1A. How to create a listener on 1521?

Assumption is you want to create a llistener called LISTENER on port 1521.

If you database server is on *NIX?

- Start X-Window program like xming, exceed, winaxe, cygwin.
- Start putty with x-11 enabled with localhost:0.0
- login as oracle and execute …
  - netca
  - create a listener with the following attitributes
  - "LISTENER" on 1521 port with most of the default settings.

1B. How to create a listener called LSNR1695 on Port 1695

Assumption is you want to create a non-default listener called LSNR1695 on port 1695.

If you database server is on *NIX?

- Start X-Window program like xming, exceed, winaxe, cygwin.
- Start putty with x-11 enabled with localhost:0.0
- login as oracle and execute …
  - netca
  - create a listener "LSNR1695" on 1695 port.

If your database server is on Windows:

- Start command prompt as “as administrator” and execute ...
  - netca
  - create a listener "LSNR1695" on 1695 port.

2. How to verify how many databases are up?

ps -ef |grep pmon

3) How to verify how many databases are configured in a server (up or down)?

cat /etc/oratab
or

cd $ORACLE_HOME/dbs
ls -ltr init*
ls -ltr spfile*

4) How to verify how many listeners are up?

ps -ef |grep lsnr
or
ps -ef|grep tnslsnr|awk '{ print $9; }'

For Example:

```
Linux-223:(PrimeDG)$ ps -ef |grep lsnr
```

```
oracle   3726     1  0 Jan09 ?       00:00:00 /u01/app/oracle/product/10.2.0/db_1/bin/tnslsnr SHABANA1693 -inherit
oracle   4617     1  0 Jan02 ?       00:00:00 /u01/app/oracle/product/10.2.0/db_1/bin/tnslsnr LSNR1599 -inherit
oracle   5555     1  0 Jan02 ?       00:00:00 /u01/app/oracle/product/10.2.0/db_1/bin/tnslsnr LSNR1597 -inherit
oracle   6976     1  0 Jan01 ?       00:00:00 /u01/app/oracle/product/10.2.0/db_1/bin/tnslsnr LSNR1695 -inherit
oracle   7612     1  0 Jan01 ?       00:00:00 /u01/app/oracle/product/10.2.0/db_1/bin/tnslsnr LSNR6223 -inherit
oracle  11833     1  0 Jan09 ?       00:00:00 /u01/app/oracle/product/10.2.0/db_1/bin/tnslsnr LISTENER -inherit
oracle  18777     1  0 Jan10 ?       00:00:00 /u01/app/oracle/product/10.2.0/db_1/bin/tnslsnr TARZAN1695 -inherit
```

or

```
Linux-223:(PrimeDG)$  ps -ef|grep tnslsnr|awk '{ print $9; }'
SHABANA1693
LSNR1599
LSNR1597
LSNR1695
LSNR6223
LISTENER
tnslsnr
TARZAN1695
```

5. What is the location of Oracle Network Administration files?

$ORACLE_HOME/network/admin

6) Where is tnsnames.ora file?

$ORACLE_HOME/network/admin

cat $TNS_ADMIN/tnsnames.ora | more

7) What is tnsnames.ora file?

It is like an address book where it holds the properties of a database network connection.

Typical TNS Entry looks like the following:

```
MARSDB =
  (DESCRIPTION =
    (ADDRESS_LIST =
      (ADDRESS = (PROTOCOL = TCP)(HOST = 192.168.0.223)(PORT = 1693))
    )
    (CONNECT_DATA =
      (SERVICE_NAME = MarsDB)
    )
  )
```

Where:

MarsDB is called the “Connect Identifier” and can be named anything. Typically, we keep this as same name as the database name to avoid the confusion. Another name for connection identifier is “Net Service Name”. Do not confuse “Net Service Name” with “Service Name”. They both are different.

Net Service Name = User’s personal choice name configured on Client side.

Service Name = Database Name or DBA assigned service name on the Server side.

To check the service names configured on the database, login to the database as sys and issue the following:

SQL> show parameter service.

8 How to create a TNS Entry (Database Address / Connect Identifier) on the Oracle Client Machine using netca?
Click here for the document.

9) Where is the listener.ora file?

_____$ORACLE_HOME/network/admin
cat $TNS_ADMIN/listener.ora | more

10) How to work in a specific database?

- export ORACLE_SID=<Database Name>
  ex: export ORACLE_SID=MoidDB

11) How to start a database as a Database Administrator (sys user)?

Complete #1 and issue the following:
$ cat /etc/hosts
$ sqlplus / as sysdba
startup

12) Listener Management Commands:

lsnrctl <enter>

set current_listener <your listener name>

The following commands are used to manage the listener:

start	– Starts the listener with the name specified, otherwise LISTENER will be used. For Windows systems, the listener can also be started from the Control Panel.
stop	--Stops the listener. For Windows systems, the listener can also be stopped from the Control Panel.
Status	– Provides status information about the listener. (including start date, uptime, and trace level)
services	– Displays each service available, along with the connection history.
version	– Displays the version information of the listener.
reload	– Forces a read of the configuration file in order for new settings to take effect without stopping and starting the listener.
save_config	– Creates a backup of the existing listener.ora file and saves changes to the current version.
trace	– Sets the trace level to one of the following – OFF, USER, ADMIN, or SUPPORT.
change_password	– Sets a new password for the listener.
quit and exit	– Exits the utility.
set	– Changes the value of any parameter. Everything that can be shown can be set.
show	– Displays current parameter settings.
reload	-- to stop and start
services	--To check how many services are configured in your listener?

13) Listener Help commnds

LSNRCTL> help
LSNRCTL> show help
LSNRCTL> set help

```
LSNRCTL> help
```

The following lsnrctl operations are available

An asterisk (*) denotes a modifier or extended command:

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

14) To find out the location of Trace Directory and Trace File Name:

LSNRCTL> show trc_directory
Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=Linux-223)(PORT=1521)))
listener parameter "trc_directory" set to /u01/app/oracle/product/10.2.0/db_1/network/trace/
The command completed successfully

LSNRCTL> show trc_file
Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=Linux-223)(PORT=1521)))
listener parameter "trc_file" set to listener.trc
The command completed successfully

15) How to set the Trace Level:

set trc_level <value>

Values can be any of the following:

```
0 - 1           off
2 - 3           err
4 - 5           user
6 - 14          admin  --> DBAs mostly use this trace level.
15              dev
16 - 99         support
```

Example:
LSNRCTL> set current_listener listener
LSNRCTL> set trc_level 0

LSNRCTL> show trc_level
Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=Linux-223)(PORT=1521)))
listener parameter "trc_level" set to off
The command completed successfully

LSNRCTL> set trc_level on
TNS-01107: A valid trace level was not specified

LSNRCTL> set trc_level 8
Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=Linux-223)(PORT=1521)))
listener parameter "trc_level" set to admin
The command completed successfully

16) How to check how many services are configured in your listener?

lsnrctl
LSNRCTL> set current_listener listener
LSNRCTL > services

17) How to check the status of the listener?

ps -ef |grep pmon

18) How to password protect the listener?

LSNRCTL> change_password
Old password:
New password:
Reenter new password:
LSNRCTL> save_config

19) How to force database to register the services in the listener?

Login to database as sys

export ORACLE_SID=<YourDatabaseName>
sqlplus / as sysdba
alter system register;
exit
lsnrctl status <YourListenerName>

20) Where can I read more about the Oracle networking?

10g R2 http://download.oracle.com/docs/cd/B19306_01/network.102/b14212/toc.htm
11g R2 http://download.oracle.com/docs/cd/E11882_01/network.112/e10836/toc.htm

21. How to create Listener called LISTENER on DB Server (UNIX Server)?

- start exceed
- start putty with x-11 enable.
- Login as oracle
- Test x-forwarding is on by calling x-clock utility.
- netca &

Select	→	Listener Configuration	→ Next
Select	→	Add	→ Next
Listener Name	→	LISTENER	→ Next
With Default values	→	Next	
With Default Values	→	Next	
With Default Values	→	Next	
With Default Values	→	Next	
With Default Values	→	Finish	

22. Where to download Oracle Client?

http://www.mydbanotes.com/2011/07/download-oracle-11g-r2-client-from-here.html

23. How to install Oracle Client on your local machine?
http://www.mydbanotes.com/2011/07/how-to-install-oracle-11g-r2-client-on.html

24. What is service registration?

A feature by which the PMON process automatically registers information with a listener. Because this information is registered with the listener, the listener.ora file does not need to be configured with this static information.

Service registration provides the listener with information about:

- Service names for each running instance of the database
- Instance names of the database
- Service handlers (dispatcher or dedicated server) available for each instance. These Service handlers enable the listener to direct a client request appropriately.
- Dispatcher, instance, and node load information

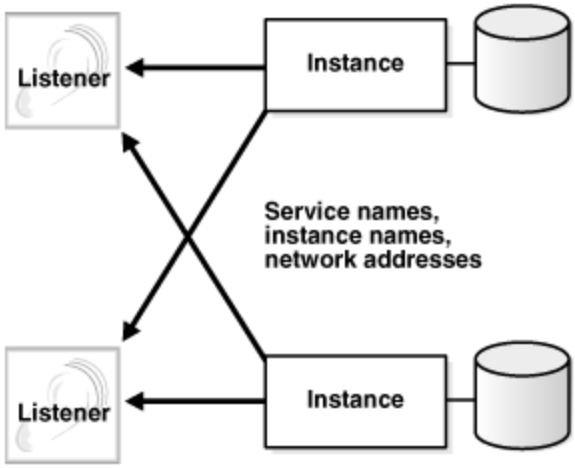
This load information enables the listener to determine which dispatcher can best handle a client connection request. If all dispatchers are blocked, then the listener can spawn a dedicated server for the connection.

The listener determines whether a database service and its service handlers are available through service registration. During registration, the PMON process provides the listener with information about the following:

- Names of the database services provided by the database
- Name of the database instance associated with the services and its current and maximum load
- Service handlers (dispatchers and dedicated servers) available for the instance, including their type, protocol addresses, and current and maximum load

The preceding information enables the listener to direct a client request appropriately.

The following figure shows two database instances registering information with two listeners. The figure does not represent all the information that can be registered. For example, listening endpoints, such as the port numbers, can be dynamically registered with the listener.



If the listener is not running when an instance starts, then the process monitor (PMON) cannot register the service information. PMON attempts to connect to the listener periodically, but it may take up to 60 seconds before PMON registers with the listener after it has been started. To initiate service registration immediately after the listener is started, use the following:

ALTER SYSTEM REGISTER;

Reference: http://docs.oracle.com/cd/E11882_01/network.112/e10836/net_arch.htm#CACCABGA

25. Where are the listener's logfiles?

lsnrctl
set current_listener LISTENER
show log_file

```
Server-220:(none)$ ps -ef |grep lsnr
oracle   29867     1  0 12:42 ?        00:00:00 /u01/app/oracle/product/11.2.0/db_1/bin/tnslsnr LISTENER -inherit
oracle   29897 29469  0 12:44 pts/0    00:00:00 grep --color=auto lsnr
Server-220:(none)$ lsnrctl

LSNRCTL for Linux: Version 11.2.0.2.0 - Production on 13-JUN-2016 12:44:15

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Welcome to LSNRCTL, type "help" for information.

LSNRCTL> set current_listener LISTENER
Current Listener is LISTENER
LSNRCTL> show log_file
Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=IPC)(KEY=EXTPROC1521)))
LISTENER parameter "log_file" set to /u01/app/oracle/diag/tnslsnr/Server-220/listener/alert/log.xml
The command completed successfully
LSNRCTL>
LSNRCTL>
```

--Moid Muhammad