

OracleDB

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Centos에서 Oracle 10G 설치

1. 패키지 설치

```
$> yum -y groupinstall "Desktop" "X Window System" "GNOME Desktop Environment" "Desktop Platform Development" "Desktop Platform"
$> yum -y install glibc* libaio* compat-libstdc* compat-gcc* gcc* libXp* openmotif* compat-db* xorg-x11-deprecated-libs compat-lib*
$> yum install kde-i18n-Korean -y
$> yum install fonts-korean -y
```

- Centos 6 64비트만

```
$> yum install -y xorg-x11-xauth.x86_64 xorg-x11-apps.x86_64
$> yum install -y libXp libXtst binutils compat-db compat-libstdc++-33 glibc glibc-devel glibc-headers gcc gcc-c++ libstdc++ cpp make libaio
ksh elfutils-libelf sysstat libaio libaio-devel setarch libXp.i686 libXtst-1.0.99.2-3.el6.i686 glibc-devel.i686 libgcc-4.4.4-13.el6.i686 compat-
libstdc++* compat-libf2c* compat-gcc* compat-libgcc* libXt.i686 libXtst.i686
$> yum install -y glibc-2.12-1.7.el6_0.5.i686
```

2. 커널 파라미터 설정

```
$> echo "kernel.shmmax = 536870912
kernel.shmmni = 4096
kernel.sem = 250 32000 100 128
net.ipv4.ip_local_port_range = 1024 65000
net.core.rmem_default=262144
net.core.rmem_max=262144
net.core.wmem_default=262144
net.core.wmem_max=262144" >> /etc/sysctl.conf
$> sysctl -p
```

3. 계정설정

```
$> echo "#Oracle setting
*      soft  nproc  2047
*      hard  nproc  16384
*      soft  nofile 1024
*      hard  nofile 65536" >> /etc/security/limits.conf
$> echo "session required pam_limits.so" >> /etc/pam.d/login
$> groupadd oinstall
$> useradd -g oinstall oracle
$> passwd oracle
{{ 패스워드 입력 두번 }}
$> mkdir /usr/local/oracle
$> chown oracle.oinstall /usr/local/oracle
```

4. 설치시 OS정보 변경 수행

```
$> mv /etc/redhat-release /etc/redhat-release_ori
$> echo "redhat-4" > /etc/redhat-release
```

5. 시스템 설정 적용

```
$> echo "
# Oracle Settings
TMP=/tmp; export TMP
TMPDIR=$TMP; export TMPDIR
ORACLE_BASE=/usr/local/oracle; export ORACLE_BASE
ORACLE_HOME=$ORACLE_BASE/product/10.2.0/db_1; export ORACLE_HOME
ORACLE_SID=orcl; export ORACLE_SID
ORACLE_TERM=xterm; export ORACLE_TERM
PATH=/usr/sbin:$PATH; export PATH
PATH=$ORACLE_HOME/bin:$PATH; export PATH
LD_LIBRARY_PATH=$ORACLE_HOME/lib:/lib:/usr/lib; export LD_LIBRARY_PATH
CLASSPATH=$ORACLE_HOME/JRE:$ORACLE_HOME/jlib:$ORACLE_HOME/rdbms/jlib; export CLASSPATH

if [ $USER = "oracle" ]; then
if [ $SHELL = "/bin/ksh" ]; then
ulimit -p 16384
ulimit -n 65536
```

```
else
    ulimit -u 16384 -n 65536
fi
fi" >> /etc/profile
```

6. 시스템 기동시 Oracle 구동을 위한 적용

```
echo "
source /etc/profile
su - oracle -c \"\$ORACLE_HOME/bin/lsnrctl start\"
su - oracle -c \"\$ORACLE_HOME/bin/dbstart\"
" >> /etc/rc.d/rc.local
```

Centos에서 oracle 11g 설치

1. 패키지 설치하기

```
$> yum -y groupinstall "Desktop" "X Window System" "GNOME Desktop Environment" "Desktop Platform Development" "Desktop Platform"
$> yum -y install glibc* libaio* compat-libstdc* compat-gcc* gcc* libXp* openmotif* compat-db* xorg-x11-deprecated-libs compat-lib*
$> yum install kde-i18n-Korean -y
$> yum install fonts-korean -y
$> yum install -y binutils-2.* compat-libstdc++-33* elfutils* gcc-4.* gcc-c++-4.* glibc-2.* glibc* ksh* libaio* libgomp* libgcc* libstdc++* unixODBC-2*
unixODBC-devel* numactl-devel* sysstat* pdksh*
```

- Centos6 64비트에서는 추가 패키지 설치

```
$> yum install -y xorg-x11-xauth.x86_64 xorg-x11-apps.x86_64
$> yum install -y libXp libXtst binutils compat-db compat-libstdc++-33 glibc glibc-devel glibc-headers gcc gcc-c++ libstdc++ cpp make libaio
ksh elfutils-libelf sysstat libaio libaio-devel setarch libXp.i686 libXtst-1.0.99.2-3.el6.i686 glibc-devel.i686 libgcc-4.4.4-13.el6.i686 compat-
libstdc++* compat-libf2c* compat-gcc* compat-libgcc* libXt.i686 libXtst.i686
$> yum install -y glibc-2.12-1.7.el6_0.5.i686
```

2. 커널 파라미터 적용

```
$> echo "fs.suid_dumpable = 1
fs.aio-max-nr = 1048576
fs.file-max = 6815744
kernel.shmall = 2097152
kernel.shmmax = 536870912
kernel.shmmni = 4096
# semaphores: semmsl, semmns, semopm, semmni
kernel.sem = 250 32000 100 128
net.ipv4.ip_local_port_range = 9000 65500
net.core.rmem_default=4194304
net.core.rmem_max=4194304
net.core.wmem_default=262144
net.core.wmem_max=1048586" >> /etc/sysctl.conf
$> sysctl -p
```

3. 계정 설정

```
$> echo "oracle      soft nproc 2047
oracle      hard nproc 16384
oracle      soft nfile 4096
oracle      hard nfile 65536
oracle      soft stack 10240" >> /etc/security/limits.conf
$> groupadd oinstall
$> useradd -g oinstall oracle
$> passwd oracle
{{ 패스워드 입력 2번 }}
$> mkdir /usr/local/oracle
$> chown oracle.oinstall /usr/local/oracle
```

4. OS정보 수정

```
mv /etc/redhat-release /etc/redhat-release_ori
echo "redhat-4" > /etc/redhat-release
```

5. 시스템 변수 설정

```
$> echo "
# Oracle Settings
TMP=/tmp; export TMP
TMPDIR=$TMP; export TMPDIR
ORACLE_HOSTNAME=orcl.localdomain; export ORACLE_HOSTNAME
ORACLE_UNQNAME=DB11G; export ORACLE_UNQNAME
ORACLE_BASE=/usr/local/oracle; export ORACLE_BASE
ORACLE_HOME=$ORACLE_BASE/product/11.2.0/db_1; export ORACLE_HOME
ORACLE_SID=orcl; export ORACLE_SID
PATH=/usr/sbin:$PATH; export PATH
PATH=$ORACLE_HOME/bin:$PATH; export PATH
```

```
LD_LIBRARY_PATH=$ORACLE_HOME/lib:/lib:/usr/lib; export LD_LIBRARY_PATH
CLASSPATH=$ORACLE_HOME/jlib:$ORACLE_HOME/rdbms/jlib; export CLASSPATH" >> /etc/profile
```

6. 시스템 구동시 오라클 구동

```
$> echo "  
source /etc/profile  
su - oracle -c \"\$ORACLE_HOME/bin/lsnrctl start\"  
su - oracle -c \"\$ORACLE_HOME/bin/dbstart\"  
\" >> /etc/rc.d/rc.local
```

Centos에서 oracle 12c 설치하기

1. 패키지 설치하기

```
$> yum install binutils compat-libcap1 compat-libstdc++-33 compat-libstdc++-33.i686 gcc gcc-c++ glibc glibc.i686 glibc-devel glibc-devel.i686 ksh libgcc -y
$> yum install libgcc.i686 libstdc++ libstdc++.i686 libstdc++-devel libstdc++-devel.i686 libaio libaio.i686 libaio-devel libaio-devel.i686 libXext libXext.i686 -y
$> yum install libXtst libXtst.i686 libX11 libX11.i686 libXau libXau.i686 libxcb libxcb.i686 libXi libXi.i686 unixODBC unixODBC-devel -y
```

2. 커널파라미터 수정

```
$> echo "fs.file-max = 6815744
kernel.sem = 250 32000 100 128
kernel.shmmni = 4096
kernel.shmall = 1073741824
kernel.shmmax = 4398046511104
net.core.rmem_default = 262144
net.core.rmem_max = 4194304
net.core.wmem_default = 262144
net.core.wmem_max = 1048576
fs.aio-max-nr = 1048576
net.ipv4.ip_local_port_range = 9000 65500" >> /etc/sysctl.conf
$> sysctl -p
```

3. 계정정보 설정

```
$> echo "oracle soft nfile 1024
oracle hard nfile 65536
oracle soft nproc 16384
oracle hard nproc 16384
oracle soft stack 10240
oracle hard stack 32768" >> /etc/security/limits.conf

$> groupadd -g 54321 oinstall
$> groupadd -g 54322 dba
$> groupadd -g 54323 oper
$> useradd -u 54321 -g oinstall -G dba,oper oracle
$> passwd oracle
{{ 패스워드 입력 2회 }}
$> mkdir -p /usr/local/oracle/product/12.1.0/db_1
$> mkdir /usr/local/orainventory
$> chown -R oracle:oinstall /usr/local/oracle
$> chown oracle.oinstall /usr/local/orainventory
$> chmod -R 775 /usr/local/oracle
```

4. 시스템 변수 설정

```
$> echo "
# Oracle Settings
export TMP=/tmp
export TMPDIR=$TMP
export ORACLE_HOSTNAME=orcl.localdomain
export ORACLE_UNQNAME=orcl
export ORACLE_BASE=/usr/local/oracle
export ORACLE_HOME=$ORACLE_BASE/product/12.1.0/db_1
export ORACLE_SID=orcl
export PATH=/usr/sbin:$PATH
export PATH=$ORACLE_HOME/bin:$PATH
export LD_LIBRARY_PATH=$ORACLE_HOME/lib:/lib:/usr/lib
export CLASSPATH=$ORACLE_HOME/jlib:$ORACLE_HOME/rdbms/jlib" >> /home/oracle/.bash_profile
```

5. 시스템 구동 후 DB실행

```
$> echo "
source /etc/profile
su - oracle -c \"$ORACLE_HOME/bin/lsnrctl start\"
su - oracle -c \"$ORACLE_HOME/bin/dbstart\"
```

```
" >> /etc/rc.d/rc.local
```

oracle 10g 실행시 failed to auto-start... vikrkuma_new/oracle 메시지 출력할때

오라클 실행시 “Failed to auto-start Oracle Net Listene using /ade/vikrkuma_new/oracle/bin/tnslsnr” 이런 메시지가 뜨는경우 조치방법(근데 오라클은 정상적으로 잘 된다!)

조치사항

```
$> vi $ORACLE_HOME/bin/dbstart
...
ORACLE_HOME_LISTNER=/ade/vikrkuma_new/oracle
ORACLE_HOME_LISTNER=$ORACLE_HOME 으로 교체
...
```

reference

- <http://www.oracle-base.com/articles/linux/automating-database-startup-and-shutdown-on-linux.php>

oracle 10g 아카이브 모드 설정

1. 아카이브 모드 상태 확인

```
SQL> archive log list
\\Database log mode      No Archive Mode
Automatic archival      Disabled
Archive destination      USE_DB_RECOVERY_FILE_DEST
Oldest online log sequence  1
Current log sequence      2
\\SQL> show parameter spfile
\\NAME                    TYPE          VALUE
-----
spfile                    string        /u01/app/oracle/product/10.2.0
                        /db_1/dbs/spfileTSH1.ora
```

2. 아카이브 모드 설정

```
SQL> ALTER SYSTEM SET log_archive_dest_1='location=/u01/app/oracle/oradata/data reopen=60' scope=spfile;
System altered.
\\SQL> ALTER SYSTEM SET log_archive_format='%t_%s_%r.arc' scope=spfile;
System altered.
```

3. Oracle 종료

```
SQL> shutdown immediate
Database closed.
Database dismounted.
ORACLE instance shut down.
```

4. Oracle 시작

```
SQL> startup mount
.ORACLE instance started.
\\Total System Global Area 608174080 bytes
Fixed Size      1220844 bytes
Variable Size   171970324 bytes
Database Buffers 432013312 bytes
Redo Buffers    2969600 bytes
Database mounted.
```

5. log모드 변경

```
SQL> alter database archivelog;
Database altered.
```

6. 아카이브모드 설정내용 확인

```
SQL> archive log list
Database log mode      Archive Mode
Automatic archival     Enabled
Archive destination    /u01/app/oracle/oradata/data
Oldest online log sequence  1
Next log sequence to archive  2
Current log sequence      2
```

7. DB Open

```
SQL> alter database open;
Database altered.
```

8. DB 셧다운 & Cold Backup 권장

```
SQL> shutdown immediate
Database closed.
Database dismounted.
ORACLE instance shut down.
```

9. log파일 생성확인

```
SQL> ALTER SYSTEM SWITCH LOGFILE;  
\\System altered.
```

oracle 10g dbstart에러 조치방법

DB구동시 에러메시지 출력

```
[oracle@localhost ~]$ /usr/local/oracle/product/10.2.0/db_1/bin/dbstart

Failed to auto-start Oracle Net Listene using /ade/vikrkuma_new/oracle/bin/tnslsnr

Processing Database instance "orcl": log file /usr/local/oracle/product/10.2.0/db_1/startup.log
```

조치방법

```
$> vi /usr/local/oracle/product/10.2.0/db_1/bin/dbstart
#ORACLE_HOME_LISTNER=/ade/vikrkuma_new/oracle

ORACLE_HOME_LISTNER=$ORACLE_HOME
```

Oracle 몇가지 사용쿼리들

1. 오라클 테이블 스페이스를 emp2로 설정해서 생성

```
SQL> create tablespace testdb  
datafile '/home/oracle/oradata/TSH1/testdb.dbf' size 500m;
```

2. test_user으로 계정 생성하고 테이블 스페이스는 testdb1으로 설정

```
SQL> CREATE USER test_user IDENTIFIED BY userdata1 DEFAULT TABLESPACE testdb TEMPORARY TABLESPACE TEMP;
```

3. 권한주기

```
SQL> GRANT connect, resource, create session,create table TO test_user;
```

4. testdb에 테이블 생성

```
SQL> create table emp2( empno number, ename varchar2(20), deptno number);
```

5. 사용자가 가지고 있는 테이블 확인

```
SQL> select table_name from user_tables;  
TABLE_NAME  
-----  
EMP2
```

6. 테이블 구조 확인

```
SQL> desc emp2  
  
Name                Null?  Type  
-----  
  
EMPNO                NUMBER  
ENAME                VARCHAR2(20)  
DEPTNO               NUMBER
```

7. 데이터 insert 해보기

```
SQL> insert into emp2 values(123,'test_user',456);
```

```
SQL> select * from emp2;
```

```
EMPNO ENAME          DEPTNO  
-----  
  
123 test_user      456
```

8. 데이터 업데이트 하기

```
SQL> update emp2 set ename='wow' where ename='ggg';  
1 row updated.
```

```
SQL> select * from emp2;
```

```
EMPNO ENAME          DEPTNO  
-----  
123 test_user      456  
123 wow            102
```

9. 테이블 스페이스 확인

```
SQL> select tablespace_name,file_name from dba_data_files;
```

10. 계정 패스워드 변경

```
SQL> show user;
USER is "test_user"
SQL> alter user iheart identified by pass2;
```

11. 15분전 쿼리 했던 데이터 복구방법

```
INSERT INTO A SELECT * FROM A AS OF TIMESTAMP(SYSTIMESTAMP - INTERVAL '15' MINUTE);
```

12. 데이터베이스명 확인

```
SQL> select name, db_unique_name from v$database;
NAME      DB_UNIQUE_NAME
-----
ORCL      orcl
```

13. SID 확인방법

```
SQL> select instance from v$thread;
INSTANCE
-----
orcl
```

Oracle 실행절차

작업 버전 : Oracle 10g

네트워크 포트 확인 (1521포트 LISTEN 확인)

웹 서비스 구동 web서비스 기본계정

사용자이름 : sys, 암호 : 설치할 때 입력한 암호

다음으로접속 : sysdba

Oracle10g업데이트 후 에러

1. 오라클 10g 패치 후(10.2.0.2 -> 10.2.0.5) startup 명령어로 DB를 open 하려고 할 때,
ORA-01092: ORACLE instance terminated. Disconnection forced 에러 발생
2. 발생 원인
오라클 엔진만 패치되고 DB에 패치가 제대로 적용되지 않았을 경우
3. 해결방안1. DB데이터 업데이트

```
SQL> sqlplus / as sysdba
SQL> startup upgrade;
SQL> @$ORACLE_HOME/rdbms/admin/catupgrrd.sql
```

*** 시간 약 15~20분걸림

1. DB종료 후 재기동

```
SQL> shutdown immediate;
SQL> startup;
SQL> @$ORACLE_HOME/rdbms/admin/utlrrp.sql
SQL> !
```

2. \$ORACLE_HOME/bin에 존재하는 파일에 권한 부여

```
[oracle@localhost ~] cd $ORACLE_HOME/install
[oracle@install ~] ./changePerm.sh
SQL> select * from v$version;
```

Oracle에서 사용자Lock풀기

Oracle에서 Lock걸린 사용자 해제 절차

1. Oracle에서 사용자 정보 확인

```
SQL> select username,account_status from dba_users;
USERNAME          ACCOUNT_STATUS
-----
EXFSYS            EXPIRED & LOCKED
DMSYS             EXPIRED & LOCKED
WMSYS            EXPIRED & LOCKED
XDB              EXPIRED & LOCKED
ORDPLUGINS        EXPIRED & LOCKED
SI_INFORMTN_SCHEMA EXPIRED & LOCKED
OLAPSYS           EXPIRED & LOCKED
MDDATA            EXPIRED & LOCKED
DIP              EXPIRED & LOCKED
SCOTT            EXPIRED & LOCKED
TMSYS            EXPIRED & LOCKED
TEST             LOCKED
```

2. lock된 test계정정보 수정

```
SQL> alter user test account unlock;
```

3. unlock 정보 확인

```
SQL> select username,account_status from dba_users;
USERNAME          ACCOUNT_STATUS
-----
MGMT_VIEW         OPEN
SYS              OPEN
SYSTEM           OPEN
DBSNMP           OPEN
SYSMAN           OPEN
TEST            OPEN
SCOTT           EXPIRED
OUTLN           EXPIRED & LOCKED
MDSYS           EXPIRED & LOCKED
ORDSYS          EXPIRED & LOCKED
CTXSYS          EXPIRED & LOCKED
```

4. 계정 패스워드 설정

```
SQL> ALTER USER test IDENTIFIED BY testuser!!!!;
```