http://www.br8dba.com/tag/to-view-an-oracle-wallet/

[Store DB credentials in Oracle Wallet](http://www.br8dba.com/store-db-credentials-in-oracle-wallet/)

[12C](http://www.br8dba.com/category/12c/), [19C](http://www.br8dba.com/category/19c/), [Database 12c](http://www.br8dba.com/category/database-12c/), [DB Generic](http://www.br8dba.com/category/db-generic/)[Add database login credentials to the wallet using mkstore](http://www.br8dba.com/tag/add-database-login-credentials-to-the-wallet-using-mkstore/), [Add TNS Entry (For OS user oracle)](http://www.br8dba.com/tag/add-tns-entry-for-os-user-oracle/), [Create Oracle Wallet Directory](http://www.br8dba.com/tag/create-oracle-wallet-directory/), [Create password protected Oracle Wallet in secured location using orapki](http://www.br8dba.com/tag/create-password-protected-oracle-wallet-in-secured-location-using-orapki/), [Create TNS ADMIN Directory (For OS user raj)](http://www.br8dba.com/tag/create-tns-admin-directory-for-os-user-raj/), [Delete Credential stored in wallet](http://www.br8dba.com/tag/delete-credential-stored-in-wallet/), [Delete Oracle Wallet](http://www.br8dba.com/tag/delete-oracle-wallet/), [Export Oracle Variables](http://www.br8dba.com/tag/export-oracle-variables/), [How to store database credentials in Oracle Wallet](http://www.br8dba.com/tag/how-to-store-database-credentials-in-oracle-wallet/), [List Credential stored in a wallet](http://www.br8dba.com/tag/list-credential-stored-in-a-wallet/), [Modify credential stored in wallet](http://www.br8dba.com/tag/modify-credential-stored-in-wallet/), [Oracle Wallet Password Store](http://www.br8dba.com/tag/oracle-wallet-password-store/), [Oracle Wallet Secure external password file](http://www.br8dba.com/tag/oracle-wallet-secure-external-password-file/), [Secure External Password Store](http://www.br8dba.com/tag/secure-external-password-store/), [To change an Oracle wallet password](http://www.br8dba.com/tag/to-change-an-oracle-wallet-password/), [To view an Oracle wallet](http://www.br8dba.com/tag/to-view-an-oracle-wallet/), [Using the Oracle Wallet to store database credentials](http://www.br8dba.com/tag/using-the-oracle-wallet-to-store-database-credentials/), [Verify DB connection](http://www.br8dba.com/tag/verify-db-connection/)

**Using the Oracle Wallet to store database credentials**

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**Step 0: Overview**

The Oracle Wallet can be used to store the user's credentials, so instead of exposing passwords in clear text format in a shell script. Multiple credentials for multiple database can be stored in a single wallet file.

This procedure stores a database user's credentials inside the Wallet. This features uses the auto login feature, so it is not required to provide the Wallet password to access to the user's credentials, the OS file permissions regulate access to the Wallet.

In this demo i have created wallet on same database server, but used different os user "raj" which is NOT oracle binary owner.

I have created two separate directories for wallet creation which is owned by os user "raj"  
1. Oracle Wallet Directory  
2. Oracle TNS ADMIN directory for OS user "raj"

The status of the auto-login wallet is shows as OPEN\_NO\_MASTER\_KEY in V$ENCRYPTION\_WALLET even after the database is restarted.

**--Datapump using wallet**

nohup expdp /@BSA1EP directory=DUMP\_DIR dumpfile=scott\_%U.dmp logfile=EXP\_SCOTT.log schemas=scott parallel=4 &

**-- JDBC using wallet**

Connection conn = DriverManager.getConnection ("jdbc:oracle:oci:/@BSA1EP");

**Step 1: Create Oracle Wallet Directory**

SET LINES 180  
COL wrl\_type FORMAT a12  
COL wrl\_parameter FORMAT a35  
COL status FORMAT a30  
select \* from v$encryption\_wallet;

WRL\_TYPE WRL\_PARAMETER STATUS WALLET\_TYPE WALLET\_OR KEYSTORE FULLY\_BAC CON\_ID

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FILE /oracle/admin/BSA1EP/wallet NOT\_AVAILABLE UNKNOWN SINGLE NONE UNDEFINED 0

SQL> exit  
Disconnected from Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 – Production  
Version 19.3.0.0.0  
[oracle@dg1 ~]$ cd /oracle/admin/BSA1EP/wallet  
-bash: cd: /oracle/admin/BSA1EP/wallet: No such file or directory  
[oracle@dg1 ~]$   
[root@dg1 ~]# mkdir -p /u01/admin/BSA1EP/wallet  
[root@dg1 ~]# chown -R raj:raj /u01/admin/BSA1EP/wallet

**Step 2: Create TNS ADMIN Directory (For OS user raj)**

[root@dg1 ~]# mkdir -p /u01/admin/BSA1EP/wallet/TNS\_ADMIN  
[root@dg1 ~]# chown -R raj:raj /u01/admin/BSA1EP/wallet/TNS\_ADMIN

**Step 3: Add TNS Entry (For OS user oracle)**

[oracle@dg1 admin]$ cat /oracle/1900/network/admin/sqlnet.ora  
# sqlnet.ora Network Configuration File: /oracle/1900/network/admin/sqlnet.ora  
# Generated by Oracle configuration tools.  
NAMES.DIRECTORY\_PATH= (TNSNAMES)  
SQLNET.WALLET\_OVERRIDE = FALSE  
SSL\_CLIENT\_AUTHENTICATION = FALSE  
SSL\_VERSION = 0  
WALLET\_LOCATION=(SOURCE=(METHOD=FILE)(METHOD\_DATA=(DIRECTORY=/u01/admin/BSA1EP/wallet)))  
[oracle@dg1 admin]$  
[oracle@dg1 admin]$ cat /oracle/1900/network/admin/tnsnames.ora  
# tnsnames.ora Network Configuration File: /oracle/1900/network/admin/tnsnames.ora  
# Generated by Oracle configuration tools.

BSA1EP =  
 (DESCRIPTION =  
 (ADDRESS\_LIST =  
 (ADDRESS = (PROTOCOL = TCP)(HOST = dg1.rajasekhar.com)(PORT = 1622))  
 )  
 (CONNECT\_DATA =  
 (SERVICE\_NAME = BSA1EP)  
 )  
 )

[oracle@dg1 admin]$

**Step 4: Export Oracle Variables**

[raj@dg1 ~]$ export ORACLE\_SID=BSA1EP  
[raj@dg1 ~]$ export ORACLE\_HOME=/oracle/1900  
[raj@dg1 ~]$ export PATH=$ORACLE\_HOME/bin:$PATH  
[raj@dg1 ~]$ export TNS\_ADMIN=/u01/admin/BSA1EP/wallet/TNS\_ADMIN  
[raj@dg1 ~]$ export DB\_LOGIN\_ID=test  
[OR]  
[raj@dg1 ~]$ . oraenv

ORACLE\_SID = [BSA1EP] ?  
ORACLE\_BASE environment variable is not being set since this  
information is not available for the current user ID raj.  
You can set ORACLE\_BASE manually if it is required.  
Resetting ORACLE\_BASE to its previous value or ORACLE\_HOME  
The Oracle base remains unchanged with value /oracle/1900  
[raj@dg1 ~]$  
[raj@dg1 ~]$ export TNS\_ADMIN=/u01/admin/BSA1EP/wallet/TNS\_ADMIN  
[raj@dg1 ~]$

**Step 5: Create password protected Oracle Wallet in secured location using orapki**

[raj@dg1 wallet]$ pwd  
/u01/admin/BSA1EP/wallet  
[raj@dg1 wallet]$ ls -ltr  
total 0  
drwxr-xr-x 2 raj raj 44 Feb 5 23:15 TNS\_ADMIN  
[raj@dg1 wallet]$

[raj@dg1 ~]$ id  
uid=1000(raj) gid=1000(raj) groups=1000(raj),10(wheel)|  
[raj@dg1 ~]$

[raj@dg1 wallet]$ **orapki wallet create -wallet /u01/admin/BSA1EP/wallet -auto\_login**  
Oracle PKI Tool Release 19.0.0.0.0 – Production  
Version 19.3.0.0.0  
Copyright (c) 2004, 2019, Oracle and/or its affiliates. All rights reserved.

**Enter password:  
Enter password again:**Operation is successfully completed.[raj@dg1 wallet]$

[raj@dg1 wallet]$ ls -ltr /u01/admin/BSA1EP/wallet  
total 8  
drwxr-xr-x 2 raj raj 44 Feb 5 23:15 TNS\_ADMIN  
-rw------- 1 raj raj 0 Feb 5 23:57 ewallet.p12.lck  
-rw------- 1 raj raj 149 Feb 5 23:57 ewallet.p12  
-rw------- 1 raj raj 0 Feb 5 23:57 cwallet.sso.lck  
-rw------- 1 raj raj 194 Feb 5 23:57 cwallet.sso  
[raj@dg1 wallet]$

[raj@dg1 wallet]$ chmod 644 \*wallet\*  
[raj@dg1 wallet]$ ll  
total 8  
-rw-r--r-- 1 raj raj 581 Feb 6 02:14 cwallet.sso  
-rw-r--r-- 1 raj raj 0 Feb 5 23:57 cwallet.sso.lck  
-rw-r--r-- 1 raj raj 536 Feb 6 02:11 ewallet.p12  
-rw-r--r-- 1 raj raj 0 Feb 5 23:57 ewallet.p12.lck  
drwxr----- 2 raj raj 44 Feb 5 23:15 TNS\_ADMIN  
[raj@dg1 wallet]$

[oracle@dg1 admin]$ id oracle  
uid=54321(oracle) gid=54321(oinstall) groups=54321(oinstall),54322(dba),54331(asmadmin),54332(asmdba)  
[oracle@dg1 admin]$

[oracle@dg1 admin]$ sqlplus / as sysdba  
SQL\*Plus: Release 19.0.0.0.0 - Production on Sun Feb 6 00:19:59 2022  
Version 19.3.0.0.0  
Copyright (c) 1982, 2019, Oracle. All rights reserved.  
Connected to:  
Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 – Production  
Version 19.3.0.0.0

SQL> set lines 190  
SQL> COL wrl\_type FORMAT a12  
SQL> COL wrl\_parameter FORMAT a35  
SQL> COL status FORMAT a30  
SQL> select \* from v$encryption\_wallet;

WRL\_TYPE WRL\_PARAMETER STATUS WALLET\_TYPE WALLET\_OR KEYSTORE FULLY\_BAC CON\_ID

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FILE /u01/admin/BSA1EP/wallet/ OPEN\_NO\_MASTER\_KEY UNKNOWN SINGLE NONE UNDEFINED 0

SQL>

**Step 6: Add database login credentials to the wallet using mkstore**

Enter user-name: / as sysdba  
Connected to:  
Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 – Production  
Version 19.3.0.0.0  
SQL> **alter user test identified by test123;**  
User altered.  
SQL> **grant connect to test;**  
Grant succeeded.  
[raj@dg1 ~]$ id  
uid=1000(raj) gid=1000(raj) groups=1000(raj),10(wheel)  
[raj@dg1 ~]$  
[raj@dg1 ~]$ **mkstore -wrl /u01/admin/BSA1EP/wallet -createCredential BSA1EP test**  
Oracle Secret Store Tool Release 19.0.0.0.0 – Production  
Version 19.3.0.0.0  
Copyright (c) 2004, 2019, Oracle and/or its affiliates. All rights reserved.  
Your secret/Password is missing in the command line  
**Enter your secret/Password:**  
**Re-enter your secret/Password:**  
**Enter wallet password:**  
[raj@dg1 ~]$

**Step 7: Verify DB connection**

[raj@dg1 ~]$ id  
uid=1000(raj) gid=1000(raj) groups=1000(raj),10(wheel)  
[raj@dg1 ~]$  
[raj@dg1 ~]$ export TNS\_ADMIN=/u01/admin/BSA1EP/wallet/TNS\_ADMIN  
[raj@dg1 ~]$  
[raj@dg1 ~]$ **sqlplus /@BSA1EP**

SQL\*Plus: Release 19.0.0.0.0 - Production on Sun Feb 6 00:40:23 2022  
Version 19.3.0.0.0  
Copyright (c) 1982, 2019, Oracle. All rights reserved.  
Last Successful login time: Sat Feb 05 2022 20:15:40 +08:00  
Connected to:  
Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 – Production  
Version 19.3.0.0.0  
SQL> show user  
USER is "TEST"  
SQL>

**Step 8: List Credential stored in a wallet**

[raj@dg1 ~]$ id  
uid=1000(raj) gid=1000(raj) groups=1000(raj),10(wheel)  
[raj@dg1 ~]$  
[raj@dg1 ~]$ **mkstore -wrl /u01/admin/BSA1EP/wallet -listCredential**  
Oracle Secret Store Tool Release 19.0.0.0.0 – Production  
Version 19.3.0.0.0  
Copyright (c) 2004, 2019, Oracle and/or its affiliates. All rights reserved.  
Enter wallet password:  
List credential (index: connect\_string username)  
1: BSA1EP test

[raj@dg1 ~]$

**Step 9: Modify credential stored in wallet (Update DB user password)**

[oracle@dg1 ~]$ sqlplus / as sysdba  
SQL\*Plus: Release 19.0.0.0.0 - Production on Sun Feb 6 00:45:36 2022  
Version 19.3.0.0.0  
Copyright (c) 1982, 2019, Oracle. All rights reserved.  
Connected to:  
Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 – Production  
Version 19.3.0.0.0  
SQL> **alter user test identified by test999;**  
User altered.  
SQL>

[raj@dg1 ~]$ id  
uid=1000(raj) gid=1000(raj) groups=1000(raj),10(wheel)  
[raj@dg1 ~]$  
[raj@dg1 ~]$ **mkstore -wrl /u01/admin/BSA1EP/wallet -modifyCredential BSA1EP test test999**  
Oracle Secret Store Tool Release 19.0.0.0.0 – Production  
Version 19.3.0.0.0  
Copyright (c) 2004, 2019, Oracle and/or its affiliates. All rights reserved.  
Enter wallet password:  
[raj@dg1 ~]$  
[raj@dg1 ~]$ export TNS\_ADMIN=/u01/admin/BSA1EP/wallet/TNS\_ADMIN  
[raj@dg1 ~]$  
[raj@dg1 ~]$ **sqlplus /@BSA1EP**  
SQL\*Plus: Release 19.0.0.0.0 - Production on Sun Feb 6 00:48:03 2022  
Version 19.3.0.0.0  
Copyright (c) 1982, 2019, Oracle. All rights reserved.  
Last Successful login time: Sun Feb 06 2022 00:40:24 +08:00  
Connected to:  
Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 – Production  
Version 19.3.0.0.0  
SQL> show user  
USER is "TEST"

**Step 10: To view an Oracle wallet**

[raj@dg1 ~]$ **orapki wallet display -wallet /u01/admin/BSA1EP/wallet**

Oracle PKI Tool Release 19.0.0.0.0 – Production  
Version 19.3.0.0.0  
Copyright (c) 2004, 2019, Oracle and/or its affiliates. All rights reserved.

Requested Certificates:  
User Certificates:  
Oracle Secret Store entries:  
oracle.security.client.connect\_string1  
oracle.security.client.password1  
oracle.security.client.username1  
Trusted Certificates:

[raj@dg1 ~]$

**Step 11: To change an Oracle wallet password**

orapki wallet change\_pwd -wallet /u01/admin/BSA1EP/wallet [-oldpwd password ] [-newpwd password]  
**orapki wallet change\_pwd -wallet /u01/admin/BSA1EP/wallet -oldpwd "Oracle@123" -newpwd "oracle123"**

[raj@dg1 ~]$ orapki wallet change\_pwd -wallet /u01/admin/BSA1EP/wallet  
Oracle PKI Tool Release 19.0.0.0.0 – Production  
Version 19.3.0.0.0  
Copyright (c) 2004, 2019, Oracle and/or its affiliates. All rights reserved.  
Enter wallet password:  
Enter New Wallet Password:  
Confirm Wallet Password:  
Wallet password has been changed.  
[raj@dg1 ~]$

**Step 12: Delete Credential stored in wallet**

[raj@dg1 ~]$ **mkstore -wrl /u01/admin/BSA1EP/wallet -deleteCredential BSA1EP**  
Oracle Secret Store Tool Release 19.0.0.0.0 – Production  
Version 19.3.0.0.0  
Copyright (c) 2004, 2019, Oracle and/or its affiliates. All rights reserved.  
Enter wallet password:  
[raj@dg1 ~]$

[raj@dg1 ~]$ **mkstore -wrl /u01/admin/BSA1EP/wallet -listCredential**  
Oracle Secret Store Tool Release 19.0.0.0.0 – Production  
Version 19.3.0.0.0  
Copyright (c) 2004, 2019, Oracle and/or its affiliates. All rights reserved.  
Enter wallet password:  
List credential (index: connect\_string username) <--- no output  
[raj@dg1 ~]$

**Step 13: Delete Oracle Wallet**

To delete an Oracle wallet, we can directly delete the wallet direectory and files

[raj@dg1 ~]$ ls -ltr /u01/admin/BSA1EP/wallet  
total 8  
drwxr-xr-x 2 raj raj 44 Feb 5 23:15 TNS\_ADMIN  
-rw------- 1 raj raj 0 Feb 5 23:57 ewallet.p12.lck  
-rw------- 1 raj raj 0 Feb 5 23:57 cwallet.sso.lck  
-rw------- 1 raj raj 149 Feb 6 01:06 ewallet.p12  
-rw------- 1 raj raj 194 Feb 6 01:06 cwallet.sso  
[raj@dg1 ~]$  
[raj@dg1 ~]$ **rm -f /u01/admin/BSA1EP/wallet/\*wallet\***

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