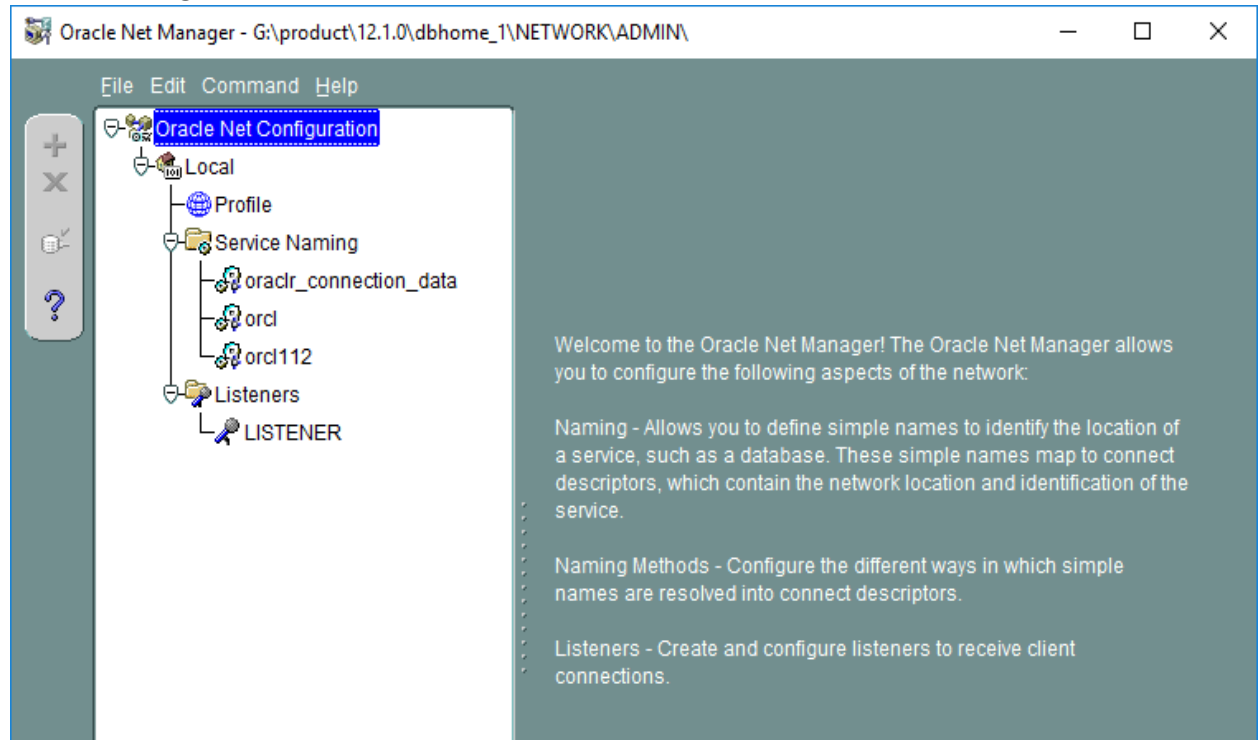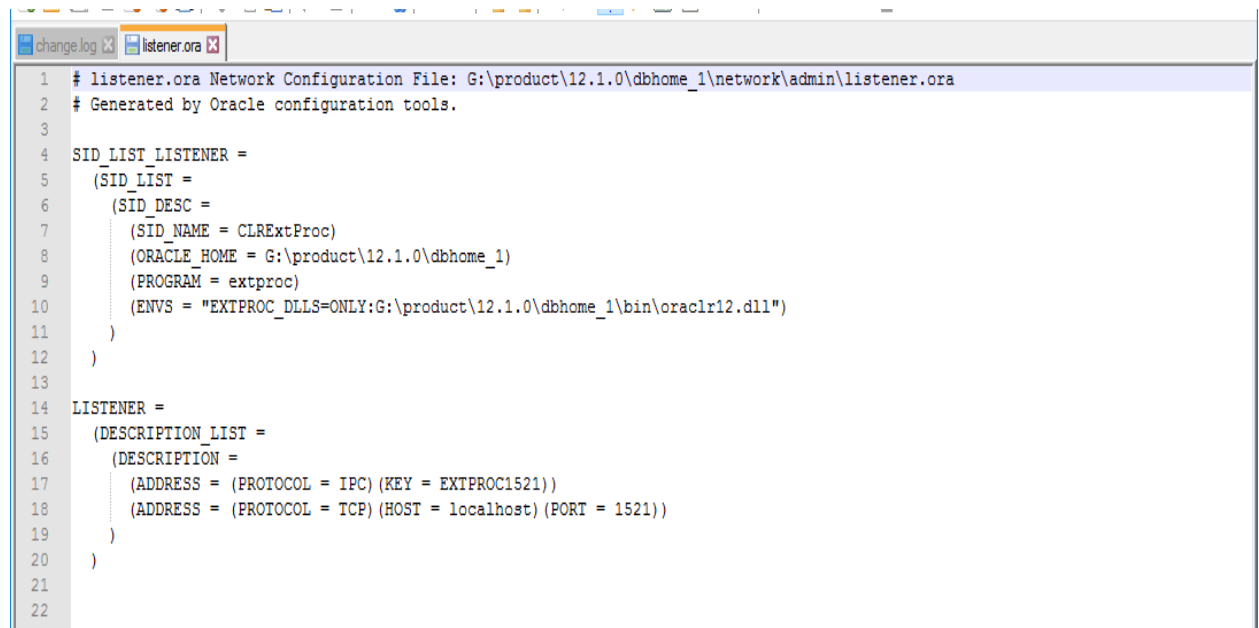# Modul IV

Configuring and Managing the Oracle Network

A. The Net Manager

#### 1. Net Manager Interface

2. Listener.ora Configuration

3. Tnsnames.ora Configuration

```
1  # tnsnames.ora Network Configuration File: G:\product\12.1.0\dbhome_1\network\admin\tnsnames.ora
2  # Generated by Oracle configuration tools.
3
4  LISTENER_ORCL112 =
5    (ADDRESS = (PROTOCOL = TCP)(HOST = localhost)(PORT = 1521))
6
7
8  ORACLR_CONNECTION_DATA =
9    (DESCRIPTION =
10     (ADDRESS_LIST =
11       (ADDRESS = (PROTOCOL = IPC)(KEY = EXTPROC1521))
12     )
13     (CONNECT_DATA =
14       (SID = CLRExtProc)
15       (PRESENTATION = RO)
16     )
17   )
18
19  LISTENER_ORCL =
20    (ADDRESS = (PROTOCOL = TCP)(HOST = localhost)(PORT = 1521))
21
22
23  ORCL =
24    (DESCRIPTION =
25      (ADDRESS = (PROTOCOL = TCP)(HOST = localhost)(PORT = 1521))
26      (CONNECT_DATA =
27        (SERVER = DEDICATED)
28        (SERVICE_NAME = orcl)
29      )
30    )
31
32  ORCL112 =
33    (DESCRIPTION =
34      (ADDRESS = (PROTOCOL = TCP)(HOST = localhost)(PORT = 1521))
35      (CONNECT_DATA =
36        (SERVER = DEDICATED)
37        (SERVICE_NAME = orcl112)
38      )
39    )
40
```
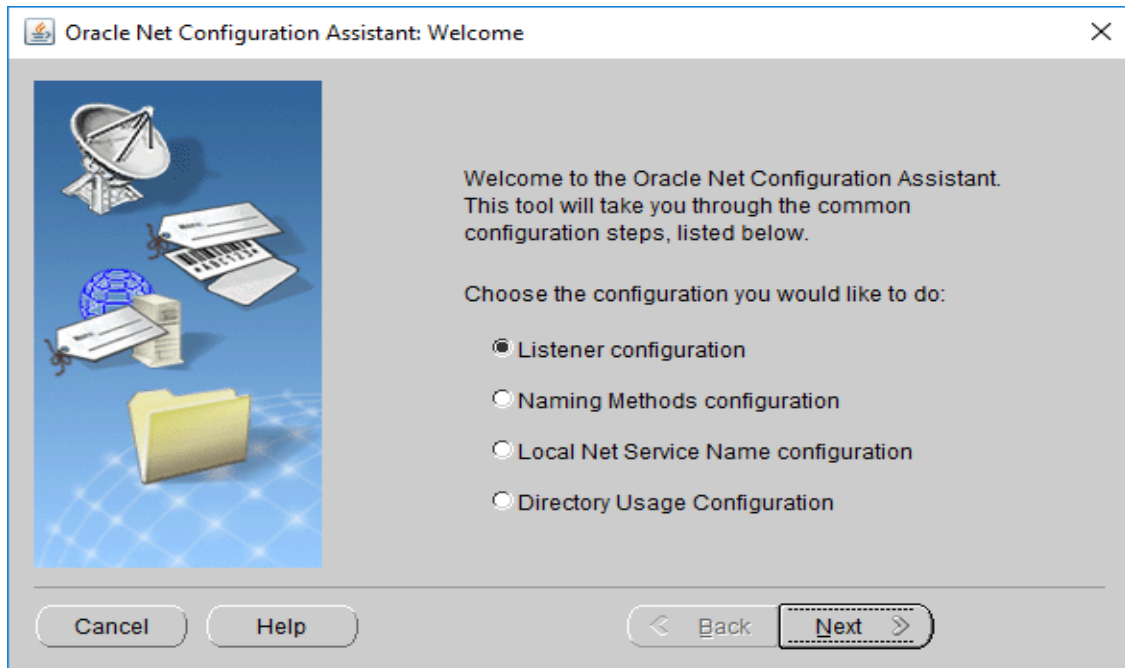
4. Connection Test
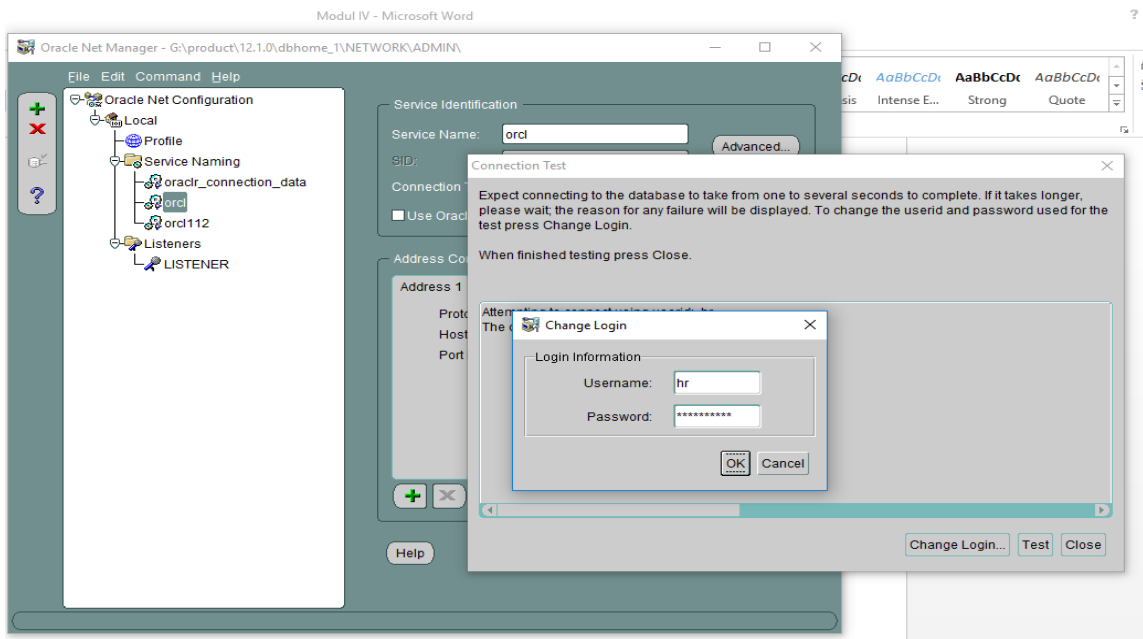

```
SQL> conn hr/amikom2017@localhost:1521/orcl;
Connected.
SQL> show user
USER is "HR"
SQL>
```

B. The Net Configuration Assistant

   1. Net Configuration Assistant Interface

C. The Listener Control Utility

D. Configure Client-Side Network

1. Easy Connect Name Resolution

```
SQL> conn hr/amikom2017@localhost:1521/orcl;
Connected.

SQL> conn system/amikom2017@localhost:1521/orcl112;
Connected.
```

2. Local Naming Name Resolution

```
# tnsnames.ora Network Configuration File:
G:\product\12.1.0\dbhome_1\network\admin\tnsnames.ora
# Generated by Oracle configuration tools.

LISTENER_ORCL112 =
  (ADDRESS = (PROTOCOL = TCP)(HOST = localhost)(PORT = 1521))


ORACLR_CONNECTION_DATA =
  (DESCRIPTION =
    (ADDRESS_LIST =
      (ADDRESS = (PROTOCOL = IPC)(KEY = EXTPROC1521))
    )
    (CONNECT_DATA =
      (SID = CLRExtProc)
      (PRESENTATION = RO)
    )
  )

LISTENER_ORCL =
  (ADDRESS = (PROTOCOL = TCP)(HOST = localhost)(PORT = 1521))


ORCL =
  (DESCRIPTION =
    (ADDRESS = (PROTOCOL = TCP)(HOST = localhost)(PORT = 1521))
    (CONNECT_DATA =
      (SERVER = DEDICATED)
      (SERVICE_NAME = orcl)
    )
  )

ORCL112 =
  (DESCRIPTION =
    (ADDRESS = (PROTOCOL = TCP)(HOST = localhost)(PORT = 1521))
    (CONNECT_DATA =
      (SERVER = DEDICATED)
      (SERVICE_NAME = orcl112)
    )
  )
```

3. Testing Oracle Net Connectivity
   ```
   C:\>tnsping orcl
   ```

   ```
   TNS Ping Utility for 64-bit Windows: Version 12.1.0.1.0 - Production on 09-
   MAR-2017 03:03:45

   Copyright (c) 1997, 2013, Oracle.  All rights reserved.

   Used parameter files:
   G:\product\12.1.0\dbhome_1\network\admin\sqlnet.ora


   Used TNSNAMES adapter to resolve the alias
   Attempting to contact (DESCRIPTION = (ADDRESS = (PROTOCOL = TCP)(HOST =
   localhost)(PORT = 1521)) (CONNECT_DATA = (SERVER = DEDICATED) (SERVICE_NAME
   = orcl)))
   OK (60 msec)
   ```

   ```
   C:\>tnsping orcl112
   ```

   ```
   TNS Ping Utility for 64-bit Windows: Version 12.1.0.1.0 - Production on 09-
   MAR-2017 03:04:19

   Copyright (c) 1997, 2013, Oracle.  All rights reserved.

   Used parameter files:
   G:\product\12.1.0\dbhome_1\network\admin\sqlnet.ora


   Used TNSNAMES adapter to resolve the alias
   Attempting to contact (DESCRIPTION = (ADDRESS = (PROTOCOL = TCP)(HOST =
   localhost)(PORT = 1521)) (CONNECT_DATA = (SERVER = DEDICATED) (SERVICE_NAME
   = orcl112)))
   OK (10 msec)
   ```

4. Configure Communication Between Databases

   ```
   SQL> create database link coba
     2  connect to system identified by amikom using 'orcl';

   Database link created.

   SQL> select * from all_users@coba;
   USERNAME
   --------------------------------------------------------------------------------
      USER_ID CREATED   COM O
   --------- --------- --- -
   SCOTT
          110 20-FEB-17 NO  N

   OE
          109 20-FEB-17 NO  N

   PM
          106 20-FEB-17 NO  N


   USERNAME
   --------------------------------------------------------------------------------
      USER_ID CREATED   COM O
   ```

```
---------- --------- --- -
SH
       105 20-FEB-17 NO  N

IX
       104 20-FEB-17 NO  N

HR
       102 20-FEB-17 NO  N


USERNAME
-------------------------------------------------------------------------------
    USER_ID CREATED   COM O
--------- --------- --- -
BI
       107 20-FEB-17 NO  N

DVF
        99 28-JUN-13 YES Y

APEX_040200
        98 28-JUN-13 YES Y


USERNAME
-------------------------------------------------------------------------------
    USER_ID CREATED   COM O
--------- --------- --- -
APEX_PUBLIC_USER
        95 28-JUN-13 YES Y

FLOWS_FILES
        94 28-JUN-13 YES Y

LBACSYS
        92 28-JUN-13 YES Y


USERNAME
-------------------------------------------------------------------------------
    USER_ID CREATED   COM O
--------- --------- --- -
SPATIAL_CSW_ADMIN_USR
        90 28-JUN-13 YES Y

SPATIAL_WFS_ADMIN_USR
        87 28-JUN-13 YES Y

MDDATA
        85 28-JUN-13 YES Y


USERNAME
-------------------------------------------------------------------------------
    USER_ID CREATED   COM O
--------- --------- --- -
OLAPSYS
        82 28-JUN-13 YES Y

DVSYS
   1279990 28-JUN-13 YES Y

SI_INFORMTN_SCHEMA
        78 28-JUN-13 YES Y


USERNAME
-------------------------------------------------------------------------------
    USER_ID CREATED   COM O
--------- --------- --- -
ORDPLUGINS
        77 28-JUN-13 YES Y

ORDDATA
```

```
        76 28-JUN-13 YES Y

ORDSYS
        75 28-JUN-13 YES Y


USERNAME
--------------------------------------------------------------------------------
    USER_ID CREATED   COM O
---------- --------- --- -
CTXSYS
        73 28-JUN-13 YES Y

OJVMSYS
        69 28-JUN-13 YES Y

WMSYS
        61 28-JUN-13 YES Y


USERNAME
--------------------------------------------------------------------------------
    USER_ID CREATED   COM O
---------- --------- --- -
GSMCATUSER
        60 28-JUN-13 YES Y

MDSYS
        79 28-JUN-13 YES Y

ANONYMOUS
        50 28-JUN-13 YES Y


USERNAME
--------------------------------------------------------------------------------
    USER_ID CREATED   COM O
---------- --------- --- -
XDB
        49 28-JUN-13 YES Y

APPQOSSYS
        48 28-JUN-13 YES Y

DBSNMP
        47 28-JUN-13 YES Y


USERNAME
--------------------------------------------------------------------------------
    USER_ID CREATED   COM O
---------- --------- --- -
ORACLE_OCM
        36 28-JUN-13 YES Y

DIP
        23 28-JUN-13 YES Y

GSMUSER
        22 28-JUN-13 YES Y


USERNAME
--------------------------------------------------------------------------------
    USER_ID CREATED   COM O
---------- --------- --- -
GSMADMIN_INTERNAL
        21 28-JUN-13 YES Y

XS$NULL
2147483638 28-JUN-13 YES Y

OUTLN
        13 28-JUN-13 YES Y
```

```
USERNAME
--------------------------------------------------------------------------------
   USER_ID CREATED   COM O
---------- --------- --- -
SYSKM
2147483619 28-JUN-13 YES Y

SYSDG
2147483618 28-JUN-13 YES Y

SYSBACKUP
2147483617 28-JUN-13 YES Y


USERNAME
--------------------------------------------------------------------------------
   USER_ID CREATED   COM O
---------- --------- --- -
SYSTEM
         8 28-JUN-13 YES Y

AUDSYS
         7 28-JUN-13 YES Y

SYS
         0 28-JUN-13 YES Y


42 rows selected.
```