

Centos7 预安装 Oracle19C

v3.0 操作指南

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一、商品说明

1、版本说明

此镜像为 Centos7.9 预安装 Oracle19C 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 Oracle19C 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。

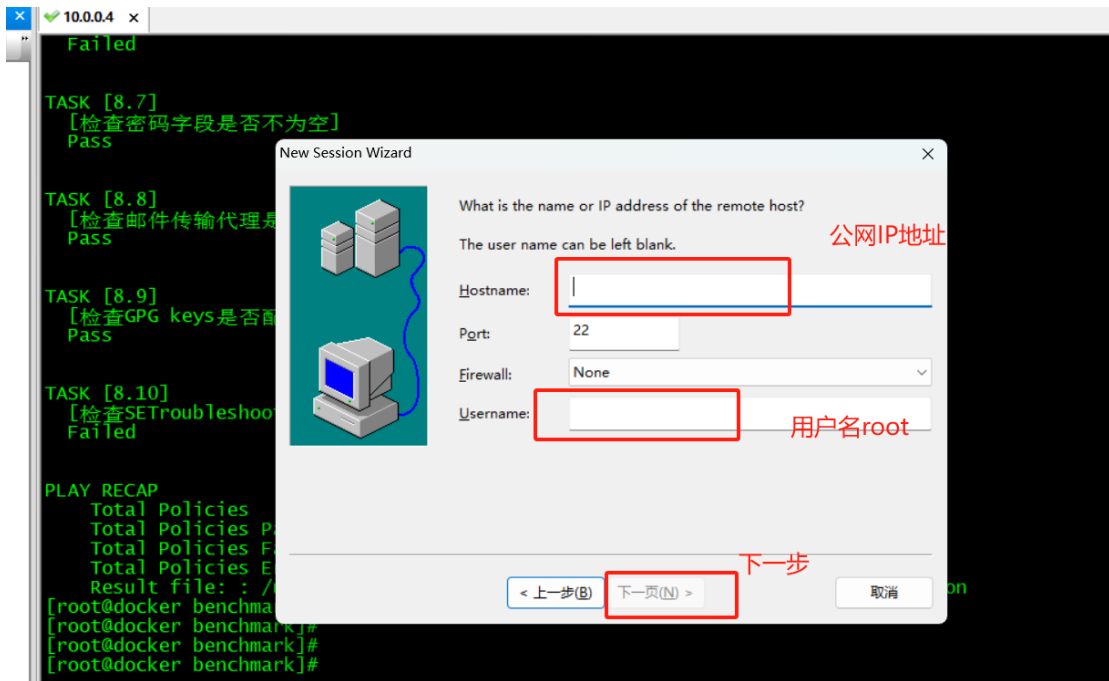
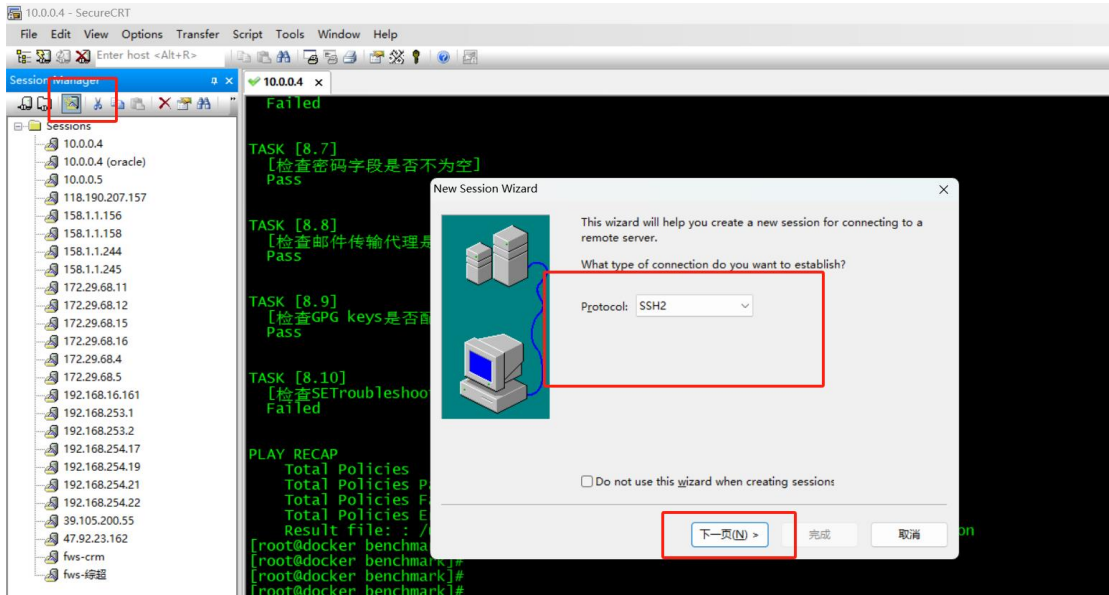
如您的业务环境有其他安全需求，请与客服联系，我们可为您提供一对一定制服务。

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）。

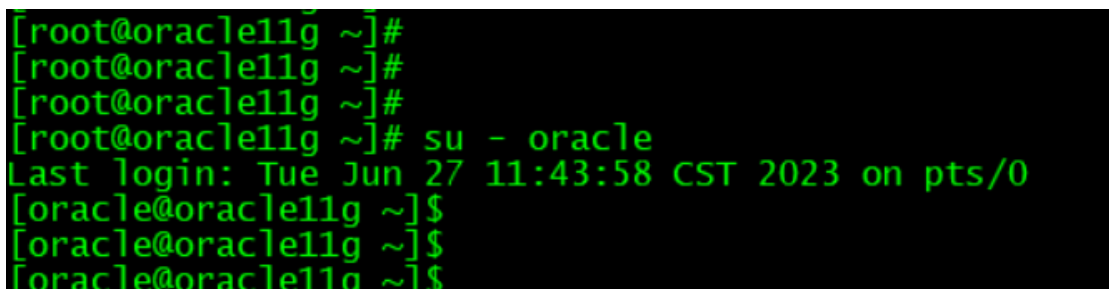
选择 ssh 协议、输入公网地址以及账户名密码，进行远程链接。



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@19c ~]$ lsnrctl start
LSNRCTL for Linux: Version 19.0.0.0.0 - Production on 29-AUG-2024 23:44:16
Copyright (c) 1991, 2019, Oracle. All rights reserved.
Starting /u01/app/oracle/19c/db_1/bin/tnslsnr: please wait...
TNSLSNR for Linux: Version 19.0.0.0.0 - Production
System parameter file is /u01/app/oracle/19c/db_1/network/admin/listener.ora
Log messages written to /u01/app/diag/tnslsnr/19c/listener/alert/log.xml
Listening on: (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=19c)(PORT=1521)))
Listening on: (DESCRIPTION=(ADDRESS=(PROTOCOL=ipc)(KEY=EXTPROC1521)))

Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=19c)(PORT=1521)))
STATUS of the LISTENER
-----
Alias                LISTENER
Version              TNSLSNR for Linux: Version 19.0.0.0.0 - Production
Start Date           29-AUG-2024 23:44:18
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/19c/db_1/network/admin/listener.ora
Listener Log File    /u01/app/diag/tnslsnr/19c/listener/alert/log.xml
Listening Endpoints Summary...
  (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=19c)(PORT=1521)))
  (DESCRIPTION=(ADDRESS=(PROTOCOL=ipc)(KEY=EXTPROC1521)))
The listener supports no services
The command completed successfully
[oracle@19c ~]$
```

sqlplus / as sysdba

sql>startup

sql>exit

```
[oracle@19c ~]$ sqlplus / as sysdba
SQL*Plus: Release 19.0.0.0.0 - Production on Thu Aug 29 23:44:51 2024
Version 19.3.0.0.0

Copyright (c) 1982, 2019, Oracle. All rights reserved.

Connected to an idle instance.

SQL> startup
ORACLE instance started.

Total System Global Area 2432695144 bytes
Fixed Size 8899432 bytes
Variable Size 536870912 bytes
Database Buffers 1879048192 bytes
Redo Buffers 7876608 bytes
Database mounted.
Database opened.
SQL> exit
Disconnected from Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
Version 19.3.0.0.0
[oracle@19c ~]$ █
```

3、查看数据库监听

lsnrctl status

```
[oracle@19c ~]$ lsnrctl status
LSNRCTL for Linux: Version 19.0.0.0.0 - Production on 29-AUG-2024 23:45:50
Copyright (c) 1991, 2019, Oracle. All rights reserved.
Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=19c)(PORT=1521)))
STATUS of the LISTENER
-----
Alias                LISTENER
Version              TNSLSNR for Linux: Version 19.0.0.0.0 - Production
Start Date           29-AUG-2024 23:44:18
Uptime                0 days 0 hr. 1 min. 31 sec
Trace Level          off
Security              ON: Local OS Authentication
SNMP                 OFF
Listener Parameter File /u01/app/oracle/19c/db_1/network/admin/listener.ora
Listener Log File    /u01/app/diag/tnslsnr/19c/listener/alert/log.xml
Listening Endpoints Summary...
  (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=19c)(PORT=1521)))
  (DESCRIPTION=(ADDRESS=(PROTOCOL=ipc)(KEY=EXTPROC1521)))
  (DESCRIPTION=(ADDRESS=(PROTOCOL=tcps)(HOST=19c)(PORT=5500))(Security=(my_wallet_directory=/u01/app/adn
))
Services Summary...
Service "test" has 1 instance(s).
  Instance "test", status READY, has 1 handler(s) for this service...
Service "testXDB" has 1 instance(s).
  Instance "test", status READY, has 1 handler(s) for this service...
The command completed successfully
[oracle@19c ~]$
```

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
```

```
[oracle@19c ~]$
[oracle@19c ~]$ sqlplus / as sysdba
SQL*Plus: Release 19.0.0.0.0 - Production on Thu Aug 29 23:46:17 2024
Version 19.3.0.0.0
Copyright (c) 1982, 2019, Oracle. All rights reserved.

Connected to:
Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
Version 19.3.0.0.0

SQL> create user user1 identified by user1;
User created.

SQL> grant connect,resource,dba to user1;
Grant succeeded.

SQL> conn user1/user1
Connected.
SQL>
```

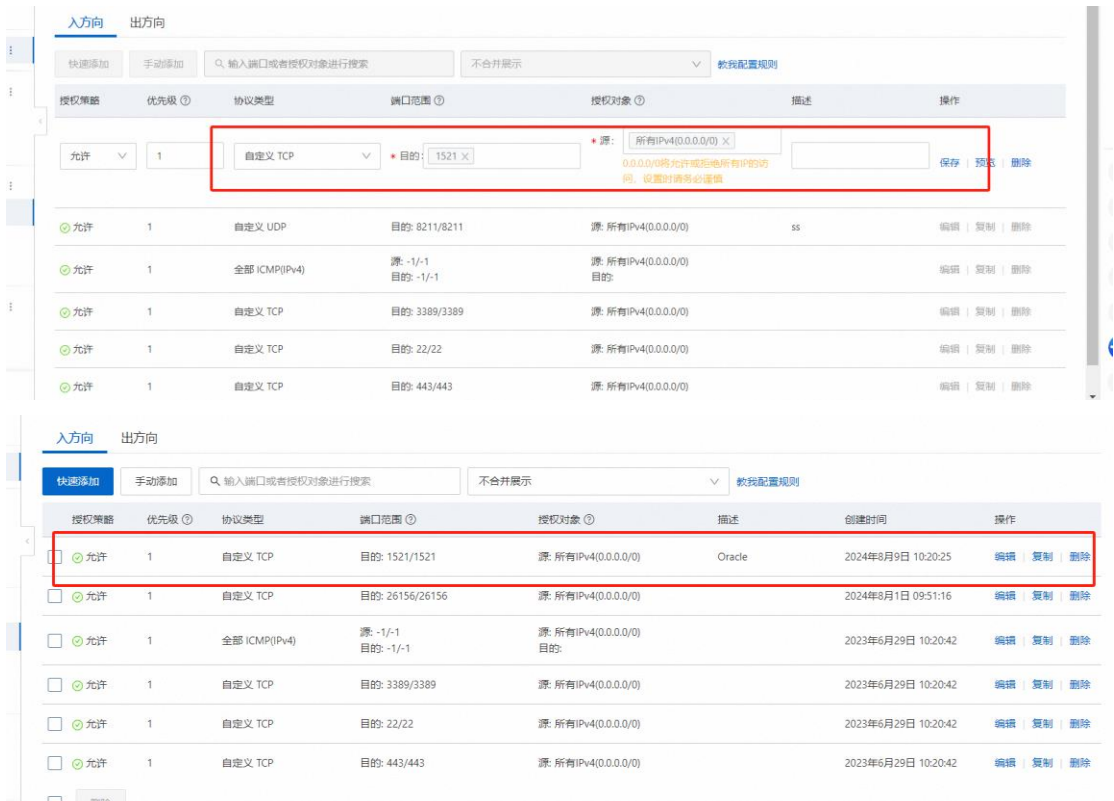
```
SQL> show user
USER is "USER1"
SQL>
```

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@19c ~]$
[oracle@19c ~]$ sqlplus sys/oracle as sysdba

SQL*Plus: Release 19.0.0.0.0 - Production on Thu Aug 29 23:48:16 2024
Version 19.3.0.0.0

Copyright (c) 1982, 2019, Oracle. All rights reserved.

Connected to:
Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
Version 19.3.0.0.0

SQL> show user;
USER is "SYS"
SQL> █

```

软件安装位置:

\$ORACLE_BASE /u01/app

\$ORACLE_HOME /u01/app/oracle/19c/db_1

```

total 0
[oracle@19c ~]$ cd $ORACLE_BASE
[oracle@19c app]$ ll
total 4
drwxr-x--- 3 oracle oinstall 18 Jul 25 2023 admin
drwxr-x--- 3 oracle oinstall 18 Jul 25 2023 audit
drwxr-x--- 5 oracle oinstall 47 Jul 25 2023 cfgtoollogs
drwxr-xr-x 2 oracle oinstall 6 Jul 25 2023 checkpoints
drwxrwxr-x 23 oracle oinstall 4096 Jul 25 2023 diag
drwxrwxrwx 3 oracle oinstall 17 Jul 25 2023 oracle
drwxr-x--- 3 oracle oinstall 18 Jul 25 2023 oradata
[oracle@19c app]$ cd $ORACLE_HOME
[oracle@19c db_1]$ ll
total 104
drwxr-xr-x 2 oracle oinstall 102 Jul 25 2023 addnode
drwxr-xr-x 6 oracle oinstall 4096 Apr 17 2019 apex
drwxr-xr-x 9 oracle oinstall 93 Apr 17 2019 assistants
drwxr-xr-x 2 oracle oinstall 8192 Jul 25 2023 bin
drwxr-xr-x 4 oracle oinstall 30 Jul 25 2023 cfgtoollogs
drwxr-xr-x 4 oracle oinstall 87 Jul 25 2023 clone
drwxr-xr-x 6 oracle oinstall 55 Apr 17 2019 crs
drwxr-xr-x 3 oracle oinstall 18 Apr 17 2019 css
drwxr-xr-x 11 oracle oinstall 119 Apr 17 2019 ctx
drwxr-xr-x 7 oracle oinstall 71 Apr 17 2019 cv
drwxr-xr-x 3 oracle oinstall 20 Apr 17 2019 data
drwxr-xr-x 3 oracle oinstall 19 Apr 17 2019 dbjava
drwxr-xr-x 2 oracle oinstall 94 Aug 29 23:47 dbs
drwxr-xr-x 5 oracle oinstall 4096 Jul 25 2023 deinstall
drwxr-xr-x 3 oracle oinstall 20 Apr 17 2019 demo
drwxr-xr-x 3 oracle oinstall 20 Apr 17 2019 diagnostics
drwxr-xr-x 13 oracle oinstall 4096 Apr 17 2019 dmu
drwxr-xr-x 4 oracle oinstall 30 Apr 17 2019 drdaas
drwxr-xr-x 3 oracle oinstall 19 Apr 17 2019 dv
-rw-r--r-- 1 oracle oinstall 852 Aug 18 2015 env.ora
drwxr-xr-x 3 oracle oinstall 18 Apr 17 2019 has

```

软件常用命令:

查看监听

lsnrctl status


```
[oracle@19c ~]$ lsnrctl status
LSNRCTL for Linux: Version 19.0.0.0.0 - Production on 29-AUG-2024 23:45:50
Copyright (c) 1991, 2019, Oracle. All rights reserved.
Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=19c)(PORT=1521)))
STATUS of the LISTENER
-----
Alias                LISTENER
Version              TNSLSNR for Linux: Version 19.0.0.0.0 - Production
Start Date           29-AUG-2024 23:44:18
Uptime               0 days 0 hr. 1 min. 31 sec
Trace Level          off
Security             ON: Local OS Authentication
SNMP                 OFF
Listener Parameter File /u01/app/oracle/19c/db_1/network/admin/listener.ora
Listener Log File    /u01/app/diag/tnslsnr/19c/listener/alert/log.xml
Listening Endpoints Summary...
  (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=19c)(PORT=1521)))
  (DESCRIPTION=(ADDRESS=(PROTOCOL=ipc)(KEY=EXTPROC1521)))
  (DESCRIPTION=(ADDRESS=(PROTOCOL=tcps)(HOST=19c)(PORT=5500))(Security=(my_wallet_directory=/u01/app/ad
))
Services Summary...
Service "test" has 1 instance(s).
  Instance "test", status READY, has 1 handler(s) for this service...
Service "testXDB" has 1 instance(s).
  Instance "test", status READY, has 1 handler(s) for this service...
The command completed successfully
[oracle@19c ~]$
```

关闭监听

```
lsnrctl stop
```

```
[oracle@19c db_1]$
[oracle@19c db_1]$ lsnrctl stop
LSNRCTL for Linux: Version 19.0.0.0.0 - Production on 29-AUG-2024 23:50:34
Copyright (c) 1991, 2019, Oracle. All rights reserved.
Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=19c)(PORT=1521)))
The command completed successfully
[oracle@19c db_1]$
[oracle@19c db_1]$
[oracle@19c db_1]$
[oracle@19c db_1]$ lsnrctl status
LSNRCTL for Linux: Version 19.0.0.0.0 - Production on 29-AUG-2024 23:50:38
Copyright (c) 1991, 2019, Oracle. All rights reserved.
Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=19c)(PORT=1521)))
TNS-12541: TNS:no listener
TNS-12560: TNS:protocol adapter error
TNS-00511: No listener
Linux Error: 111: Connection refused
Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=IPC)(KEY=EXTPROC1521)))
TNS-12541: TNS:no listener
TNS-12560: TNS:protocol adapter error
TNS-00511: No listener
Linux Error: 2: No such file or directory
[oracle@19c db_1]$
```

启动监听

```
lsnrctl start
```

```
[oracle@19c db_1]$ lsnrctl start

LSNRCTL for Linux: Version 19.0.0.0.0 - Production on 29-AUG-2024 23:50:58
Copyright (c) 1991, 2019, Oracle. All rights reserved.

Starting /u01/app/oracle/19c/db_1/bin/tnslsnr: please wait...

TNSLSNR for Linux: Version 19.0.0.0.0 - Production
System parameter file is /u01/app/oracle/19c/db_1/network/admin/listener.ora
Log messages written to /u01/app/diag/tnslsnr/19c/listener/alert/log.xml
Listening on: (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=19c)(PORT=1521)))
Listening on: (DESCRIPTION=(ADDRESS=(PROTOCOL=ipc)(KEY=EXTPROC1521)))

Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=19c)(PORT=1521)))
STATUS of the LISTENER
-----
Alias                     LISTENER
Version                   TNSLSNR for Linux: Version 19.0.0.0.0 - Production
Start Date                29-AUG-2024 23:50:58
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/19c/db_1/network/admin/listener.ora
Listener Log File        /u01/app/diag/tnslsnr/19c/listener/alert/log.xml
Listening Endpoints Summary...
  (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=19c)(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@19c ~]$ sqlplus / as sysdba

SQL*Plus: Release 19.0.0.0.0 - Production on Thu Aug 29 23:44:51 2024
Version 19.3.0.0.0

Copyright (c) 1982, 2019, Oracle. All rights reserved.

Connected to an idle instance.

SQL> startup
ORACLE instance started.

Total System Global Area 2432695144 bytes
Fixed Size 8899432 bytes
Variable Size 536870912 bytes
Database Buffers 1879048192 bytes
Redo Buffers 7876608 bytes
Database mounted.
Database opened.
SQL> exit
Disconnected from Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
Version 19.3.0.0.0
[oracle@19c ~]$ █
```

关闭数据库

shutdown immediate

exit

```
The command completed successfully
[oracle@19c db_1]$ sqlplus / as sysdba

SQL*Plus: Release 19.0.0.0.0 - Production on Thu Aug 29 23:51:23 2024
Version 19.3.0.0.0

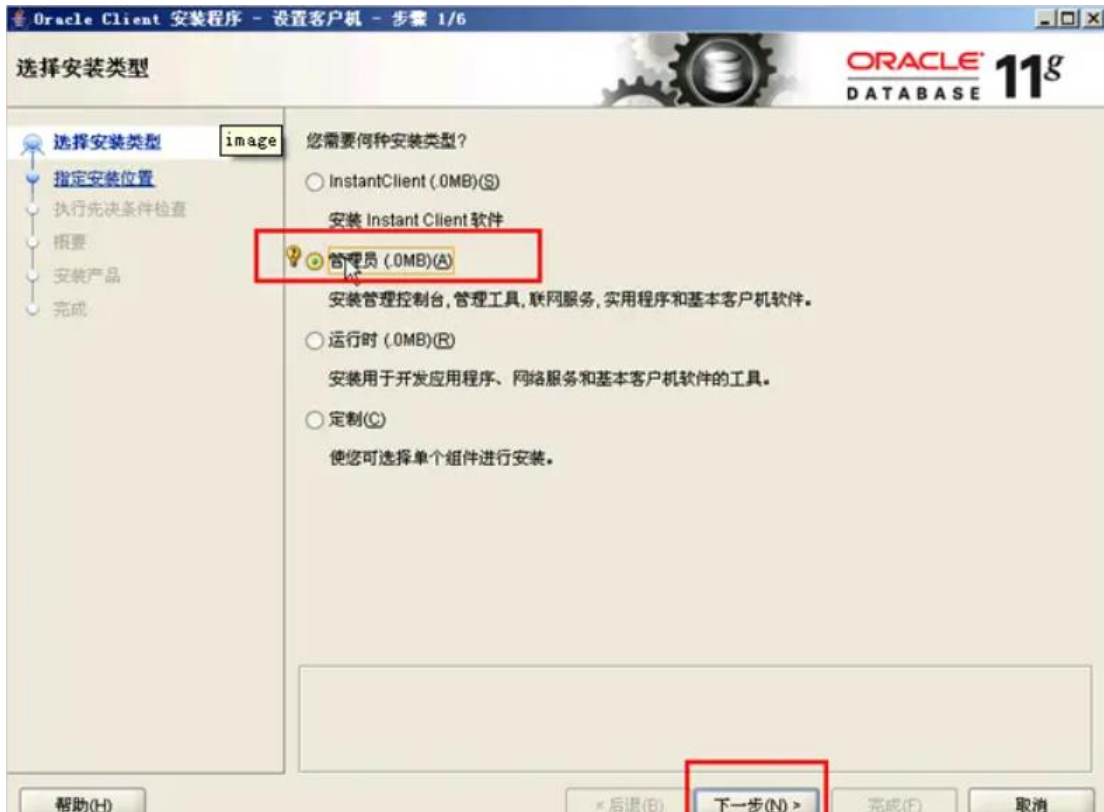
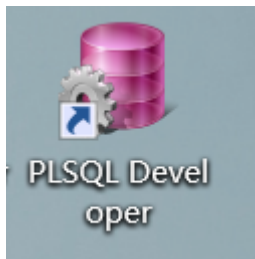
Copyright (c) 1982, 2019, Oracle. All rights reserved.

Connected to:
Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
Version 19.3.0.0.0

SQL> shutdown immediate
Database closed.
Database dismounted.
ORACLE instance shut down.
SQL>
SQL>
SQL>
SQL> exit
Disconnected from Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
Version 19.3.0.0.0
```

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，

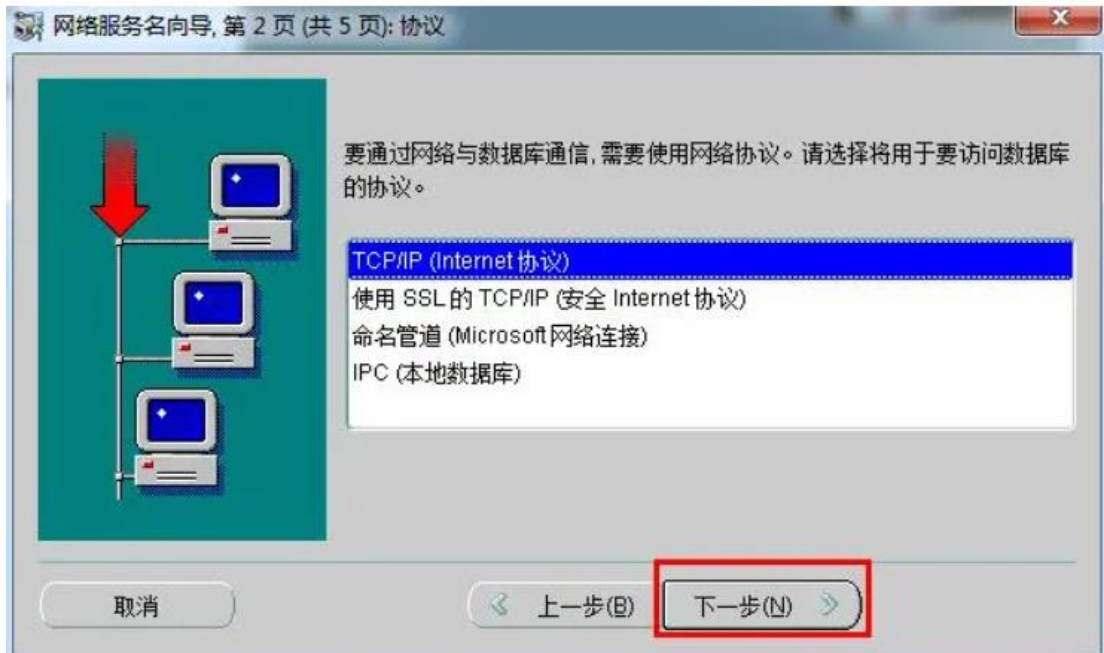
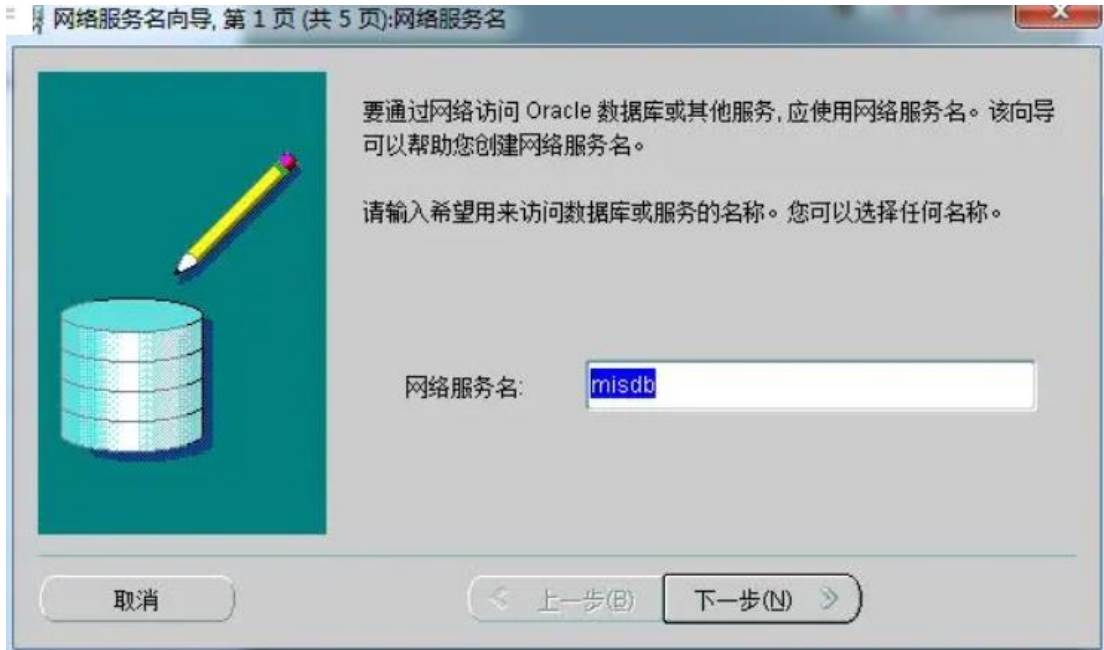


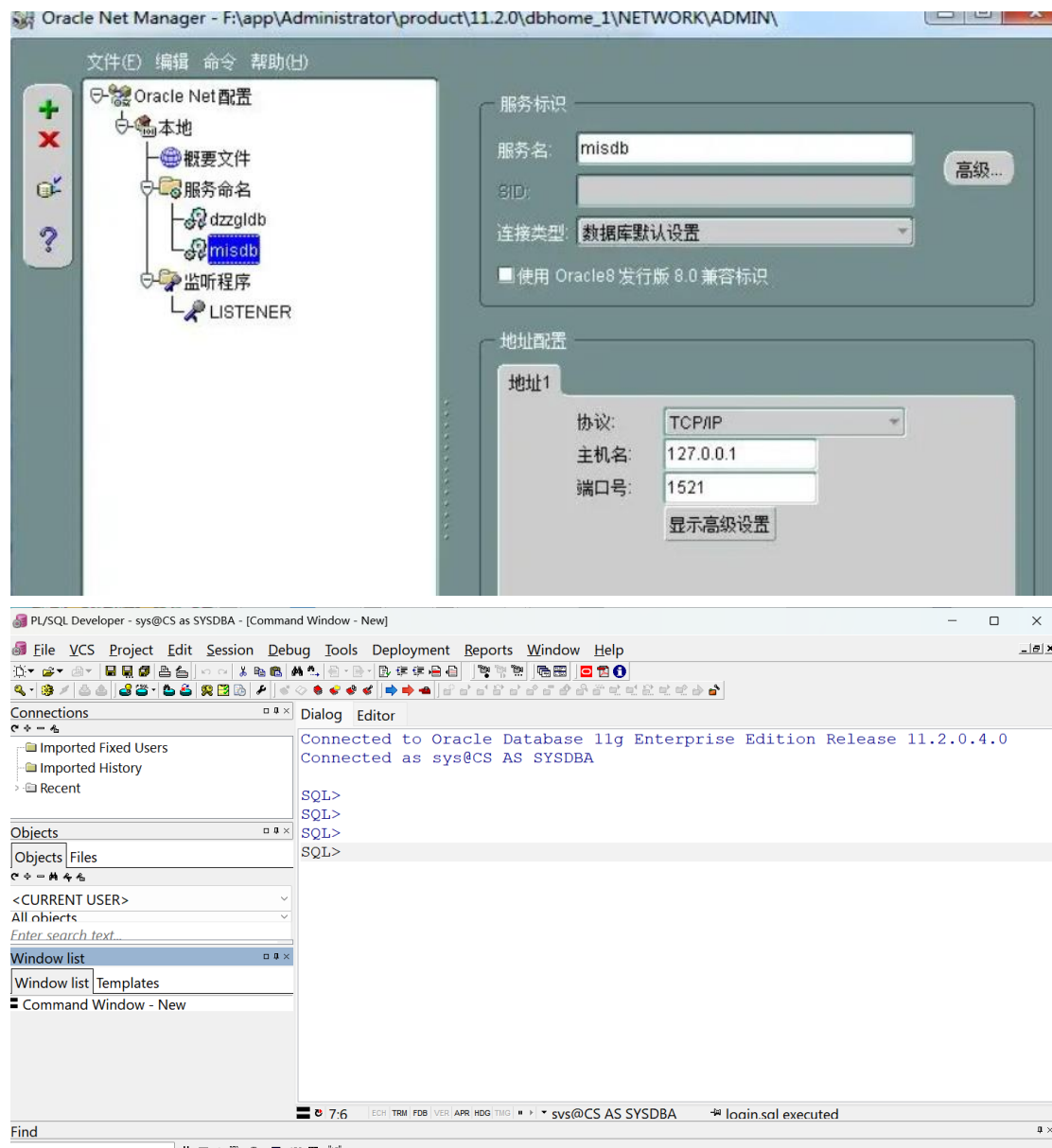




在原版客户端上添加“数据库服务器配置信息”







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 $ORACLE_BASE/diag/rdbms/test/test/trace
```

```
tail -f alert_test.log
```



```
[oracle@19c db_1]$  
[oracle@19c db_1]$  
[oracle@19c db_1]$ cd $ORACLE_BASE/diag/rdbms/test/test/trace  
[oracle@19c trace]$ tail -f alert_test.log  
JIT: pid 2892 requesting stop  
.... (PID:2892): Archival disabled due to shutdown: 1089  
Shutting down archive processes  
Archiving is disabled  
2024-08-29T23:51:49.308688+08:00  
Stopping background process VKTM  
2024-08-29T23:51:49.344836+08:00  
JIT: pid 2892 requesting stop  
2024-08-29T23:51:58.891899+08:00  
Instance shutdown complete (OS id: 2892)  
  
AC  
[oracle@19c trace]$
```

然后查看操作系统日志, 是否有问题。

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

```
[root@oracle11g ~]#  
[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。