public servers from the [pool.ntp.org](http://pool.ntp.org/) project.  
server  192.168.56.1 iburst

* 如果不使用chrony可以禁用

systemctl stop chronyd  
systemctl disable chronyd

mv /etc/chrony.conf /etc/chrony.conf.bak

* 如果使用NTP，则启用NTP的-x选项。

缺省不启用ntp.如果使用.

vi /etc/sysconfig/ntp 编辑并添加如下内容

#NTPD\_OPTIONS="-g -u ntp:ntp"

NTPD\_OPTIONS="-x -g -u ntp:ntp"

重启NTP 服务，检查slewing option 是否生效

service ntpd restart

ps -ef | grep ntp

检查输出结果是否含有"-x"

### Selinux 禁用

sed -i "s#SELINUX=enforcing#SELINUX=disabled#g" /etc/selinux/config  
setenforce 0

检查:

grep "SELINUX=" /etc/selinux/config

### 关闭防火墙

以root用户身份执行如下命令

检查防火墙状态

systemctl status firewalld

systemctl is-enabled firewalld

关闭/禁用防火墙

systemctl stop firewalld

systemctl disable firewalld

### 禁用avahi-daemon

systemctl stop avahi-dnsconfd

systemctl stop avahi-daemon

systemctl disable avahi-dnsconfd

systemctl disable avahi-daemon

### 创建组/用户

export ORACLE\_PASSWORD=oracle

groupadd -g 1101 oinstall

groupadd -g 1102 oper

groupadd -g 1103 dba

useradd oracle -p $(echo "$ORACLE\_PASSWORD"| openssl passwd -1 -stdin) -u 1101 -g 1101 -G 1101,1102,1103

### 配置内核参数和网络参数

ref:

|  |  |
| --- | --- |
|  | Oracle Database (RDBMS) 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) (Doc ID 169706.1) |

内核参数值配置需求：

|  |  |
| --- | --- |
| Parameter | Value |
| **semmsl** | 250 |
| **semmns** | 32000 |
| **semopm** | 100 |
| **semmni** | 128 |
| **shmall** | 物理内存字节数除以pagesize(一般是4096).比如64G,64\*1024\*1024\*1024=4096 = 16777216.缺省的linux7的shmall为18446744073692774399, 远大于这个值,可以不改. |
| **shmmax** | 物理内存字节数除以2.比如64G,是64\*1024\*1024\*1024 / 2 = 34359738368. 缺省的linux7的shmmax为18446744073692774399,远大于这个值,可以不改.查看当前值: cat /proc/sys/kernel/shmall |
| **shmmni** | 4096. (SHMMNI - kernel parameter controlling maximum number of shared memory segments in the system) |
| **panic\_on\_oops** | 1 |
| **file-max** | 6815744 |
| **aio-max-nr** | 1048576  Note: This value limits concurrent outstanding requests and should be set to avoid I/O subsystem failures. |
| **ip\_local\_port\_range** | Minimum: 9000  Maximum: 65500 |
| **rmem\_default** | 262144 |
| **rmem\_max** | 4194304 |
| **wmem\_default** | 262144 |
| **wmem\_max** | 1048576 |

cat > /etc/sysctl.conf<<EOF

fs.aio-max-nr = 1048576

fs.file-max = 6815744

kernel.sem = 250 32000 100 128

kernel.shmmni = 4096

kernel.shmall = 18446744073692774399

kernel.shmmax = 18446744073692774399

net.ipv4.ip\_local\_port\_range = 9000 65500

net.core.rmem\_default = 262144

net.core.rmem\_max = 4194304

net.core.wmem\_default = 262144

net.core.wmem\_max = 1048576

#vm.min\_free\_kbytes = 524288

#vm.nr\_hugepages= xx

EOF

### 创建目录

mkdir -p /u01/app/oracle/product/11.2.0/dbhome\_1

chown -R oracle:oinstall /u01

chmod -R 775 /u01

### 配置环境变量

[oracle]$ vi .bash\_profile

umask 022

export ORACLE\_BASE=/u01/app/oracle

export ORACLE\_HOME=/u01/app/oracle/product/11.2.0/dbhome\_1

export ORACLE\_SID=aspdb

export NLS\_LANG=AMERICAN\_AMERICA.ZHS16GBK

export NLS\_DATE\_FORMAT="YYYY-MM-DD HH24:MI:SS"

export LD\_LIBRARY\_PATH=${ORACLE\_HOME}/lib

export PATH=${ORACLE\_HOME}/bin:${ORACLE\_HOME}/OPatch:${PATH}

if [ -t 0 ]; then

stty intr ^C

fi

### 配置用户shell limits

cat > /etc/security/limits.d/99-oracle-limits.conf <<EOF

oracle soft nproc 2047

oracle hard nproc 16384

oracle soft nofile 1024

oracle hard nofile 65536

oracle soft stack 10240

oracle hard stack 32768

oracle soft memlock -1

oracle hard memlock -1

EOF

cat > /etc/profile.d/oracle.sh <<EOF  
#Setting the appropriate ulimits for oracle  
if [ \$USER = "oracle" ]; then  
 if [ \$SHELL = "/bin/ksh" ]; then  
 ulimit -u 16384  
 ulimit -n 65536  
 else  
 ulimit -u 16384 -n 65536  
 fi  
fi  
EOF

# source /etc/profile

$ ulimit -a

### 配置用户登录权限

echo "session required pam\_limits.so" >> /etc/pam.d/login

### 配置oracle自动启动服务

cat > /lib/systemd/system/dbora.service <<EOF

[Unit]

Description=Oracle Database Start/Stop Service

After=syslog.target network.target local-fs.target remote-fs.target

[Service]

# systemd, by design does not honor PAM limits

# See: https://bugzilla.redhat.com/show\_bug.cgi?id=754285

LimitNOFILE=65536

LimitNPROC=16384

LimitSTACK=32M

LimitMEMLOCK=infinity

LimitCORE=infinity

Type=simple

User=oracle

Group=oinstall

Restart=no

ExecStartPre=/bin/rm -f $DB\_HOME/listener.log

ExecStartPre=/bin/rm -f $DB\_HOME/startup.log

ExecStart=$DB\_HOME/bin/dbstart $DB\_HOME

RemainAfterExit=yes

ExecStop=/bin/rm -rf $DB\_HOME/shutdown.log

ExecStop=$DB\_HOME/bin/dbshut $DB\_HOOME

TimeoutStopSec=5min

[Install]

WantedBy=multi-user.target

EOF

## 安装软件

如下都以root执行.不需要xwindow.

### 编辑配置文件 11g-setup.ini

根据数据库安装信息修改

cd /stage

cat > 11g-setup.ini<<EOF

export HOST\_NAME=aspdb

export HOST\_IP=192.168.56.22

#os密码

export ORACLE\_PASSWORD=oracle

export ROOT\_PASSWORD=oracle

#oracle 密码

export SYS\_PASSWORD=oracle

export DB\_NAME=aspdb

export ORA\_INVENTORY=/u01/app/oraInventory

export DB\_BASE=/u01/app/oracle

export DB\_HOME=/u01/app/oracle/product/11.2.0/dbhome\_1

export DATA\_PATH=/u02/oradata

EOF

### 解压oracle安装包

unzip -oq /stage/p13390677\_112040\_Linux-x86-64\_1\*.zip > /tmp/unzip\_db.log

unzip -oq /stage/p13390677\_112040\_Linux-x86-64\_2\*.zip >> /tmp/unzip\_db.log

mkdir /stage/patch

chown -R oracle:oinstall /stage

### 修改静默安装rsp文件

source /stage/11g-setup.ini

/usr/bin/cp -f /stage/database/response/db\_install.rsp /stage/db\_install.rsp

sed -i '/^#.\*$/d' /stage/db\_install.rsp

sed -i '/^$/d' /stage/db\_install.rsp

sed -i "s#\(oracle.install.option=\)#\1INSTALL\_DB\_SWONLY#g" /stage/db\_install.rsp

sed -i "s/\(ORACLE\_HOSTNAME=\)/\1${HOST\_NAME}/g" /stage/db\_install.rsp

sed -i "s/\(UNIX\_GROUP\_NAME=\)/\1oinstall/g" /stage/db\_install.rsp

sed -i "s#\(INVENTORY\_LOCATION=\)#\1${ORA\_INVENTORY}#g" /stage/db\_install.rsp

sed -i "s#\(ORACLE\_HOME=\)#\1${DB\_HOME}#g" /stage/db\_install.rsp

sed -i "s#\(ORACLE\_BASE=\)#\1${DB\_BASE}#g" /stage/db\_install.rsp

sed -i "s/\(oracle.install.db.InstallEdition=\)/\1EE/g" /stage/db\_install.rsp

sed -i "s/\(oracle.install.db.DBA\_GROUP=\)/\1dba/g" /stage/db\_install.rsp

sed -i "s/\(oracle.install.db.OPER\_GROUP=\)/\1oper/g" /stage/db\_install.rsp

sed -i "s/\(oracle.install.db.config.starterdb.type=\)/\1GENERAL\_PURPOSE/g" /stage/db\_install.rsp

sed -i "s#\(DECLINE\_SECURITY\_UPDATES=\)#\1TRUE#g" /stage/db\_install.rsp

cat > /stage/db\_install.sh <<EOF

cd /stage/database

./runInstaller -ignorePrereq -waitforcompletion -silent -showprogress -responsefile /stage/db\_install.rsp

EOF

chmod 755 /stage/db\_install.sh

### 建数据文件目录

if [ $DATA\_PATH ] ; then

mkdir -p $DATA\_PATH

fi

chown -R oracle:oinstall $DATA\_PATH

### 执行安装

su - oracle -c "sh /stage/db\_install.sh"

### 执行root.sh

sh ${ORA\_INVENTORY}/orainstRoot.sh

sh ${DB\_HOME}/root.sh

## 打补丁

如下以oracle用户执行

su - oracle

source /home/oracle/.bash\_profile

### 更新opatch

cd $ORACLE\_HOME

mv OPatch `date +'%Y-%m-%d-%H-%M-%S'`.OPatch

unzip /stage/p6880880\_112000\_Linux-x86-64.zip

### 打补丁p14407401

rm -rf /stage/patch/144

mkdir -p /stage/patch/144

chown oracle:oinstall /stage/patch/144

cd /stage/patch/144;unzip /stage/p14407401\_112040\_Generic.zip

#patch p144

cat > /tmp/p144.expect <<EOF

#!/usr/bin/expect -f

spawn $ORACLE\_HOME/OPatch/opatch apply

set timeout 10

expect "Do you want to proceed? \[y|n\]"

send "y\r"

set timeout 60

expect eof

EOF

执行expect文件

chmod +x /tmp/p144.expect

cd /stage/patch/144/14407401

/tmp/p144.expect

### 打补丁p16811897

rm -rf /stage/patch/168

mkdir -p /stage/patch/168

chown oracle:oinstall /stage/patch/168

cd /stage/patch/168;unzip /stage/p16811897\_112040\_Generic.zip

cat > /tmp/p168.expect <<EOF

#!/usr/bin/expect -f

spawn $ORACLE\_HOME/OPatch/opatch apply

set timeout 10

expect "Do you want to proceed? \[y|n\]"

send "y\r"

set timeout 60

expect eof

EOF

chmod +x /tmp/p168.expect

cd /stage/patch/168/16811897

/tmp/p168.expect

### 打补丁p31537677

cd /stage/patch

unzip /stage/p31537677\_112040\_\*.zip

cat > /tmp/p315.expect <<EOF

#!/usr/bin/expect -f

spawn $ORACLE\_HOME/OPatch/opatch apply

set timeout 10

expect "Do you want to proceed? \[y|n\]"

send "y\r"

set timeout 10

expect "Is the local system ready for patching? \[y|n\]"

send "y\r"

set timeout 300

expect eof

EOF

#执行expect文件

chmod +x /tmp/p315.expect

cd /stage/patch/31537677

/tmp/p315.expect

## DBCA建库

以oracle用户登录.使用oracle用户执行dbca命令创建数据库。

### 设置安装信息

source /stage/11g-setup.ini

### 静默配置侦听

#create listener

$ORACLE\_HOME/bin/netca -silent -responsefile $ORACLE\_HOME/assistants/netca/netca.rsp

### 建静默安装rsp文件

cat > /stage/db\_create.rsp<<EOF

[GENERAL]

RESPONSEFILE\_VERSION = "11.2.0"

OPERATION\_TYPE = "createDatabase"

[CREATEDATABASE]

GDBNAME = "${DB\_NAME}"

SID = "${DB\_NAME}"

TEMPLATENAME = "lidao\_11g.dbt"

CHARACTERSET = "ZHS16GBK"

NATIONALCHARACTERSET = "AL16UTF16"

MEMORYPERCENTAGE = "75"

EMCONFIGURATION = "NONE"

SYSPASSWORD = "${SYS\_PASSWORD}"

SYSTEMPASSWORD = "${SYS\_PASSWORD}"

DBSNMPPASSWORD = "${SYS\_PASSWORD}"

SYSMANPASSWORD = "${SYS\_PASSWORD}"

EOF

cp /stage/lidao\_11g.dbt $ORACLE\_HOME/assistants/dbca/templates/lidao\_11g.dbt

if [ $DATA\_PATH ] ; then

#用户自定义了数据存放目录

if [ -d $DATA\_PATH ]; then

echo -e "DATA\_PATH is $DATA\_PATH\n"

sed -i "s#DATA\_PATH#${DATA\_PATH}#g" $ORACLE\_HOME/assistants/dbca/templates/lidao\_11g.dbt

else

echo "Please check $DATA\_PATH, make sure it exists and owner is oracle:oinstall"

exit 1;

fi

fi

### 执行静默建库命令

$ORACLE\_HOME/bin/dbca -silent -force -responseFile /stage/db\_create.rsp

## 执行postpatch和utlrp

sqlplus / as sysdba <<EOF

@?/sqlpatch/14407401/postinstall.sql

exit

EOF

sqlplus / as sysdba <<EOF

@?/sqlpatch/16811897/postinstall.sql

exit

EOF

#根据 p31537677的readme,打补丁后建库,不需要执行p31537677的postpatch.

# 检查组件和版本

sqlplus / as sysdba <<EOF

set linesize 120;  
col comp\_id format a10;  
col comp\_name format a35;  
col version format a15;  
col status format a8;  
col modified format a30;  
select comp\_id,replace(comp\_name,' ','.') comp\_name,version,status,replace(replace(modified,' ',':'),'-','/') modified from dba\_registry;

set linesize 150

col action for a10

col action\_time for a20

col namespace for a15  
col comments for a30  
col bundle\_series for a10  
select \* from dba\_registry\_history;

EOF

cd $ORACLE\_HOME/OPatch

./opatch lspatches

# 11g 单实例数据库最佳实践

--检查aio

COL NAME FORMAT A50

SELECT NAME,ASYNCH\_IO FROM V$DATAFILE F,V$IOSTAT\_FILE I

WHERE F.FILE#=I.FILE\_NO

AND FILETYPE\_NAME='Data File';

--启用aio

alter system set filesystemio\_options=setall scope=spfile;

--禁用自动任务

alter profile default limit PASSWORD\_LIFE\_TIME unlimited;

begin

dbms\_auto\_task\_admin.disable(client\_name=>'sql tuning advisor',operation=>NULL,window\_name=>NULL);

end;

/

begin

dbms\_auto\_task\_admin.disable(client\_name=>'auto space advisor',operation=>NULL,window\_name=>NULL);

end;

/

begin

dbms\_auto\_task\_admin.disable(client\_name=>'auto optimizer stats collection',operation=>NULL,window\_name=>NULL);

end;

/

select client\_name, status from dba\_autotask\_client;

--其它

alter system set deferred\_segment\_creation=false scope=spfile sid='\*';

alter system set audit\_trail=none scope=spfile sid='\*';

alter system set aq\_tm\_processes=10 scope=spfile sid='\*';

alter system set open\_cursors=3000 scope=spfile sid='\*';

alter system set fast\_start\_mttr\_target=900 scope=spfile sid='\*';

alter system set db\_flashback\_retention\_target=10800 scope=spfile sid='\*';

alter system set undo\_retention=10800 scope=spfile sid='\*';

alter system set optimizer\_capture\_sql\_plan\_baselines=false scope=spfile sid='\*';

alter profile default limit PASSWORD\_LIFE\_TIME unlimited;

--重启

shutdown immediate;

startup

--检查aio

COL NAME FORMAT A50

SELECT NAME,ASYNCH\_IO FROM V$DATAFILE F,V$IOSTAT\_FILE I

WHERE F.FILE#=I.FILE\_NO

AND FILETYPE\_NAME='Data File';

# 清理oracle安装

#如果需要清理oracle环境重新安装

1. 删除安装目录/u01,/u02/oradata,/tmp下的oracle的文件

rm -rf /u01 /u02/oradata

find /tmp -user oracle -delete

2. 以root执行

rm -f /etc/oratab /etc/oraInst.loc

3. 删除oracle用户和组

userdel -fr oracle

groupdel oinstall

groupdel oper

groupdel dba