

Installer Prerequisite Document
Oracle FLEXCUBE Universal Banking
Release 14.7.1.0.0
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1. Installer Prerequisite Setup

The Overview of this document is to share you the knowledge on how Installer is designed.

Note: Install 12C Client, Maintain JAVA Latest Version.

TNS_ADMIN Configuration:

If the target database is Autonomous Database, TNS_ADMIN must be configured. Refer to the section 'Steps to configure TNS_ADMIN' for detailed steps to configure TNS_ADMIN.

Two installer modes has to be used during setup of environment:

1. GUI Installer –

Located under \INSTALLER\SOFT\GUI

GUI Installer will be required for below activities:

- Property File Creation
- Basic Setup
- Environment Property file configuration

2. Silent Installer –

Located under \INSTALLER\SOFT

Silent Installer will be required for below activities:

- Database Setup
- EAR Build

Source Structure:

The Installation can be done in different ways and Source Structure should be maintained as below:

1. ROFC without OBCL:

The ROFC_OSDC.zip can be used without any modifications.

2. ROFC with OBCL:

The OBCL folder from OBCL_OSDC.zip should be copied parallel to INFRA folder of ROFC_OSDC.zip.

In addition, copy the following class folders from \INFRA of OBCL OSDC.zip file to ROFC_OSDC extracted sources \INFRA folder

In addition, copy the following class folders from \ADAPTERS\FCEXTERNAL of OBCL OSDC.zip file to ROFC_OSDC extracted sources \ADAPTERS\FCEXTERNAL folder

- PIApps
- PICOMMON

- PIDto
- PIEJB
- PIEntities
- PIKernel
- PIKernelDao
- PIUtility
- COCommon
- CODto
- COEJB
- COEntities
- COKernel
- COKernelDao
- COUtility

3. ROFC with ELCM:

ELCM and POJO folders from ELCM_OSDC.zip should be copied parallel to INFRA folder of ROFC_OSDC.zip

In addition, copy the following class folders from \INFRA of ELCM OSDC.zip file to ROFC_OSDC extracted sources \INFRA folder

- ELCMCommon
- ELCMDto
- ELCMEJB
- ELCMEntities
- ELCMGateway
- ELCMKernel
- ELCMKernelJpa
- ELCMUtility
- ELCMWeb

4. ROFC without ELCM:

The ROFC_OSDC.zip can be used without any modifications.

5. OBCL without ELCM:

The OBCL_OSDC.zip can be used without any modifications.

6. OBCL with ELCM:

ELCM and POJO folders from ELCM_OSDC.zip should be copied parallel to INFRA folder of OBCL_OSDC.zip

In addition, copy the following class folders from \INFRA of ELCM OSDC.zip file to ROFC_OSDC extracted sources \INFRA folder

- ELCMCommon
- ELCMDto
- ELCMEJB
- ELCMEntities
- ELCMGateway
- ELCMKernel
- ELCMKernelJpa
- ELCMUtility
- ELCMWeb

5. ELCM: The ELCM_OSDC.zip can be used without any modifications.

6. PM: The PM_OSDC.zip can be used without any modifications.

7. CO-DEPLOY: The OBCL folder from OBCL_OSDC.zip and PM folder from PM_OSDC.zip should be copied parallel to INFRA folder of ROFC_OSDC.zip

Environment Setup Steps:

Below are the sequence of steps to be followed during Environment Setup:

1. Property File Creation: (Refer: FCUBS_Property_File_Creation.docx)

Two property files will get generated

- "fcubs.properties" required for application (EAR).
- "env.properties" common property required for environment setup.

2. Populating environment property file: (Refer next section)

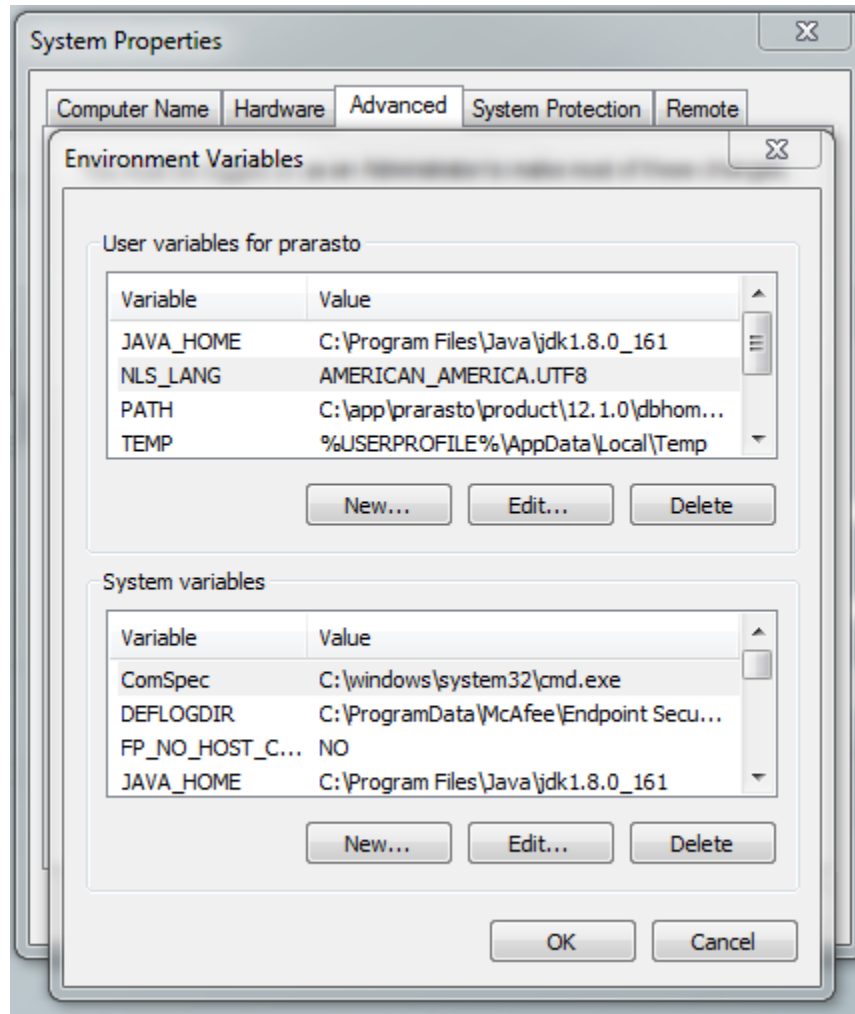
Database properties are to be populated from the "env.properties" generated during property file creation. Rest of the properties are to be manually updated.

3. NLS LANG settings:

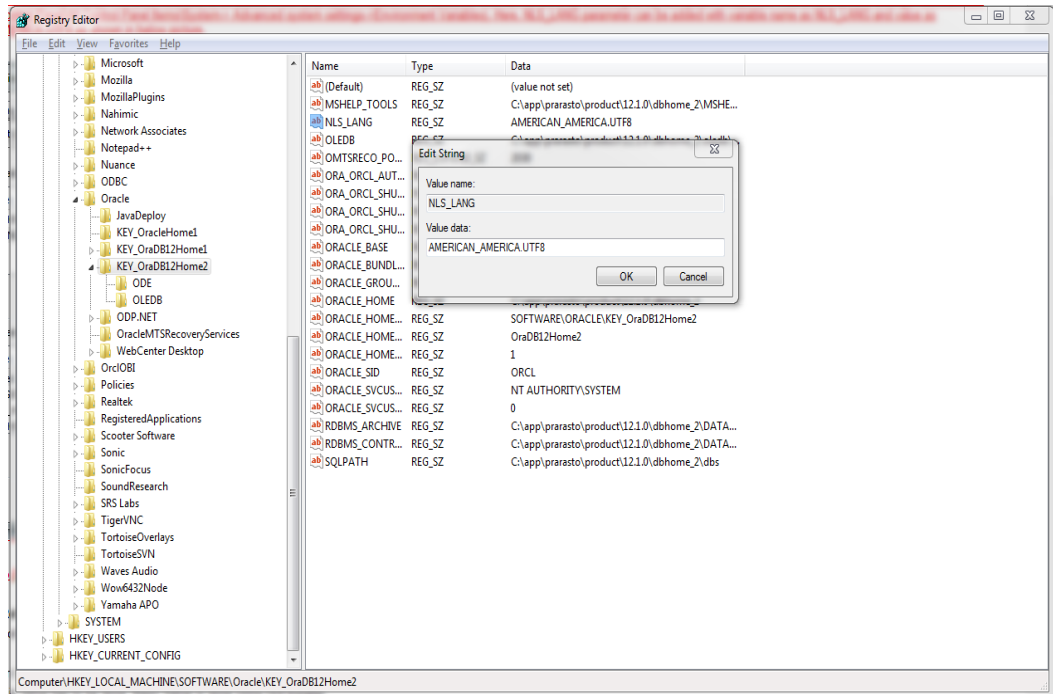
Before moving to DB setup, NLS_LANG parameter has to be added in the local system environment variables.

For Windows:

This can be done by browsing to My Computer->Properties->Advanced system settings->Environment Variables(or, Control Panel\All Control Panel Items\System->Advanced system settings->Environment Variables). Here, NLS_LANG parameter can be added with variable name as NLS_LANG and value as AMERICAN_AMERICA.UTF8 as shown in below picture.



After this, go to Run(shortcut:Windows+R), enter regedit, and click OK. It will open Registry Editor. Here, under Oracle DB KEY, NLS_LANG parameter can be added with variable name as NLS_LANG and value as AMERICAN_AMERICA.UTF8 as shown in below picture.



After this, please do a System Restart(Shutdown->Restart) so as to reflect the changes.

For Linux:

This can be done by opening a command bash shell and by setting environment variables in the command prompt,

```
export NLS_LANG= AMERICAN_AMERICA.UTF8
```

Running the above command in the installer location will set the environment variable in linux shell/terminal.

4. Database Setup: (Refer: FCUBS_DB_Setup.docx)

Database setup involves DDL Load, Object Compilation and Static Data Compilation.

5. Basic Setup: (Refer: FCUBS_DB_Setup.docx)

Post INC Load, basic setup has to be done. Basic Setup is done using GUI Installer.

6. Application EAR build: (Refer: FCUBS_EAR_Building)

FCUBS Application and Gateway EAR build can be done using the silent installer

Environment Property file configuration:

```
#Mon May 07 14:01:30 IST 2018
GW_PROPERTIES_PATH=D:/14.1/INSTALLER/Console_EXEC_24apr/Console_EXEC/INSTALLER/SOFT/
HOST_SMS=2/8gbcFjgT1KiiSYgRiG9anIzl3s66mDaAL9CF3Rt8I=
SYMMETRIC_KEY=oraclefinancialsolutions
ENTITY_ID2=ENTITY_ID2
ENTITY_ID1=ENTITY_ID1
PORT_SMS=1521
RECENT_BROWSE_LOCATION=C:/Users/piyushsh/Desktop/multi/fcubs.properties
CONTEXT_NAME=FCJNeoWeb
PASSWORD_SMS=AkAj+fQIxVwKdpHUeRMVcQ==
SOURCE_PATH=D:/14.1/INSTALLER/Console_EXEC_24apr/Console_EXEC
SCHEMA_NAME_ENTITY_ID2=VIZoPhrT9eG7FbuqqN/EYQ==
SCHEMA_NAME_ENTITY_ID1=Gz2Vvivp7T4XbStsj1DKww==
EXTERNAL_PROPERTY_PATH_REQUIRED=N
WEBLOGIC_HOME=C:/Oracle/Middleware/Oracle_Home/wlserver
SCHEMA_NAME_SMS=AkAj+fQIxVwKdpHUeRMVcQ==
PASSWORD_ENTITY_ID2=VIZoPhrT9eG7FbuqqN/EYQ==
COMPILE_IN_ALL_ENTITIES=Y
PASSWORD_ENTITY_ID1=Gz2Vvivp7T4XbStsj1DKww==
APPLICATION_TYPE=FCUBS
EXTERNAL_PROPERTY_PATH=
DECENTRALIZED=N
EAR_NAME=FCUBSMULT
EXTERNAL_JSUIXML_PATH=
EAR_DESTINATION_PATH=D:/14.1/INSTALLER/multi
ENTITY_NOS=2
DECENTRALIZED_FCUBS_PROPERTIES_PATH=
CONNECTING_STRING_ENTITY_ID2=FC141INSTESTPDB
CONNECTING_STRING_ENTITY_ID1=FC141INSTESTPDB
HOST_ENTITY_ID2=2/8gbcFjgT1KiiSYgRiG9anIzl3s66mDaAL9CF3Rt8I=
SERVICE_NAME_ENTITY_ID2=YtfaW53ngv1Tcgyh3fgZPA==
HOST_ENTITY_ID1=2/8gbcFjgT1KiiSYgRiG9anIzl3s66mDaAL9CF3Rt8I=
ConfigPath=D:/14.1/INSTALLER/Console_EXEC_24apr/Console_EXEC/INSTALLER/SOFT/config/A
SERVICE_NAME_ENTITY_ID1=YtfaW53ngv1Tcgyh3fgZPA==
PATCHSET_INSTALLATION=N
FCUBS_PROPERTIES_PATH=D:/14.1/INSTALLER/multi/fcubs.properties
ORACLE_HOME=C:/app/client/piyushsh/product/12.2.0/client_1
APPSERVER_HOME=C:/Oracle/Middleware/Oracle_Home/wlserver
CONNECTING_STRING_SMS=FC141INSTESTPDB
JAVA_HOME=C:/Program Files/Java/jdk1.8.0_151
PORT_ENTITY_ID2=1521
PORT_ENTITY_ID1=1521
SERVICE_NAME_SMS=YtfaW53ngv1Tcgyh3fgZPA==
EXTERNAL_JSUIXML_REQUIRED=N
```

NOTE: A single property file will be used for both DB Compilation and EAR build. Hence all the properties will be located in a single property file. Some properties may not be applicable during the certain setup and those should not be modified (should be left with default values).

Config Path

Absolute path to the folder containing the config files are to be provided. This is located under \INSTALLER\SOFT\config\Application

Java Home

Provide Home folder path of JDK1.8.

Oracle Home

Provide home folder path of Oracle Client or Database

Varedited

This property should not be changed. This is an internal property required by installer to identify if any changes are required in env.properties

Source and Destination Path

Specify the destination directory. Here destination path should be same as the source file path

FCUBS_PROPERTIES_PATH

Path where the fcubs property file is located .

GW_PROPERTIES_PATH

Provide the Gateways Properties Path.

APPLICATION_TYPE

Application Type is maintained as per the Application Name selected in the GUI Installer.

EXTERNAL PROPERTY PATH

If this is selected during installation, the corresponding path will be displayed here and the value of the parameter EXTERNAL PROPERTY FILE REQUIRED will be 'Y'.

EXTERNAL JSUIXML PATH

If this is selected during installation, the corresponding path will be displayed here and the value of the parameter EXTERNAL JSUIXML REQUIRED will be 'Y'.

EAR_NAME

Specify a name for the Application to be created.

EAR DESTINATION PATH

This is the local path where the built EAR will be saved. This gets updated automatically as per the path provided during the installation process.

CONTEXT_NAME

Specify a name for the Application Context

FCHome

Provide the FCHome Path. This will be the source path for DB setup/EAR build.

USER_NAME

Give the Schema Name

PASSWORD

Here Password should be encrypted. As Schema details provided by the GUI Installer, the env.properties file generates with the encrypted password.

Schema

Give the Instance Name.

NOTE: Path is maintained with '\\' as it is maintained only for WINDOWS. '\' slash will consider as an escape character so '\\\' slash is given in windows.

On launch of GUI Installer for creating the property file, the env properties file gets generated which is present in **\\INSTALLER\\SOFT\\GUI\\logs** path will be copied to **\\INSTALLER\\SOFT\\logs** path. This method is followed for EAR creation and Back-end build as it is done by the Silent Installer.

If OBCL needs to install as Co-deployed along with ROFC then OBCL folder from OBCL OSDC zip should be placed parallel to ROFC folder in the ROFC OSDC zip.

If ELCM needs to install as Co-deployed along with ROFC then ELCM folder from ELCM OSDC zip should be placed parallel to ROFC folder in the ROFC OSDC zip. INFRA inside ELCM should be moved and merged with CORE INFRA.

If PAYMENTS needs to install as Co-deployed along with ROFC then PAYMENTS folder from PAYMENTS OSDC zip should be placed parallel to ROFC folder in the ROFC OSDC zip.

INFRA inside PAYMENTS should be moved and merged with CORE INFRA.

2. Steps to Configure TNS_ADMIN

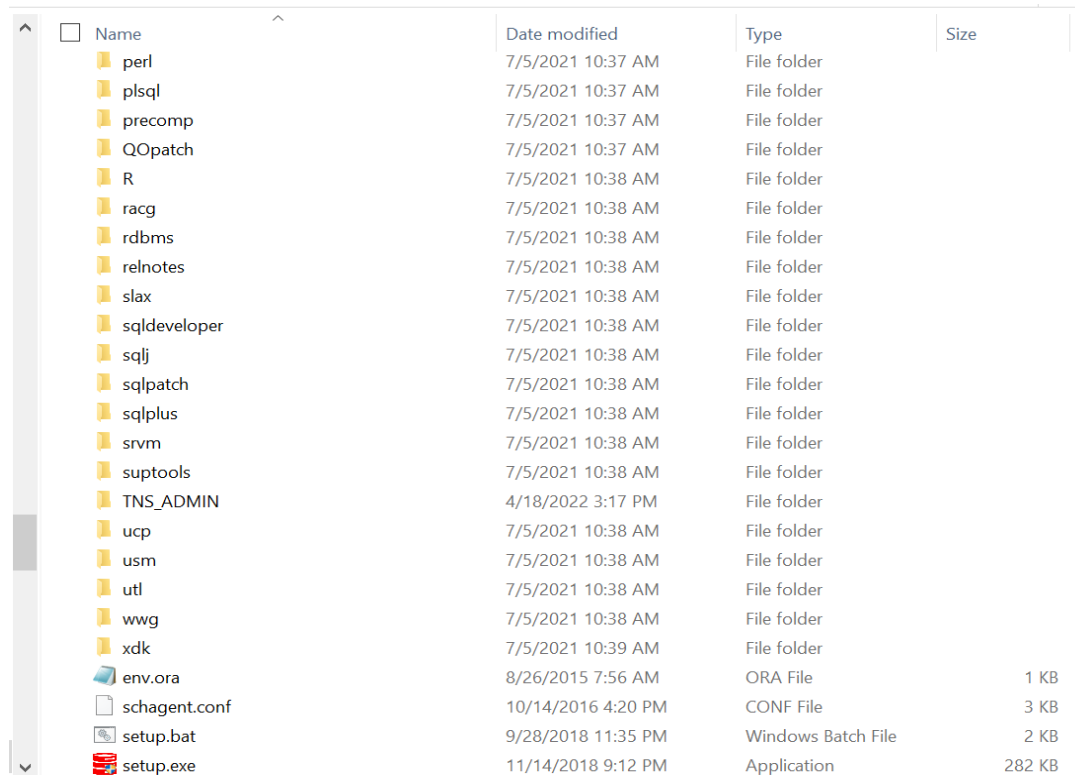
Entry Criteria / Pre-Requisite:

- Oracle Database/Instant Client has to be install and present in the Windows or Linux Machine where this setup is being done.
- Autonomous Database Wallet provided by the Database Administrator

2.1 Configuring TNS ADMIN in Windows Machine

1. Create a new folder called TNS_ADMIN in Oracle Database/Instant Client Home path.

For example, Oracle Home path: C:/Software/Installation/WINDOWS.X64_193000_db_home



| Name | Date modified | Type | Size |
|------------------|--------------------|--------------------|--------|
| perl | 7/5/2021 10:37 AM | File folder | |
| plsql | 7/5/2021 10:37 AM | File folder | |
| precomp | 7/5/2021 10:37 AM | File folder | |
| QOPatch | 7/5/2021 10:37 AM | File folder | |
| R | 7/5/2021 10:38 AM | File folder | |
| racg | 7/5/2021 10:38 AM | File folder | |
| rdbms | 7/5/2021 10:38 AM | File folder | |
| relnotes | 7/5/2021 10:38 AM | File folder | |
| slax | 7/5/2021 10:38 AM | File folder | |
| sqldeveloper | 7/5/2021 10:38 AM | File folder | |
| sqlj | 7/5/2021 10:38 AM | File folder | |
| sqlpatch | 7/5/2021 10:38 AM | File folder | |
| sqlplus | 7/5/2021 10:38 AM | File folder | |
| svrm | 7/5/2021 10:38 AM | File folder | |
| suptools | 7/5/2021 10:38 AM | File folder | |
| TNS_ADMIN | 4/18/2022 3:17 PM | File folder | |
| ucp | 7/5/2021 10:38 AM | File folder | |
| usm | 7/5/2021 10:38 AM | File folder | |
| util | 7/5/2021 10:38 AM | File folder | |
| wwg | 7/5/2021 10:38 AM | File folder | |
| xdk | 7/5/2021 10:39 AM | File folder | |
| env.ora | 8/26/2015 7:56 AM | ORA File | 1 KB |
| schagent.conf | 10/14/2016 4:20 PM | CONF File | 3 KB |
| setup.bat | 9/28/2018 11:35 PM | Windows Batch File | 2 KB |
| setup.exe | 11/14/2018 9:12 PM | Application | 282 KB |

2. Extract the Autonomous Database wallet inside the TNS_ADMIN folder.

| Name | Date modified | Type | Size |
|------------------|---------------------|--------------------------|------|
| cwallet.sso | 2/15/2022 10:17 AM | SSO File | 7 KB |
| ewallet.p12 | 2/15/2022 10:17 AM | Personal Information ... | 7 KB |
| keystore.jks | 2/15/2022 10:17 AM | JKS File | 4 KB |
| ojdbc.properties | 4/4/2022 12:14 PM | PROPERTIES File | 1 KB |
| README | 2/15/2022 10:17 AM | File | 4 KB |
| sqlnet.ora | 3/22/2022 1:11 PM | ORA File | 1 KB |
| tnsnames.ora | 10/18/2022 10:01 AM | ORA File | 9 KB |
| truststore.jks | 2/15/2022 10:17 AM | JKS File | 4 KB |

3. Edit the **sqlnet.ora** file and update the DIRECTORY path in the **sqlnet.ora** with the TNS_ADMIN folder path. Make sure to use \\ as the folder/directory separator in the path value.

For Example: C:\\Software\\Installation\\WINDOWS.X64_193000_db_home\\TNS_ADMIN

```

1 WALLET_LOCATION = (SOURCE = (METHOD = file) (METHOD_DATA = (DIRECTORY="C:\\Software\\Installation\\WINDOWS.X64_193000_db_home\\TNS_ADMIN")))
2 SSL_SERVER_DN_MATCH=yes

```

4. Go to the **Edit the System Environment Variable** option in a machine and press **New** in the System Variables.
5. Enter the value for the Variable name as **TNS_ADMIN** and Variable value as TNS_ADMIN path and press **OK**.

Edit System Variable ✕
 Variable name:
 Variable value:
 Browse Directory... Browse File... OK Cancel

2.2 Configuring TNS ADMIN in Linux Machine

1. Create a new folder called TNS_ADMIN in Oracle Database/Instant Client Home path.

| Name | Size | Changed |
|--------------|------|-------------------|
| oui | | 6/30/2022 1:01:17 |
| owm | | 6/30/2022 1:00:26 |
| perl | | 6/30/2022 1:00:26 |
| plsql | | 6/30/2022 1:00:28 |
| precomp | | 6/30/2022 1:00:26 |
| QOpatch | | 6/30/2022 1:00:32 |
| racg | | 6/30/2022 1:00:26 |
| rdbms | | 6/30/2022 1:00:26 |
| relnotes | | 6/30/2022 1:00:26 |
| sdk | | 6/30/2022 1:00:49 |
| slax | | 6/30/2022 1:00:26 |
| sqldeveloper | | 6/30/2022 1:00:26 |
| sqlj | | 6/30/2022 1:00:26 |
| sqlplus | | 6/30/2022 1:01:08 |
| svrm | | 6/30/2022 1:00:26 |
| suptools | | 6/30/2022 1:00:26 |
| TNS_ADMIN | | 6/30/2022 1:58:01 |
| ucp | | 6/30/2022 1:00:39 |
| usm | | 6/30/2022 1:00:26 |
| utl | | 6/30/2022 1:00:28 |
| wwg | | 6/30/2022 1:00:26 |
| wallet | | 6/30/2022 1:00:26 |

2. Extract the Autonomous Database wallet inside the TNS_ADMIN folder.

| Name | Size | Changed |
|---------------------|-------|----------------------|
| ... | | 6/30/2022 1:58:01 PM |
| cwallet.sso | 7 KB | 6/30/2022 1:58:01 PM |
| ewallet.p12 | 7 KB | 6/30/2022 1:58:01 PM |
| keystore.jks | 4 KB | 6/30/2022 1:58:01 PM |
| ojdbc.properties | 1 KB | 6/30/2022 1:58:01 PM |
| README | 4 KB | 6/30/2022 1:58:01 PM |
| sqlnet.ora | 1 KB | 6/30/2022 1:58:01 PM |
| tnsnames.ora | 3 KB | 6/30/2022 1:58:01 PM |
| truststore.jks | 4 KB | 6/30/2022 1:58:01 PM |
| Wallet_ATPPDB01.zip | 22 KB | 6/30/2022 1:58:01 PM |

3. Export the TNS_ADMIN path to the Linux machine.

export TNS_ADMIN=<Application Server TNS ADMIN path>

```
bash-4.2$ export TNS_ADMIN=/scratch/work_area/DEV/instantclient_19_14/network/admin
bash-4.2$ █
```



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