

Centos7 预安装 Oracle11G

v2.0 操作指南

西安金箍棒信息技术服务有限公司

西安市碑林区雁塔北路 67 号红锋商务大厦 4 层

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一、商品说明

1、版本说明

此镜像为 Centos7.9 预安装 Oracle11G 版本，系统：CentOS，更新时间 2024 年 8 月。您可以一键快速搭建自己的 Oracle11g 数据库。

2、安全加固

为进一步提升云服务的安全性，我公司对镜像产品实施了全面的安全加固，共计完成 88 项基线加固措施。这些精细化的安全改进，不仅确保我们的镜像产品严格符合等保 2.0 的安全标准，更在防御外部攻击、内部漏洞修复、数据加密保护等多个安全维度上实现了显著增强，为您的数据的安全存储与业务的平稳运行提供坚实保障。选择我们的镜像产品，意味着您将获得一个经过深度安全加固、符合高标准安全要求的云端解决方案，让您的业务在安全的护航下稳健运行。

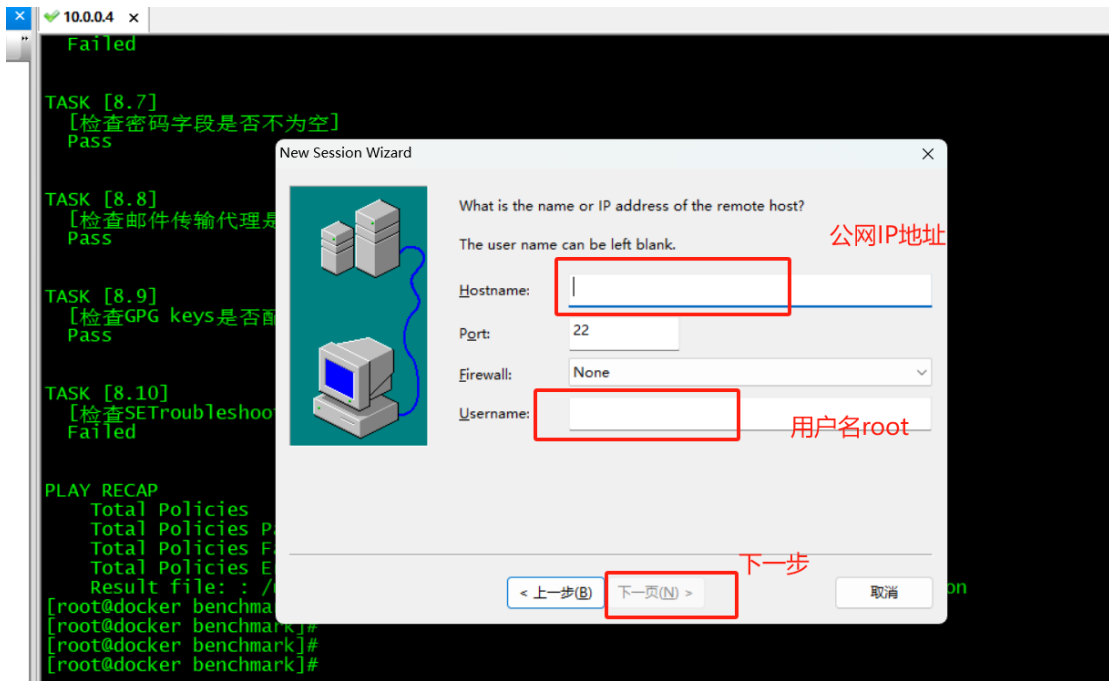
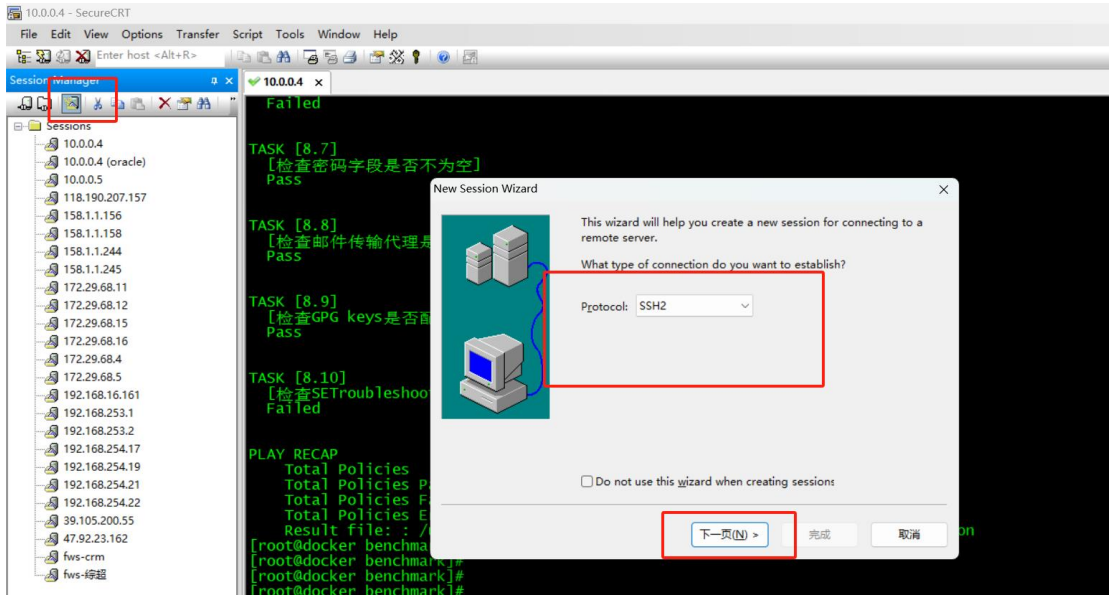
如您的业务环境有其他安全需求，请与客服联系，我们可为您提供一对一定制服务。

二、操作指南

1、登录服务器

使用（Crt、putty、xshell 等远程工具进行链接）。

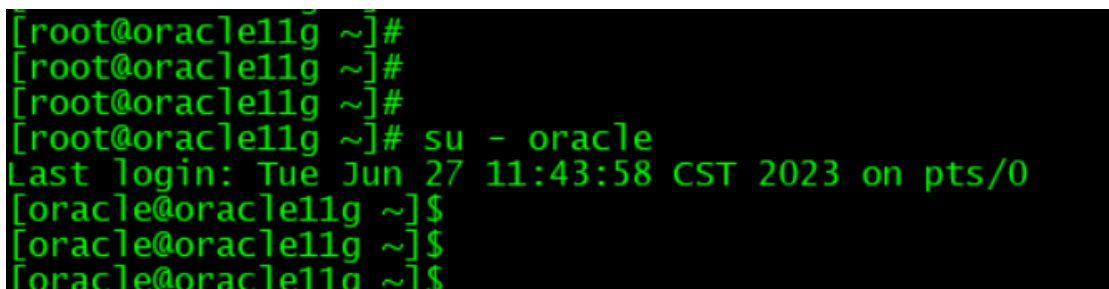
选择 ssh 协议、输入公网地址以及账户名密码，进行远程链接。



双击链接即可

使用 root 用户，切换到 oracle 用户

su - oracle



2、启动监听、启动数据库。

lsnrctl start

```
[oracle@oracle11g ~]$ lsnrctl start
LSNRCTL for Linux: Version 11.2.0.4.0 - Production on 09-AUG-2024 09:56:29
Copyright (c) 1991, 2013, Oracle. All rights reserved.
Starting /u01/app/oracle/product/11.2.0/db_1/bin/tnslsnr: please wait...
TNSLSNR for Linux: Version 11.2.0.4.0 - Production
System parameter file is /u01/app/oracle/product/11.2.0/db_1/network/admin/listener.ora
Log messages written to /u01/app/diag/tnslsnr/oracle11g/listener/alert/log.xml
Listening on: (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=oracle11g)(PORT=1521)))
Listening on: (DESCRIPTION=(ADDRESS=(PROTOCOL=ipc)(KEY=EXTPROC1521)))

Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=oracle11g)(PORT=1521)))
STATUS of the LISTENER
-----
Alias                LISTENER
Version              TNSLSNR for Linux: Version 11.2.0.4.0 - Production
Start Date           09-AUG-2024 09:56:29
Uptime               0 days 0 hr. 0 min. 0 sec
Trace Level          off
Security             ON: Local OS Authentication
SNMP                 OFF
Listener Parameter File /u01/app/oracle/product/11.2.0/db_1/network/admin/listener.ora
Listener Log File    /u01/app/diag/tnslsnr/oracle11g/listener/alert/log.xml
Listening Endpoints Summary...
  (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=oracle11g)(PORT=1521)))
  (DESCRIPTION=(ADDRESS=(PROTOCOL=ipc)(KEY=EXTPROC1521)))
The listener supports no services
The command completed successfully
```

sqlplus / as sysdba

sql>startup

sql>exit

```
[oracle@oracle11g ~]$ sqlplus / as sysdba
SQL*Plus: Release 11.2.0.4.0 Production on Fri Aug 9 10:00:45 2024
Copyright (c) 1982, 2013, Oracle. All rights reserved.
Connected to an idle instance.

SQL> startup
ORACLE instance started.

Total System Global Area 1586708480 bytes
Fixed Size                2253624 bytes
Variable Size             973081800 bytes
Database Buffers          603979776 bytes
Redo Buffers               7393280 bytes
Database mounted.
Database opened.
SQL>
```

3、查看数据库监听

lsnrctl status

```
[oracle@oracle11g ~]$ lsnrctl status
LSNRCTL for Linux: Version 11.2.0.4.0 - Production on 09-AUG-2024 10:05:33
Copyright (c) 1991, 2013, Oracle. All rights reserved.
Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=oracle11g)(PORT=1521)))
STATUS of the LISTENER
-----
Alias                LISTENER
Version              TNSLSNR for Linux: Version 11.2.0.4.0 - Production
Start Date           09-AUG-2024 09:56:29
Uptime               0 days 0 hr. 9 min. 3 sec
Trace Level          off
Security              ON: Local OS Authentication
SNMP                 OFF
Listener Parameter File  /u01/app/oracle/product/11.2.0/db_1/network/admin/listener.ora
Listener Log File     /u01/app/diag/tnslsnr/oracle11g/listener/alert/log.xml
Listening Endpoints Summary...
  (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=oracle11g)(PORT=1521)))
  (DESCRIPTION=(ADDRESS=(PROTOCOL=ipc)(KEY=EXTPROC1521)))
Services Summary...
Service "orcl" has 1 instance(s).
  Instance "orcl", status READY, has 1 handler(s) for this service...
Service "orclXDB" has 1 instance(s).
  Instance "orcl", status READY, has 1 handler(s) for this service...
The command completed successfully
[oracle@oracle11g ~]$
```

4、创建超级用户信息,并且测试链接,

后期使用 user1 进行管理链接

sqlplus / as sysdba

sql>create user user1 identified by user1;

sql>grant connect,resource,dba to user1;

sql>conn user1/user1

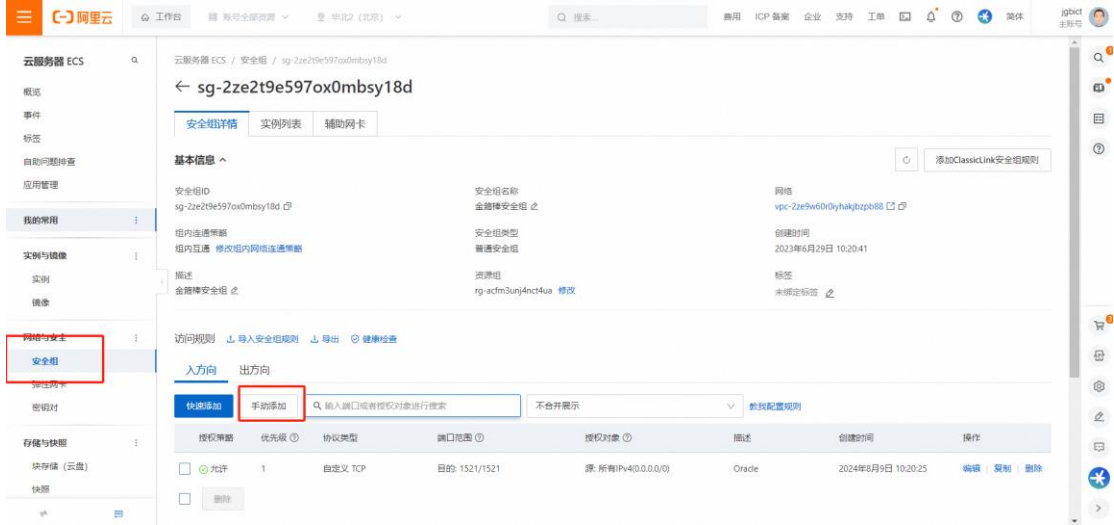
```
THE COMMAND COMPLETED SUCCESSFULLY
[oracle@oracle11g ~]$ sqlplus / as sysdba
SQL*Plus: Release 11.2.0.4.0 Production on Fri Aug 9 10:11:54 2024
Copyright (c) 1982, 2013, Oracle. All rights reserved.

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> create user user1 identified by user1;
User created.
SQL> grant connect,resource,dba to user1;
Grant succeeded.
SQL> conn user1/user1
Connected.
SQL>
```

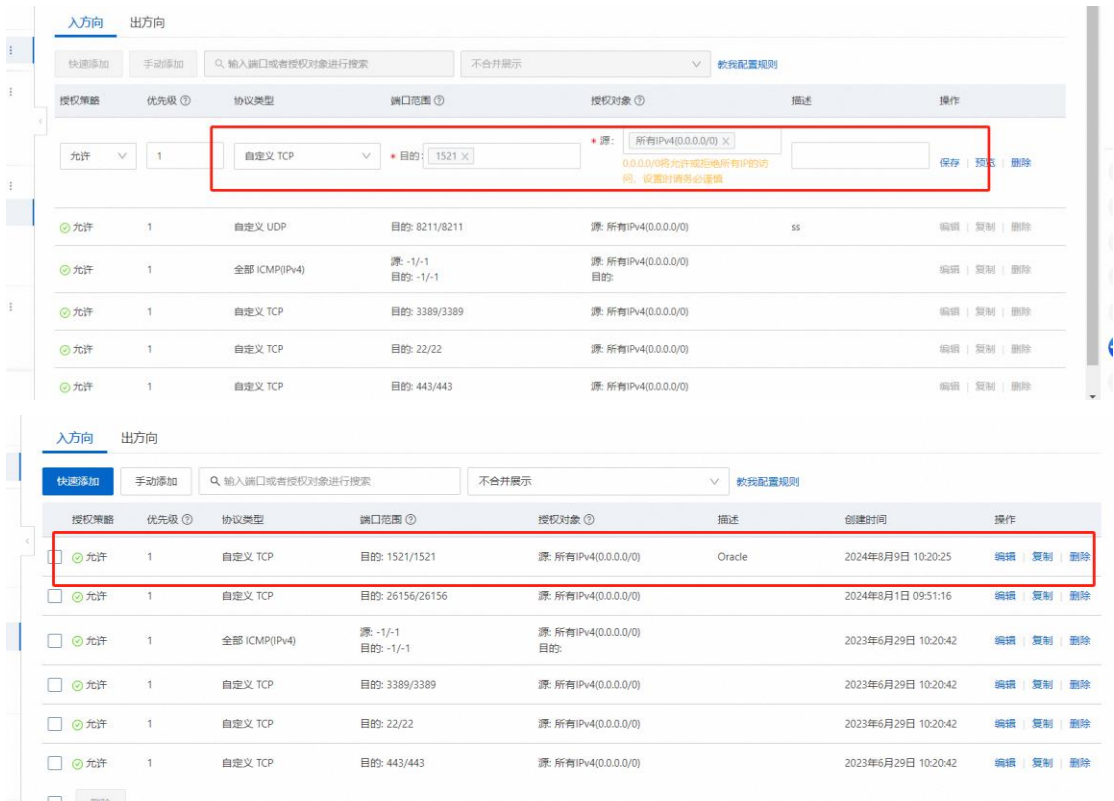
```
SQL> show user
USER is "USER1"
SQL>
```

5、安全组添加 1521 端口

点击阿里云 ecs，点击安全组，入方向，手动添加



允许 TCP、端口 1521、允许所有 IPv4, 保存即可。



6、配置说明

超级用户密码为：sys 密码：oracle

```

[oracle@oracle11g ~]$
[oracle@oracle11g ~]$ sqlplus sys/oracle as sysdba

SQL*Plus: Release 11.2.0.4.0 Production on Fri Aug 16 14:57:43 2024

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>
SQL>
SQL> show user;
USER is "SYS"
SQL>
SQL>
    
```

软件安装位置:

\$ORACLE_BASE /u01/app

\$ORACLE_HOME /u01/app/oracle/product/11.2.0/db_1

```

[oracle@oracle11g ~]$
[oracle@oracle11g ~]$ echo $ORACLE_BASE
/u01/app
[oracle@oracle11g ~]$
[oracle@oracle11g ~]$ echo $ORACLE_HOME
/u01/app/oracle/product/11.2.0/db_1
[oracle@oracle11g ~]$ cd $ORACLE_BASE
[oracle@oracle11g app]$ ll
total 0
drwxr-x--- 3 oracle oinstall 18 Jun 26 2023 admin
drwxr-xr-x 6 oracle oinstall 60 Jun 26 2023 cfgtoollogs
drwxr-xr-x 2 oracle oinstall 6 Jun 26 2023 checkpoints
drwxrwxr-x 11 oracle oinstall 128 Jun 26 2023 diag
drwxr-xr-x 3 oracle oinstall 21 Jun 26 2023 oracle
drwxr-xr-x 3 oracle oinstall 18 Jun 26 2023 oradata
[oracle@oracle11g app]$ cd $ORACLE_HOME
[oracle@oracle11g db_1]$ ll
total 48
drwxr-xr-x 8 oracle oinstall 4096 Jun 26 2023 apex
drwxr-xr-x 8 oracle oinstall 81 Jun 26 2023 assistants
drwxr-xr-x 2 oracle oinstall 12288 Jun 26 2023 bin
drwxr-xr-x 7 oracle oinstall 70 Jun 26 2023 ccr
drwxr-xr-x 3 oracle oinstall 23 Jun 26 2023 cdata
drwxr-xr-x 4 oracle oinstall 30 Jun 26 2023 cfgtoollogs
drwxr-xr-x 4 oracle oinstall 171 Jun 26 2023 clone
drwxr-xr-x 2 oracle oinstall 6 Jun 26 2023 config
drwxr-xr-x 6 oracle oinstall 55 Jun 26 2023 crs
drwxr-xr-x 3 oracle oinstall 18 Jun 26 2023 csmig
drwxr-xr-x 6 oracle oinstall 53 Jun 26 2023 css
drwxr-xr-x 10 oracle oinstall 105 Jun 26 2023 ctx
drwxr-xr-x 7 oracle oinstall 71 Jun 26 2023 cv
drwxr-xr-x 2 oracle oinstall 94 Aug 16 14:57 dbs
drwxr-xr-x 2 oracle oinstall 32 Jun 26 2023 dc_ocm
    
```

软件常用命令:

查看监听

lsnrctl status


```
[oracle@oracle11g db_1]$ lsnrctl status
LSNRCTL for Linux: Version 11.2.0.4.0 - Production on 16-AUG-2024 15:02:00
Copyright (c) 1991, 2013, Oracle. All rights reserved.

Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=oracle11g)(PORT=1521)))
STATUS of the LISTENER
-----
Alias                     LISTENER
Version                   TNSLSNR for Linux: Version 11.2.0.4.0 - Production
Start Date                16-AUG-2024 14:57:03
Uptime                    0 days 0 hr. 4 min. 56 sec
Trace Level               off
Security                  ON: Local OS Authentication
SNMP                      OFF
Listener Parameter File   /u01/app/oracle/product/11.2.0/db_1/network/admin/listener.ora
Listener Log File         /u01/app/diag/tnslsnr/oracle11g/listener/alert/log.xml
Listening Endpoints Summary...
  (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=oracle11g)(PORT=1521)))
  (DESCRIPTION=(ADDRESS=(PROTOCOL=ipc)(KEY=EXTPROC1521)))
Services Summary...
Service "orcl" has 1 instance(s).
  Instance "orcl", status READY, has 1 handler(s) for this service...
Service "orclXDB" has 1 instance(s).
  Instance "orcl", status READY, has 1 handler(s) for this service...
The command completed successfully
[oracle@oracle11g db_1]$
```

关闭监听

lsnrctl stop

```
[oracle@oracle11g db_1]$
[oracle@oracle11g db_1]$
[oracle@oracle11g db_1]$ lsnrctl stop
LSNRCTL for Linux: Version 11.2.0.4.0 - Production on 16-AUG-2024 15:02:35
Copyright (c) 1991, 2013, Oracle. All rights reserved.

Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=oracle11g)(PORT=1521)))
The command completed successfully
[oracle@oracle11g db_1]$
[oracle@oracle11g db_1]$
[oracle@oracle11g db_1]$
```

启动监听

lsnrctl start

```
[oracle@oracle11g ~]$
[oracle@oracle11g ~]$ lsnrctl start
LSNRCTL for Linux: Version 11.2.0.4.0 - Production on 16-AUG-2024 14:57:01
Copyright (c) 1991, 2013, Oracle. All rights reserved.

Starting /u01/app/oracle/product/11.2.0/db_1/bin/tnslsnr: please wait...

TNSLSNR for Linux: Version 11.2.0.4.0 - Production
System parameter file is /u01/app/oracle/product/11.2.0/db_1/network/admin/listener.ora
Log messages written to /u01/app/diag/tnslsnr/oracle11g/listener/alert/log.xml
Listening on: (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=oracle11g)(PORT=1521)))
Listening on: (DESCRIPTION=(ADDRESS=(PROTOCOL=ipc)(KEY=EXTPROC1521)))

Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=oracle11g)(PORT=1521)))
STATUS of the LISTENER
-----
Alias                     LISTENER
Version                   TNSLSNR for Linux: Version 11.2.0.4.0 - Production
Start Date                16-AUG-2024 14:57:03
Uptime                    0 days 0 hr. 0 min. 0 sec
Trace Level               off
Security                  ON: Local OS Authentication
SNMP                      OFF
Listener Parameter File   /u01/app/oracle/product/11.2.0/db_1/network/admin/listener.ora
Listener Log File         /u01/app/diag/tnslsnr/oracle11g/listener/alert/log.xml
Listening Endpoints Summary...
  (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=oracle11g)(PORT=1521)))
  (DESCRIPTION=(ADDRESS=(PROTOCOL=ipc)(KEY=EXTPROC1521)))
The listener supports no services
The command completed successfully
```

启动数据库

```
sqlplus / as sysdba
```

```
startup
```

```
[oracle@oracle11g ~]$ sqlplus / as sysdba
SQL*Plus: Release 11.2.0.4.0 Production on Fri Aug 16 14:57:06 2024
Copyright (c) 1982, 2013, Oracle. All rights reserved.
Connected to an idle instance.

SQL> startup
ORACLE instance started.

Total System Global Area 1586708480 bytes
Fixed Size 2253624 bytes
Variable Size 973081800 bytes
Database Buffers 603979776 bytes
Redo Buffers 7393280 bytes
Database mounted.
Database opened.
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
```

关闭数据库

```
shutdown immediate
```

```
exit
```

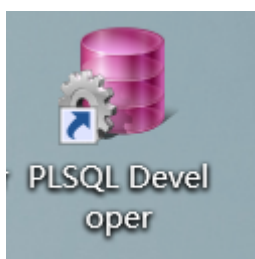
```
[oracle@oracle11g db_1]$ sqlplus / as sysdba
SQL*Plus: Release 11.2.0.4.0 Production on Fri Aug 16 15:04:52 2024
Copyright (c) 1982, 2013, Oracle. All rights reserved.

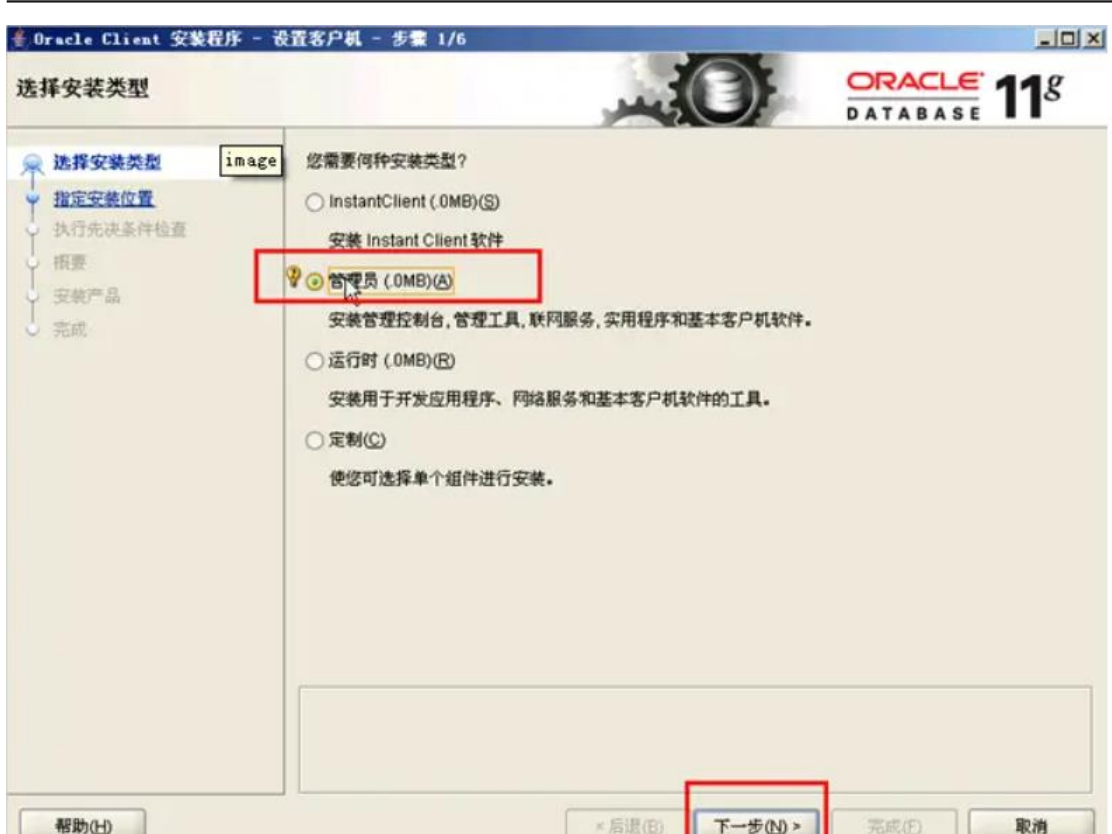
Connected to:
Oracle Database 11g Enterprise Edition Release 11.2.0.4.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options

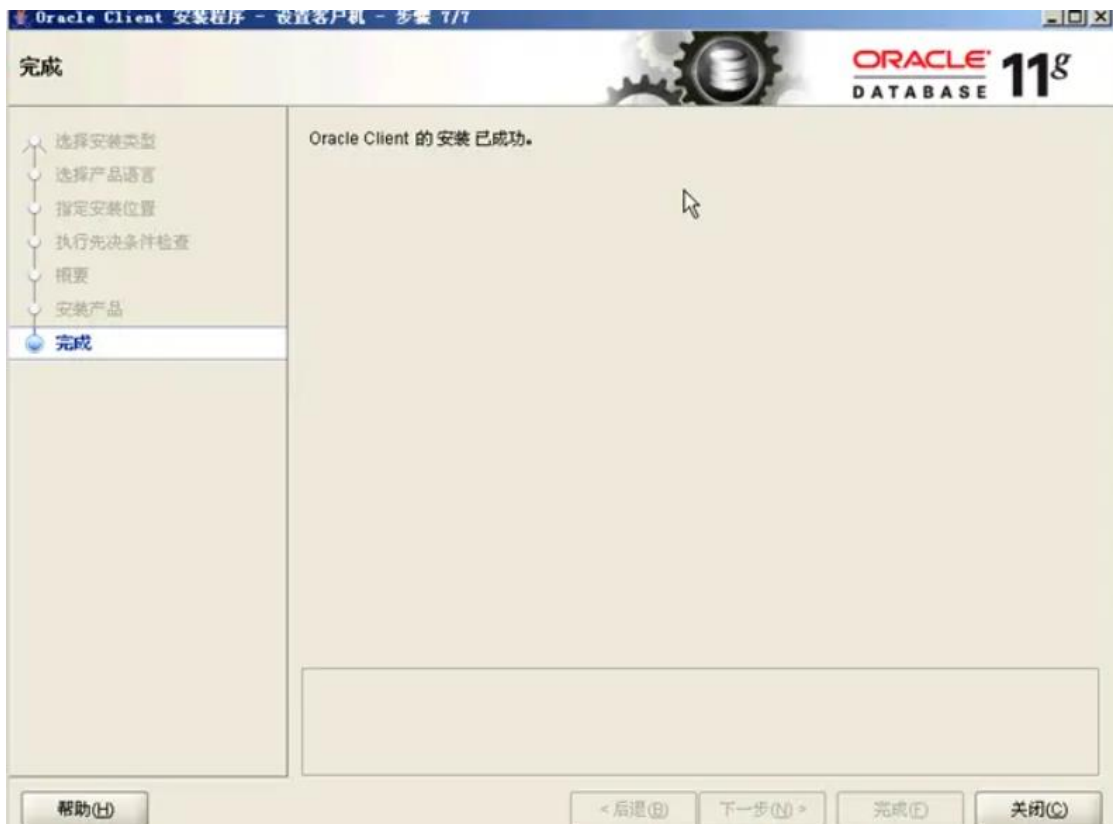
SQL>
SQL>
SQL> shutdown immediate
Database closed.
Database dismounted.
ORACLE instance shut down.
SQL>
SQL>
SQL> exit
Disconnected from Oracle Database 11g Enterprise Edition Release 11.2.0.4.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options
[oracle@oracle11g db_1]$
```

客户端链接

window 可以使用 PL/SQL Developer 软件，但是必须安装 Oracle 客户端程序才能链接，

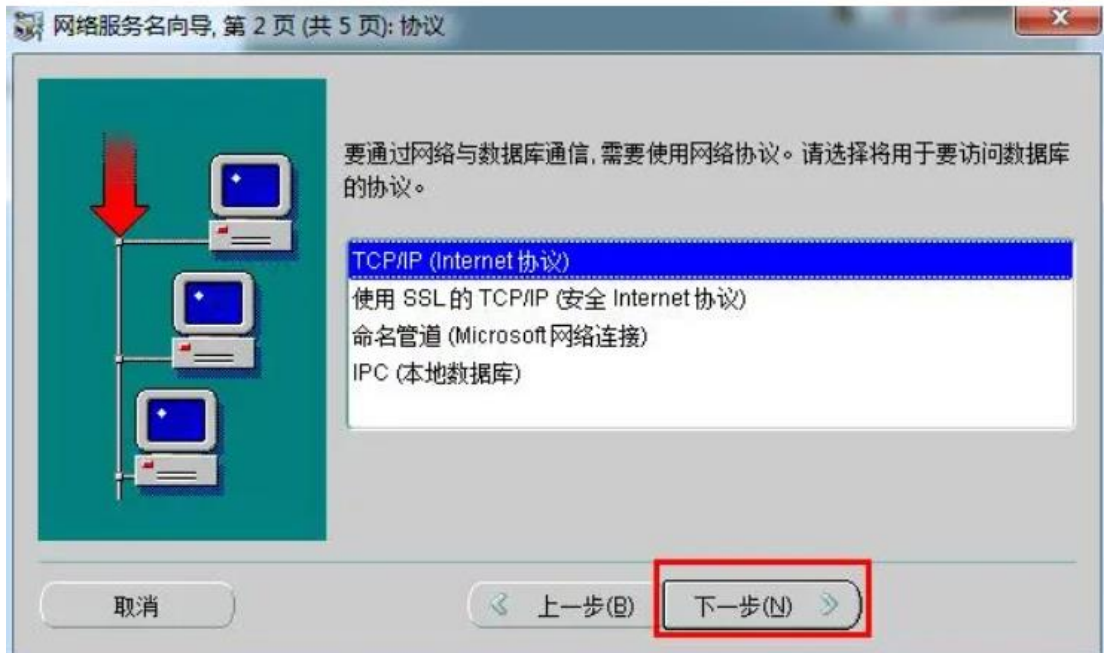


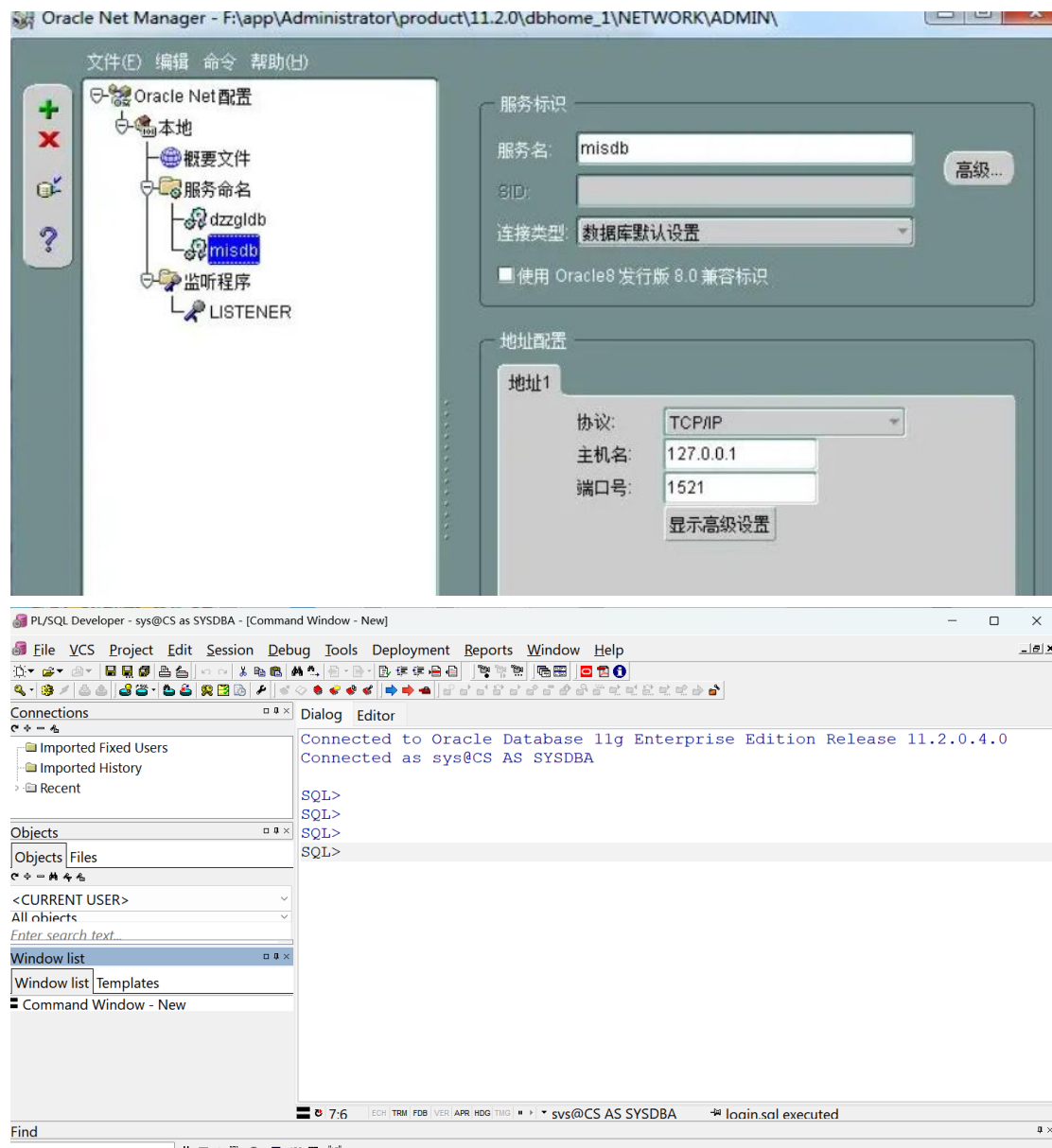




在原版客户端上添加“数据库服务器配置信息”







7、日常数据库排错

首先查看数据库得告警日志，是否有明显问题。

```
cd /u01/app/diag/rdbms/orcl/orcl/trace
```

```
tail -f alert_orcl.log
```

```
[oracle@oracle11g ~]$ cd $ORACLE_BASE/diag/rdbms/
[oracle@oracle11g rdbms]$ pwd
/u01/app/diag/rdbms
[oracle@oracle11g rdbms]$ ll
total 0
drwxr-x--- 3 oracle oinstall 33 Jun 26 2023 orcl
[oracle@oracle11g rdbms]$ cd orcl/orcl/trace/
[oracle@oracle11g trace]$ ll
total 572
-rw-r----- 1 oracle oinstall 53985 Aug 16 15:13 alert_orcl.log
-rw-r----- 1 oracle oinstall 1210 Jun 26 2023 orcl_cjq0_29722.trc
-rw-r----- 1 oracle oinstall 85 Jun 26 2023 orcl_cjq0_29722.trm
-rw-r----- 1 oracle oinstall 1251 Jun 26 2023 orcl_dbrm_17548.trc
-rw-r----- 1 oracle oinstall 80 Jun 26 2023 orcl_dbrm_17548.trm
-rw-r----- 1 oracle oinstall 1249 Jun 27 2023 orcl_dbrm_2004.trc
-rw-r----- 1 oracle oinstall 88 Jun 27 2023 orcl_dbrm_2004.trm
```

```
[oracle@oracle11g trace]$
[oracle@oracle11g trace]$ tail -f alert_orcl.log
Fri Aug 16 15:08:06 2024
QMNC started with pid=20, OS id=2331
Completed: ALTER DATABASE OPEN
Starting background process Cjq0
Fri Aug 16 15:08:06 2024
Cjq0 started with pid=21, OS id=2343
Fri Aug 16 15:13:06 2024
Starting background process SMC0
Fri Aug 16 15:13:06 2024
SMC0 started with pid=19, OS id=2414
```

然后查看操作系统日志, 是否有问题。

```
tail -f /var/log/messages
```

```
[root@oracle11g ~]# tail -f /var/log/messages
Aug 16 15:21:01 oracle11g rsyslogd: [origin software="rsyslogd" swVersion="8.24.0-55.e17" x-pid="1055" x-info="http://www.rsyslog.com"] rsyslogd was HUPed
Aug 16 15:22:02 oracle11g su: (to oracle) root on pts/0
Aug 16 15:22:02 oracle11g dbus[694]: [system] Activating service name='org.freedesktop.problems' (using servicehelper)
Aug 16 15:22:02 oracle11g dbus[694]: [system] Successfully activated service 'org.freedesktop.problems'
Aug 16 15:24:47 oracle11g smartd[685]: System clock time adjusted to the past. Resetting next wakeup time.
```

更详细错误需要查看官方文档手册, 以及现象来详细定位问题。

三、技术支持

1、售后服务

- (1) 您可以第一时间在阿里云市场联系售后获取服务。

- (2) 服务时间：09:00-18:00（紧急情况请打电话）
- (3) 服务热线：18091296777、4009030002 转 15953
- (4) 服务邮箱：22958288@qq.com

2、服务范围

远程支持：如果您在使用过程中遇到技术操作问题，请及时联系客服，我们的工程师可远程协助您完成操作。

定制服务：本公司支持一对一定制服务，如您的业务环境有特殊需求，请与客服联系。

付费服务：本公司可提供镜像部署、故障处理、安全运维代维等一站式托管服务，全面涵盖服务器环境配置，网站程序调试，数据库配置更改，数据库权限、账户，系统安全加固，故障排查，系统调优，数据库优化等范围。如您有相关需求，请咨询客服。