

12

Oracle Net Services

By: Ahmad Syauqi Ahsan

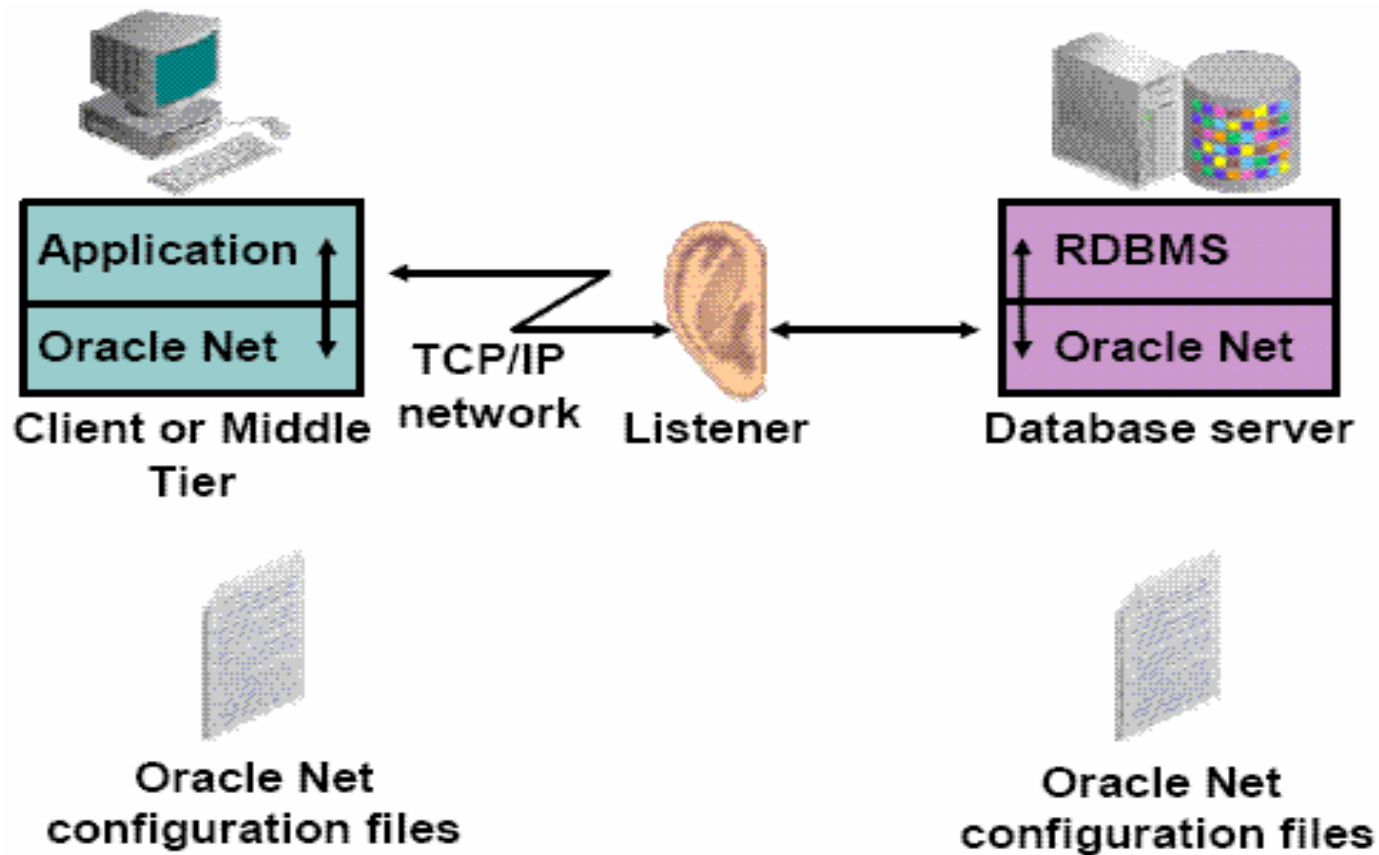
ORACLE®

Tujuan

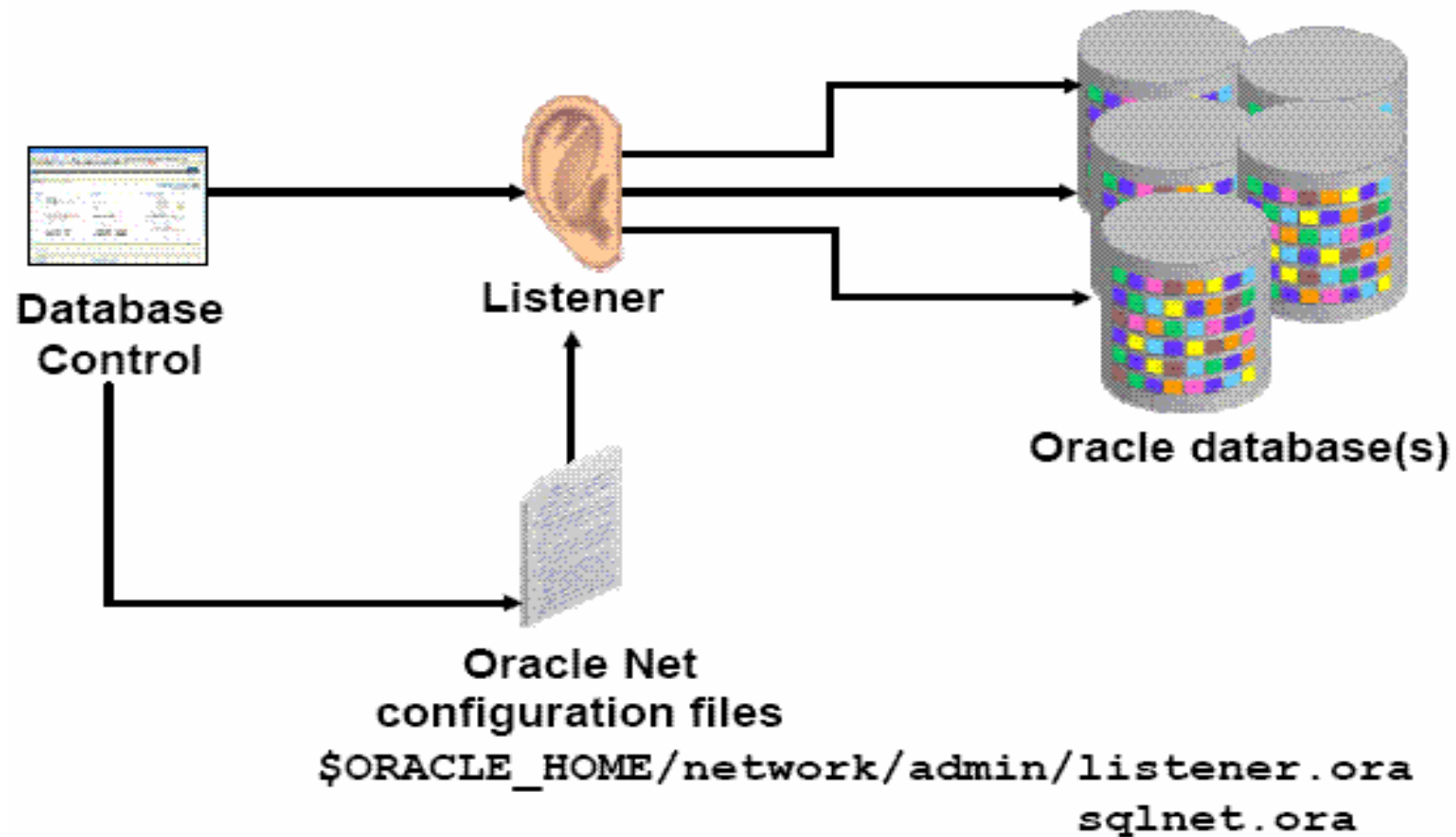
Setelah menyelesaikan bab ini, Anda seharusnya dapat melakukan hal-hal berikut:

- Menggunakan Database Control untuk
 - Membuat *listener* tambahan
 - Membuat alias-alias service Oracle Net
 - Mengkonfigurasi *connect time failover*
 - Mengontrol *listener* Oracle Net
- Menggunakan *Oracle Net Manager* untuk mengkonfigurasi *client* dan koneksi-koneksi *middle-tier*.
- Menggunakan TNSPING untuk menguji koneksitas *Oracle Net*.

Oracle Net Services



Oracle Net Listener




Memonitor Listener

Listener: LISTENER_EDDNR5P1

[Home](#) [Serviced Databases](#)

Page Refreshed Feb 16, 2004 4:57:47 PM

General



Status: Up

Availability (%): **100**
(Last 24 Hours)

Alias: LISTENER

Version: 10.1.0.2.0

Oracle Home: [/u01/app/oracle/product/10.1.0](#)

Net Address: (ADDRESS=(PROTOCOL=TCP)(HOST=EDDNR5P1)(PORT=1521))

LISTENER_ORA Location: [/u01/app/oracle/product/10.1.0/network/admin](#)

Start Time: Feb 16, 2004 1:52:56 PM

Host: [eddnr5p1.us.oracle.com](#)

Edit

Stop

State

TNS Ping (ms) **10**

Established Connections
per minute: **4**

Refused Connections per
minute: **0**

ORACLE

12-5

Membuat Suatu Listener

1. Select Configuration File Location: /u01/app/oracle/product/10.1.0/network/admin

2. Listeners: /u01/app/oracle/product/10.1.0/network/admin

3. Create Listener dialog box

4. Add button

Listeners: /u01/app/oracle/product/10.1.0/network/admin

Select	Name	Protocol Details	Status	Enterprise Manager Target
	LISTENER	Protocol: IPC Key: EXTPROC Protocol: TCP/IP Host: c640.lowenthal.com Port: 1521	Started	LISTENER_c640.lowenthal.com

Create Listener

General Authentication Log Tracing Static Database Registration Other Services

Listener Name: BACKUP

Addresses

If address is changed, listener will be stopped before applying changes.

Add

Alamat-Alamat Listening

Add Address

Cancel OK

6 Protocol TCP/IP 5

Port 5561

7

Host <hostname or IP address of server>

The host name or IP address of the computer.

8

Listeners: /u01/app/oracle/product/10.1.0/network/admin

Create

Edit Delete Actions Start/Stop

Select	Name	Protocol Details	Status	Enterprise Manager Target
<input type="radio"/>	LISTENER	Protocol: IPC Key: EXTPROC	Started	LISTENER_c640_lowenthal.com
		Protocol: TCP/IP Host: c640.lowenthal.com Port: 1521		
<input checked="" type="radio"/>	BACKUP	Protocol: TCP/IP Host: c640.lowenthal.com Port: 5561	Stopped	Not a target

9

Edit Listener: BACKUP

Cancel

OK

General Authentication

Logging & Tracing

Static Database Registration

Other Services

Logging

☒ Logging Disabled

☐ Logging Enabled

* Log File: /u01/app/oracle/product/10.1.0/network/log/BACKUP.log

Tracing

☒ Tracing Disabled

☐ Tracing Enabled

Select a trace level.

☒ User

Basic information useful for identifying user-induced error conditions

☐ Administrator

Detailed information useful for identifying installation-specific problems

☐ Support

Trace information useful for Oracle Support Services

* Trace File: /u01/app/oracle/product/10.1.0/network/trace/BACKUP.trc

Edit Listener: BACKUP

Cancel OK

General Authentication Logging & Tracing **Static Database Registration** Other Services

Configure the static registration of databases for the listener. Database information for Oracle8i or later releases is dynamically registered with the listener during instance startup. Therefore, static registration is not required for these releases, unless you require remote database startup from other than Oracle Enterprise Manager. Click Help for more details.

Add

Select	Service Name	Oracle Home Directory	Oracle System Identifier (SID)
	(No items found)		

Add Database Service

Cancel OK

* Service Name

* Oracle Home Directory

* Oracle System Identifier (SID)

Edit Confirmation: BACKUP

If the listener is not stopped and restarted, the changes will not take effect. Choose whether or not you want the listener to be restarted.

☒ Restart

☐ Don't Restart

Utility Listener Control

Oracle Net Listeners juga dapat dikontrol menggunakan utility command-line lsnrctl.

```
#lsnrctl
LSNRCTL for Linux: Version 10.1.0.1.0 on 05-NOV-2003 13:27:51
Copyright (c) 1991, 2003, Oracle. All rights reserved.
Welcome to LSNRCTL, type "help" for information.
LSNRCTL> help
The following operations are available
An asterisk (*) denotes a modifier or extended command:

start          stop          status
services       version        reload
save_config    trace          spawn
change_password quit          exit
set*           show*
```

Sintak Utility Kontrol Listener

Perintah-perintah dari utility listener control bisa dikeluarkan dari command-line atau dari prompt LSNRCTL.

- Sintak command-line UNIX atau Linux :

```
# lsnrctl <command name>  
# lsnrctl start  
# lsnrctl status
```

- Sintak prompt :

```
LSNRCTL> <command name>  
LSNRCTL> start  
LSNRCTL> status
```

Memonitor dengan Kontrol Listener

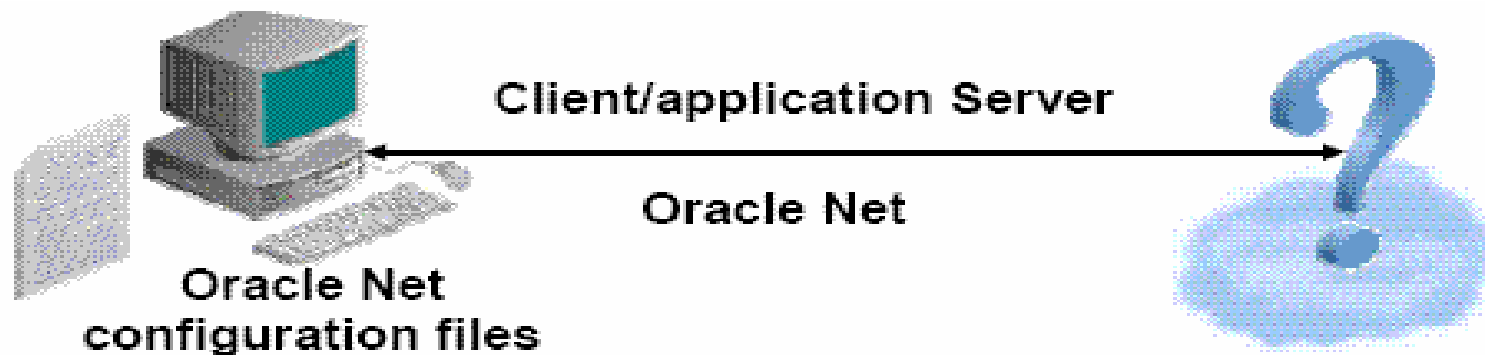
Listener control menyediakan dua pilihan pemantauan, services dan status.

```
LSNRCTL> SERVICES
Connecting to
 (DESCRIPTION=(ADDRESS=(PROTOCOL=IPC) (KEY=EXTPROC)))
Services Summary...
Service "dba10g" has 1 instance(s).
   Instance "dba10g", status READY, has 1 handler(s) for
this service...
   Handler(s):
     "DEDICATED" established:12 refused:0 state:ready
...
The command completed successfully
```

Koneksi-Koneksi Oracle Net

Untuk membuat suatu koneksi client atau middle-tier, Oracle Net membutuhkan client untuk mengetahui :

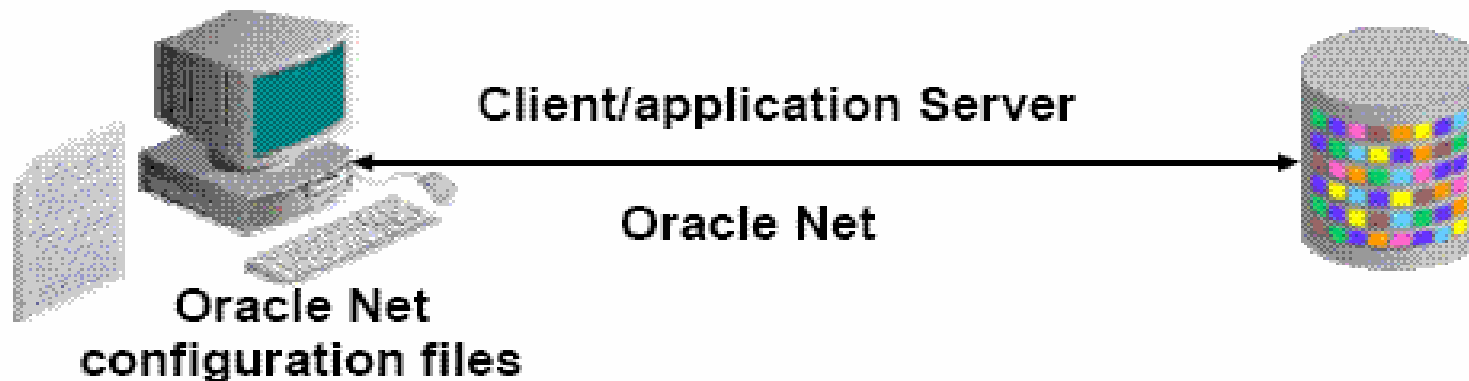
- Host dimana listener berjalan
- Port listener pemonitor
- Protocol listener yang digunakan
- Nama dari service yang ditangani listener



Names Resolution

Oracle Net mendukung beberapa metode dari informasi pemecahan koneksi :

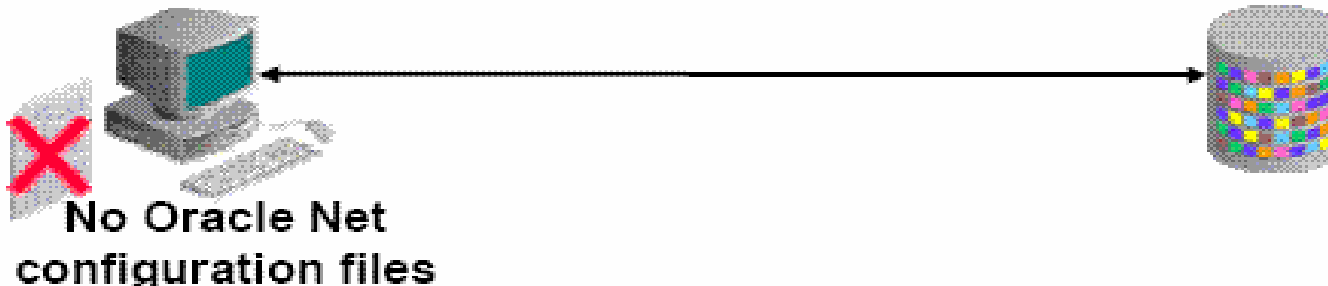
- Easy Connect
- Local naming
- Directory naming
- External naming



Easy Connect

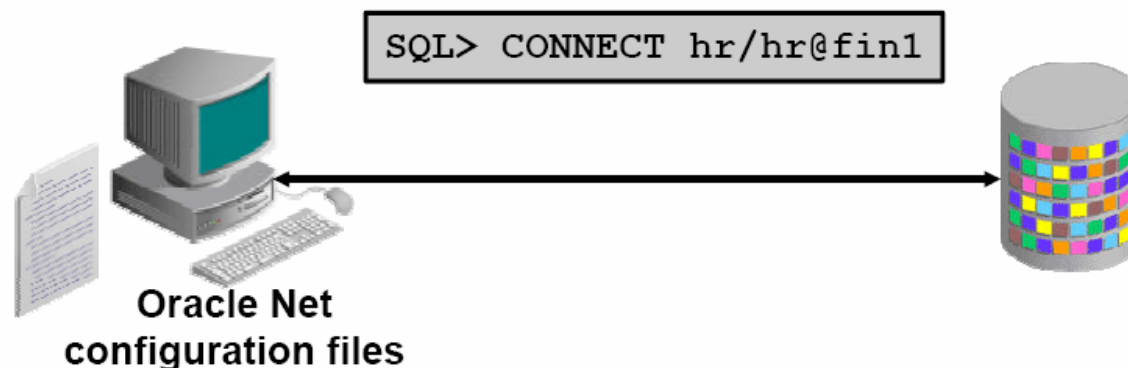
- Secara default dijalankan (enabled)
- Tidak meminta konfigurasi client-side
- Hanya mendukung protocol TCP/IP (tanpa SSL)
- Tidak mendukung untuk *advanced connection option* seperti:
 - Connect-time failover
 - Source routing
 - Load balancing

```
SQL> CONNECT hr/hr@db.us.oracle.com:1521/dba10g
```



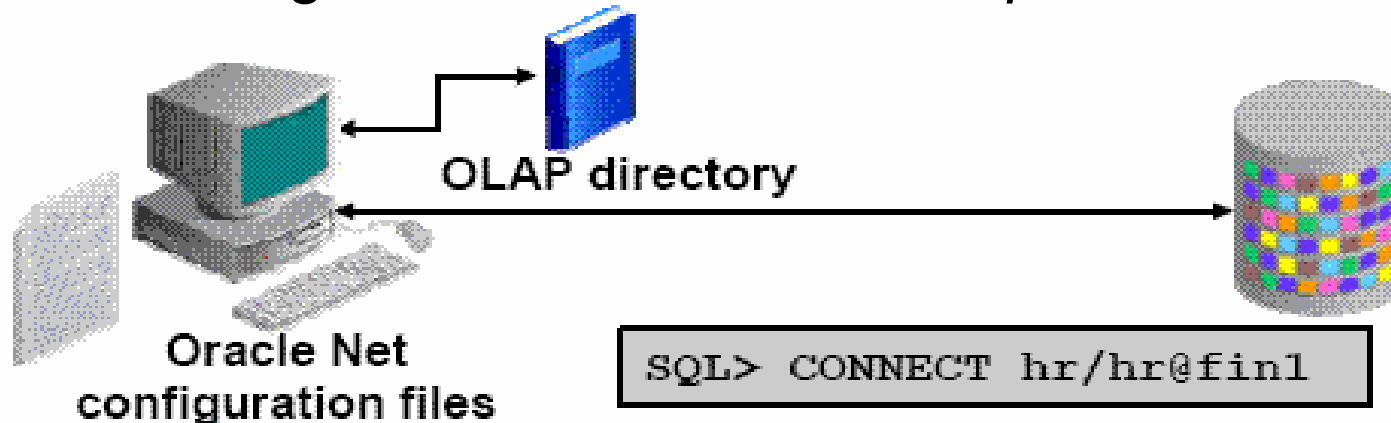
Local Naming

- Membutuhkan suatu file *names resolution client-side*
- Mendukung semua protocol-protocol Oracle Net
- Mendukung *advanced connection options* seperti :
 - Connect-time failover
 - Source routing
 - Load balancing

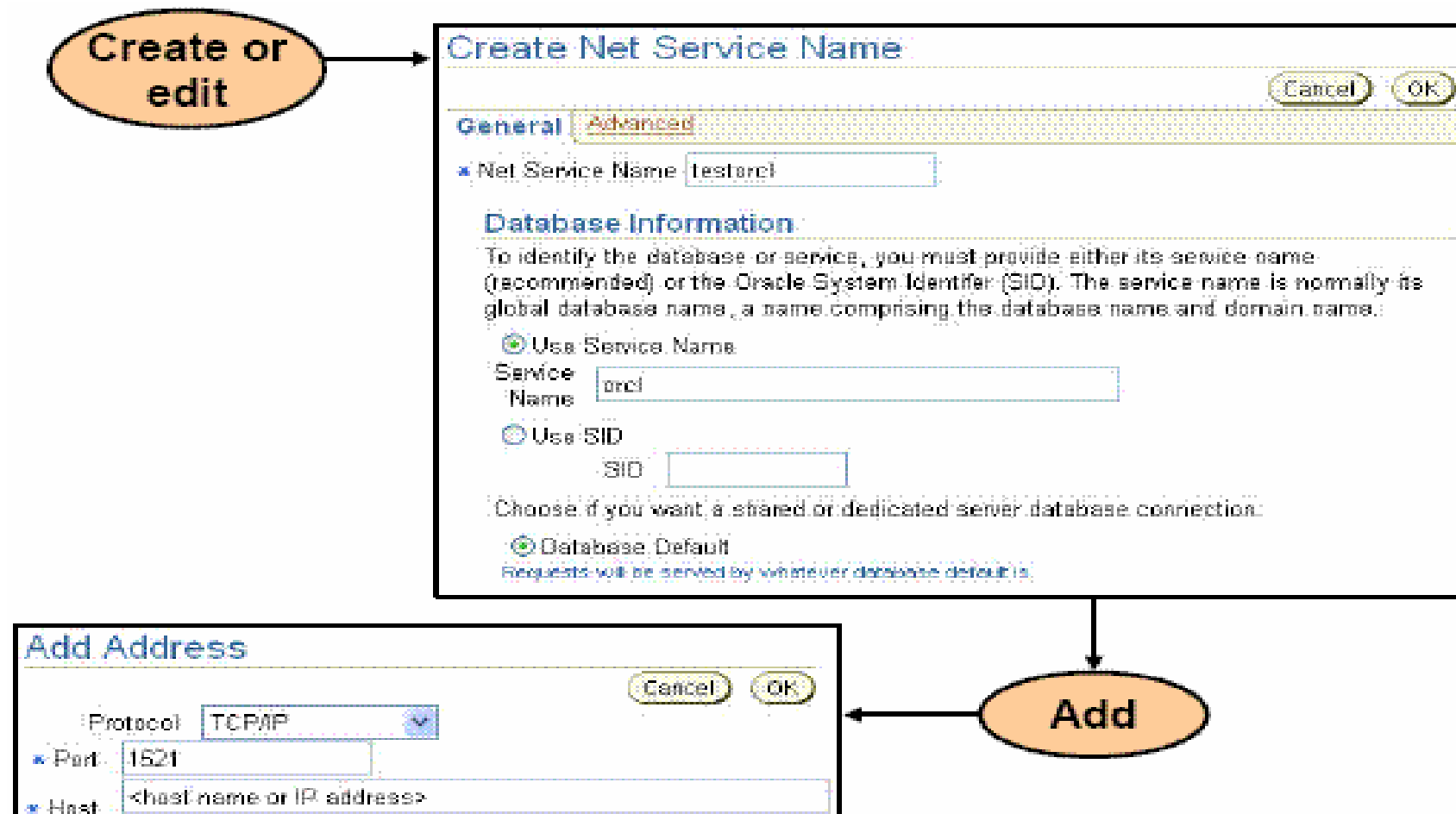


Directory Naming

- Meminta suatu *Lightweight Directory Access Protocol* (LDAP) pada informasi names resolution Oracle Net yang dijalankan
 - Oracle Internet Directory
 - Microsoft Active Directory Services
- Mendukung semua protocol-protocol Oracle Net
- Mendukung *advanced connection options*



Mengkonfigurasi Alias-Alias Service



Advanced Connection Options

Oracle Net mendukung *advanced connection options* pada *local* dan *directory naming*

- Connect-time failover
- Load balancing
- Source routing

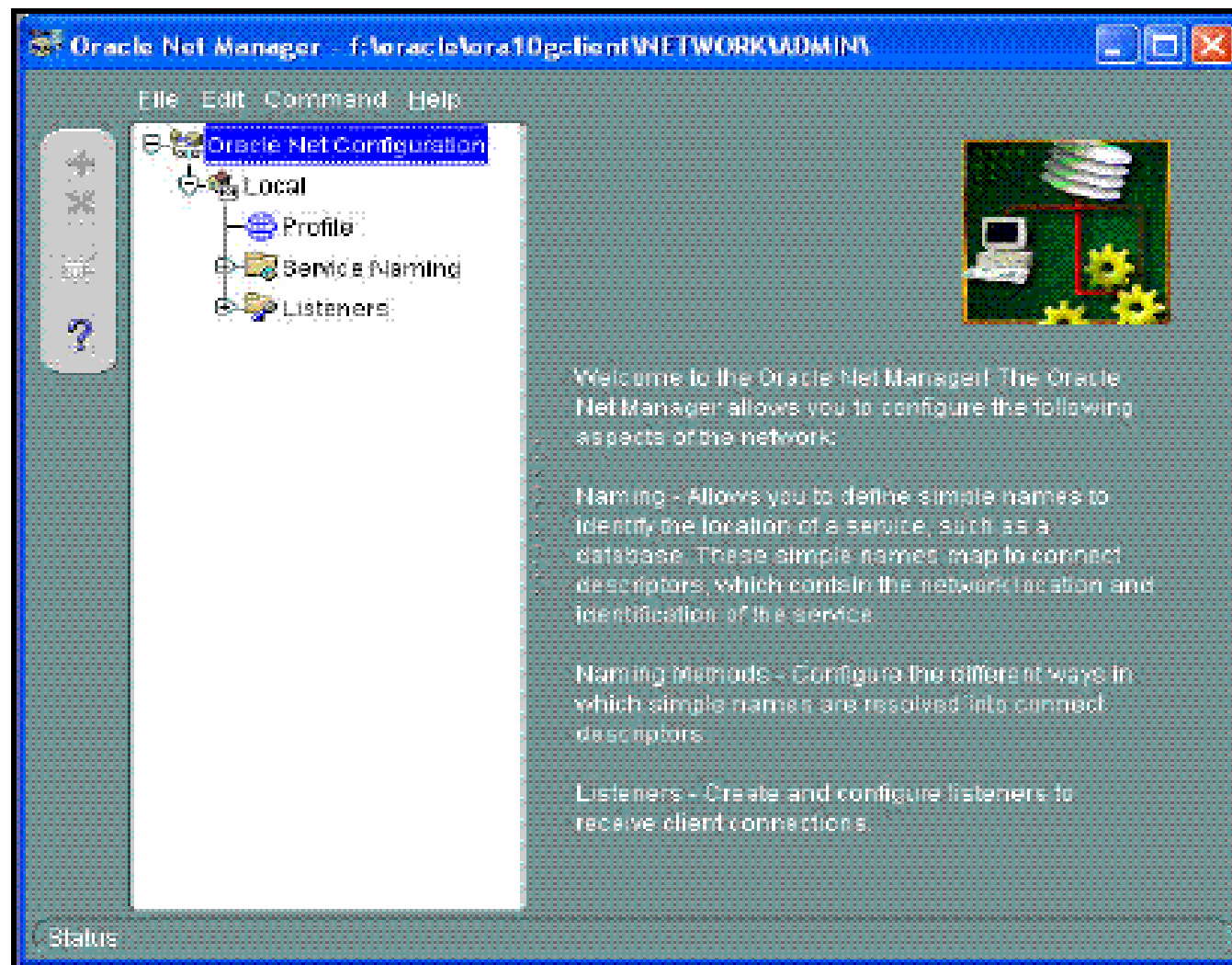
The screenshot shows a configuration window with a table of protocols and a section for connect-time failover and client load balancing.

Select	Protocol	Protocol Details
<input checked="" type="radio"/>	TCP/IP	Host: 192.168.2.62 Port: 1521
<input type="radio"/>	TCP/IP	Host: 192.168.2.62 Port: 5561

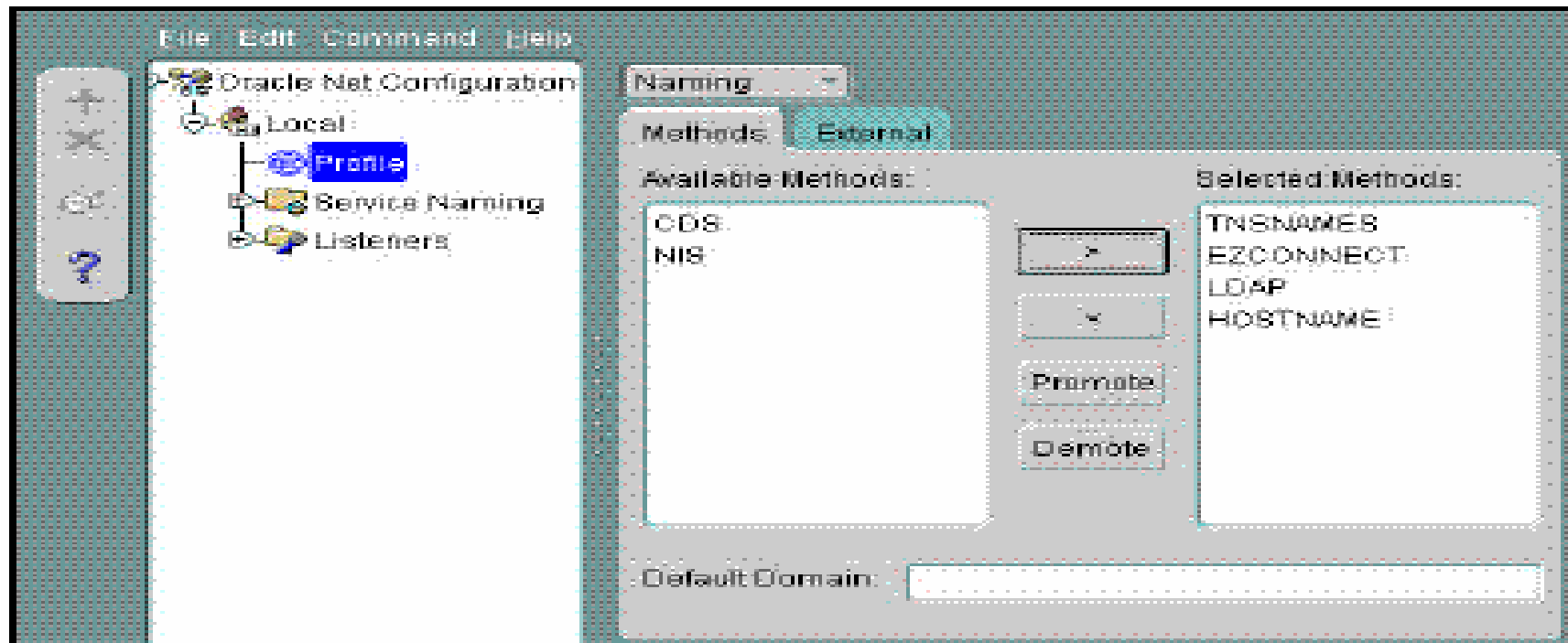
Connect-time Failover and Client Load Balancing
Configure whether addresses are tried randomly or sequentially during connections to the service. This setting is applicable only if there are more than one addresses configured.

- ☒ Try each address, in order, until one succeeds
- ☐ Try each address randomly, until one succeeds
- ☐ Try one address, selected at random
- ☐ Use each address in order until destination is reached
- ☐ Use only the first address

Oracle Net Manager



Memilih Penamaan *Methods*



Oracle Net Manager mengkonfigurasi method-method names resolution suatu client atau middle-tier yang akan digunakan dan urutan dimana method-method ditandai.

Mengkonfigurasi Alias-Alias Service pada Net Manager

To access an Oracle database, or other service, across the network you use a net service name. This wizard will help you create a net service name.

Enter the name you want to use to access the database or service. It can be any name you choose.

Net Service Name:

To communicate with the database across a network, a network protocol is used. Select the protocol used for the database you want to access.

☒ TCP/IP (Internet Protocol)
☐ TCP/IP with SSL (Secure Internet Protocol)
☐ Named Pipes (Microsoft Networking)
☐ IPC (Local Database)

Gunakan Oracle Net Manager untuk mengkonfigurasi alias-alias local dan directory naming.

To communicate with the database using the TCP/IP protocol, the database computer's host name is required. Enter the TCP/IP host name for the computer where the database is located.

Host Name:

A TCP/IP port number is also required. The port number for Oracle databases is usually 1521. You should not normally need to specify a different port number.

Port Number:

To identify the database or service you must provide either its service name, for Oracle 9i 9.1 or later, or system identifier (SID), for Oracle 8i 8.0 database versions. The service name for an Oracle 8i or later database is normally its global database name.

☒ (Oracle 8i or later) Service Name:
☐ (Oracle 8 or Previous) SID:

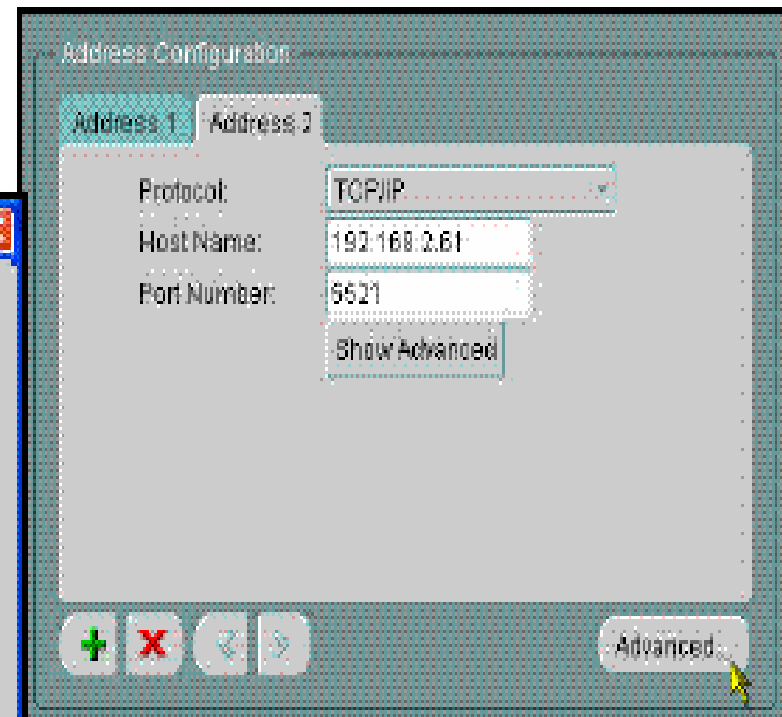
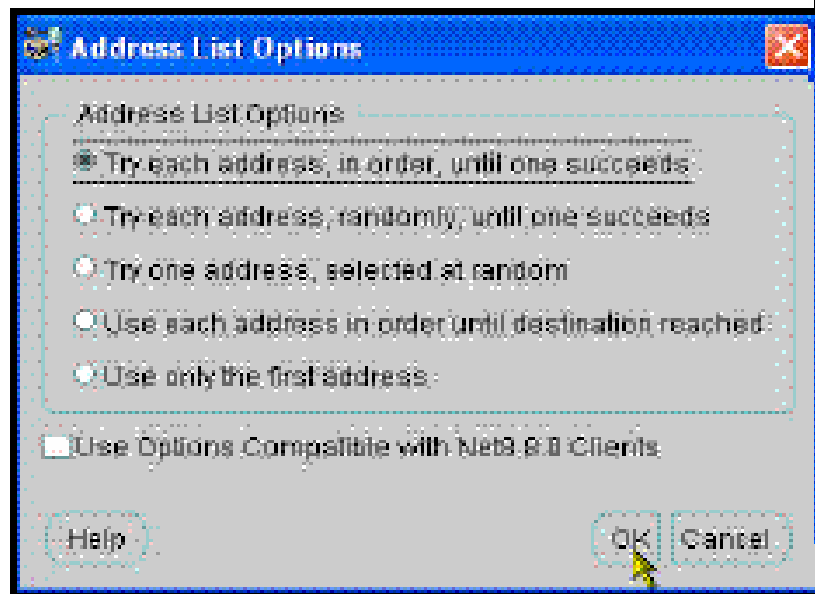
Optionally, you can choose if you want a shared or dedicated server database connection. The default is to let the database decide.

Connection Type:

Advanced Connection Options Menggunakan Oracle Net Manager

Oracle Net mendukung *advanced connection options* pada *local* dan *directory naming*

- *Connect-time failover*
- *Load balancing*



Menguji Koneksitas Oracle Net

Utility tnspring menguji alias-alias service Oracle Net.

- Memastikan koneksi antara client dan listener Oracle Net
- Tidak memeriksa bahwa service yang diminta tersedia
- Mendukung nama-nama pemecahan Easy Connect

```
# tnspring db.us.oracle.com:1521/dba10g
```

- Mendukung penamaan local dan directory

```
# tnspring foo
```


Ringkasan

Pada bab ini, Anda seharusnya telah mempelajari bagaimana cara untuk:

- Menggunakan Database Control untuk:
 - Membuat listener-listener tambahan
 - Password-protect listener
 - Membuat alias-alias service Oracle Net
- Mengontrol listener Oracle Net
- Menggunakan Oracle Net Manager untuk mengkonfigurasi koneksi-koneksi client atau middle-tier
- Menggunakan TNSPING untuk menguji koneksitas Oracle Net