
Local Connections Works, Connecting Via Network To The Database Fails With ORA-01034 ORA-27101 (Doc ID 375688.1)

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APPLIES TO:

Oracle Net Services - Version 10.2.0.1 to 11.2.0.3 [Release 10.2 to 11.2]

Information in this document applies to any platform.

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SYMPTOMS

On a system with multiple IP addresses, when we connect with **sqlplus** locally on the server (i.e. "sqlplus user/password") everything is OK, but connecting through a TNS alias, either from the network or locally on the server, we get the the following errors:

```
sqlplus user/password@db_alias

ERROR:
ORA-01034: ORACLE not available
ORA-27101: shared memory realm does not exist
SVR4 Error: 2: No such file or directory
```

CHANGES

May be triggered by:

- `SID_LIST_<listener>` changes in LISTENER.ORA
- Listener port/host reconfiguration
- Using `(IP=FIRST)` in LISTENER.ORA
- Database startup scripts changes
- Oracle user environment changes

CAUSE

Database is not dynamically registering with the listener and most likely the static setup in LISTENER.ORA is wrong in respect of `ORACLE_HOME` value for the desired database instance (`SID_NAME`).

OR

The `SID_NAME` specified in the listener.ora file or the `SID` value in the tnsnames.ora file are not set to the correct case. The `SID_NAME` and `SID` are case sensitive.

OR

The Listener has been configured with a hostname or address which points to an IP different than the one to which the system hostname points; because of this the listener will bind only to that particular IP (see [Note 421305.1](#)). However, the database instance will attempt, by default, to register with the listener on the system hostname — but the listener cannot catch these connections in the above setup.

SOLUTION

1. Fix the static database entries in LISTENER.ORA

Check that the `SID_DESC` statements in `SID_LIST_<listener>` in LISTENER.ORA contain correct values for the `ORACLE_HOME`, `SID_NAME` and `GLOBAL_DBNAME` entries. This also includes the correct case (UPPER or lower) for the `SID_NAME` value in the `listener.ora` or the `SID` value in the `tnsnames.ora` files.

Alternatively you may remove the `SID_DESC` entries for the databases in order to force the listener to use only dynamic instance registrations.

2. Activate dynamic database instance registration

Please verify the following:

1. Check that the listener is configured to bind on the system hostname (e.g. change the `HOST` statement in LISTENER.ORA). Database(s) will be able to dynamically register with the listener;
2. Make sure that the boot scripts will start the listener **before** the database startup.

If you want to leave the listener binding only to certain address(es)/port(s), then you may force the database to register with the listener on that particular address. In this case you will have to modify the "**local_listener**" database parameter to contain either a service name pointing to the listener, or an in-place complete address. The "**local_listener**" database parameter will let PMON know exactly on what IP address / port is the listener accepting connections.

To modify the **local_listener** parameter, either use the **dbca** utility or the Enterprise Manager interface. Otherwise execute the following SQL statement as SYSDBA:

```
ALTER SYSTEM SET local_listener='service_name_towards_listener' SCOPE=BOTH;
```

Replace the "*service_name_towards_listene*" value with an entry from TNSNAMES.ORA pointing to your listener host/port combination.

REFERENCES

[NOTE:300729.1](#) - What is IP=FIRST in the LISTENER.ORA file ?

[NOTE:365314.1](#) - Database Will Not Register With Listener configured on IP instead of Hostname ORA-12514

[NOTE:421305.1](#) - How The Listener Binds On TCP Protocol Addresses