Oracle® Fusion Middleware

Installation Guide for ADF Mobile Transaction Replay Service

11g Release 1 (11.1.1.5.0)

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The ADF Mobile transaction replay service replays transactions that occur on the mobile device while it is disconnected. The ADF Mobile transaction replay service component is a critical component of ADF Mobile client and requires a separate installation.

The following sections provide information on installation, configuration, and uninstallation of ADF Mobile transaction replay service component:

- Installing ADF Mobile Transaction Replay Service
- Configuring ADF Mobile Transaction Replay Service in Enterprise Manager
- Configuring ADF Mobile Transaction Replay Service in JDeveloper
- Uninstalling ADF Mobile Transaction Replay Service

1 Installing ADF Mobile Transaction Replay Service

This release of ADF Mobile transaction replay service is tested and supported on specific versions of Windows and Linux.

1.1 System Requirements

Before you run the installer program, ensure that the prerequisites listed in Table 1 are met.

Component Requirement			
Operating System	 Windows XP or above 		
	Linux		
JDK	Version 1.6 or above. Ensure that PATH is set to bin directory.		
	Windows example:		
	PATH = C:\JDK\bin		
	Linux example:		
	PATH =:/usr/java/jdk/bin		
Database	Oracle Database 10.0.2.2 or above, installed with privilege to create new schema.		
JDeveloper	Oracle JDeveloper 11.1.1.x.x or above.		

Table 1System Requirements

ORACLE

Component	Requirement		
Application Server	WebLogic Server 10.0.3 or above, installed with a JRF extension domain.		
Enterprise Manager	Enterprise Manager Fusion Middleware Control.		
	Create a domain with Enterprise Manager and install JRF extension. For more information about Fusion Middleware Control, see the <i>Oracle Application Server Administrator's Guide</i> .		

 Table 1 (Cont.) System Requirements

1.2 Downloading the ADF Mobile Client Extension

The ADF Mobile transaction replay service is a part of the ADF Mobile Client JDeveloper Extension.

To download the ADF Mobile Client Extension:

- 1. Open JDeveloper.
- 2. From the Help menu, choose Check for Updates.
- **3.** In the Welcome page of the Check for Updates wizard, click **Next** to continue.
- **4.** In the Source page of the wizard, JDeveloper populates the list area with update centers available.

Click Next to continue.

5. In the Updates page of the wizard, JDeveloper populates the list area with available updates. After the list is populated, select the **ADF Mobile Client** checkbox, as shown in Figure 1. Note that the version number of ADF Mobile Native Client might not be same as shown in Figure 1.

Figure 1 JDeveloper Check for Updates Wizard

Jpdates	
© Welcome	The following updates are available. Check the updates you want to install.
Source	Available Updates:
Updates	ADE Extension 11.1.1.4.37.57.85
Download	Provides Versioning Support for ADE 3.2 Details From center: Internal Automatic Updates
 Summary 	ADF Framework Source 11.1.1.4.37.57.85
	Provides source code for ADF runtime Details From center; Internal Automatic Updates
	✓ ADF Mobile Client 11.1.1.4.37.57.85
	Provides the components required for the development of ADF Mobile Native Client applications in JDeveloper. ADF Mobile Native Client provides an application development environment and framework to develop and deploy on-device, Java-based mobile applications for BlackBerry and Windows Mobile devices. From center: Internal Automatic Updates
	ADFBC Tests 11.1.1.4.37.57.85 Automated tests for ADEBC Show Upgrades Only Select All Deselect All

Click Next to continue.

6. In the Download page of the wizard, JDeveloper downloads the selected extension.

When the download is complete, click **Next** to continue.

7. The Summary page of the wizard, summarizes the downloaded extension.

Click **Finish** to close the wizard.

8. Restart JDeveloper.

After JDeveloper restarts, the following ADF Mobile transaction replay service files are added to <MW_HOME>/jdeveloper/trs, where MW_HOME is the Middleware Home directory.

- trs_template.jar
- \lib\trs_ejb.jar
- \security\README.txt
- \security\test.jks
- \security\test_cwallet.sso
- \db_scripts*
- other files and directories

1.3 Launching the Installer

To install the ADF Mobile transaction replay service component, you must use the WebLogic Configuration Wizard to extend your application's WebLogic domain. To extend the domain, use the ADF Mobile transaction replay service component's template file trs_template.jar available in the <MW_HOME>/jdeveloper/trs directory. If you are using Enterprise Manager to manage ADF Mobile transaction replay service, the template must be installed on a base domain that is created from Enterprise Manager Fusion Middleware Control.

Before you proceed, ensure that you have administrative access to the database server used by the ADF Fusion web application. The installer creates and populates the database server with ADF Mobile transaction replay service schema.

To install the ADF Mobile Transaction Replay Service Component:

- Open the Fusion Middleware Configuration Wizard. From the Windows Start Menu, choose All Programs > Oracle Fusion Middleware 11.1.1.x.x > WebLogic Server 11gR1 > Tools > Configuration Wizard.
- 2. In the Welcome page, choose Extend an existing WebLogic domain.

Click Next to continue.

3. In the Select a WebLogic Domain Directory page, browse and select the domain directory of your Fusion web application.

Click Next to continue.

4. In the Select Extension Source page, select Extend my domain using extension template. In Template Location, click Browse and select the trs_template.jar file <MW_HOME>/jdeveloper/trs directory.

Click Next to continue.

5. In the Configure JDBC Data Sources page, verify that TrsAdminDS is the data source, as shown in Figure 2. Select the checkbox corresponding to TrsAdminDS row, and change the Host Name, Username, and Password to the location you want to deploy the TRS schema to. The data source could be, but is not required to be, the same database that the base Fusion web application is configured with.

Fusion A	Middleware Configuratio	n Wizard				
Configure	e JDBC Data Sources					ORACLE
Note: Cha	ange only the input fields below	/ that you wish to modify	y and values will be applic	ed to all selecter	d rows.	
Vendor:	Oracle	-	DB	MS/Service: or	rcl	
Driver:	*Oracle's Driver (Thin) for Se	ervice connections; Vers	ions:9.0.1 and la	Host Name: C	HANGEME	
Username:	TRSADMIN			Port: 15	521	
Password:	Enter a value					
	Data Source	DBMS/Service	Host Name	Port	Username	Password
TrsA	AdminDS	orcl	CHANGEME	1521	TRSADMIN	
Exit						

Figure 2 Configure JDBC Sources page of Fusion Middleware Configuration Wizard

Click Next to continue.

6. In the Test JDBC Data Sources page, click **Test Connection** to verify the JDBC options you specified in the Configure JDBC Data Sources screen. After the connection is successful, a Test Successful! message appears in the Connection Result Log area.

Click **Next** to continue.

7. In the Run Database Scripts page, click **Run Scripts** to populate the schema with tables and records. After the scripts run successfully, a Database Load Successful! message appears in the Results area. If you want to create a log file, select the **Log File** checkbox and specify the log file's location.

Click Next to continue.

8. In the Select Optional Configuration page, if required, select desired options.

Click **Next** to continue.

9. In the Configuration Summary screen, verify your settings that you have configured in the previous pages.

Click Extend to extend the domain.

10. In the Creating Domain page, click **Done** to close the wizard.

11. Start Oracle WebLogic Server.

2 Configuring ADF Mobile Transaction Replay Service in Enterprise Manager

You can configure the ADF Mobile transaction replay service component from Enterprise Manager Fusion Middleware Control. Note that Enterprise Manager is not required for configuring ADF Mobile transaction replay service, but it provides a user interface for administrative tasks such as adjusting log levels, change MBean variables and configure credential stores. For more information about Fusion Middleware Control, see the "Getting Started Using Oracle Enterprise Manager Fusion Middleware Control" section in the Oracle Fusion Middleware Administrator's Guide.

To configure the Dispatcher of ADF Mobile Transaction Replay Service Component:

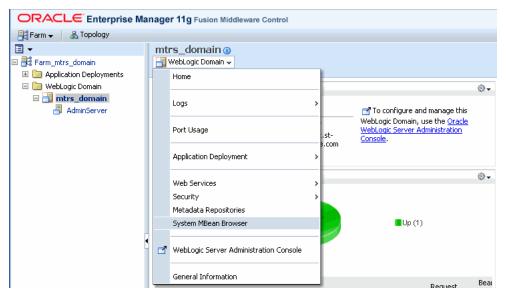
1. Open Enterprise Manager.

Navigate to the following URL and log in using the administrator username and password:

http://<server_name:port>/em

- In the left panel of Enterprise Manager console, choose Farm_your_domain > WebLogic Domain > your_domain.
- **3.** On the right panel, click **WebLogic Domain**, and choose **System MBean Browser** from the dropdown list, as shown in Figure 3.

Figure 3 Enterprise Manager Fusion Middleware Control



- **4.** In the left pane of the System MBean Browser page, select **Application Defined MBeans**.
- Expand Application Defined MBeans and choose oracle.txnreplay > Server:Admin Server >DispatcherSettings.
- **6.** In the Attributes page of Dispatcher, update the **URL** field to match the server's address and port number.

For example, http://localhost:7001/trs_
txnreplayer/workerservlet, as shown in Figure 4.

System MBean Browser Application Defined MBeans: DispatcherSettings:Dispatcher Apply Revert 🚳 🍸 6 Show MBean Information 🗄 🚞 Configuration MBeans Attributes 🗄 🚞 Runtime MBeans Name Description maximum number or database Access Value E 🔁 Application Defined MBeans 🗄 🚞 EMDomain ^ 5 DispatcherDBRetries 3 operation retries for R₩ 표 🚞 com.oracle.igf Dispatcher 🗉 🚞 com.oracle.jdbc Retry interval in milliseconds for Dispatcher database operation DispatcherDBRetryInterval RW 1000 6 표 🚞 com.oracle.jps 🗄 🚞 emoms.props Timeout interval in minutes 🗄 🚞 emomslogging.props 7 ItemProcessingTimeout before a Transaction RW 10 🗄 🚞 oracle.as.util Replayer times out 표 🚞 oracle.dfw Timeout interval in minutes. 🗄 🚞 oracle.dms 8 JobProcessingTimeout before a job times out, when stuck at status Processing R₩ 60 표 🚞 oracle.dms.event.config Number of consecutive retries 표 🚞 oracle.j2ee.config 9 JobRetries 10 RW for Dispatcher to resubmit a 🗄 🚞 oracle.joc iob with an error status 🗄 🚞 oracle.iocssl Timeout interval in minutes. 🗄 🚞 oracle.jrf before a job times out, when stuck at status New or 10 JobSubmittedTimeout RW 20 표 🚞 oracle.jrf.server 🗄 🚞 oracle.logging Submitted Time in milliseconds to pause 표 🚞 oracle.mds.lcm before reading and processing transaction replay 11 🖃 🚞 oracle.txnreplay LoopDelay R₩ 1000 🖃 🚞 Server: AdminServer 🗉 🚞 DispatcherRuntimeInfo URL for submitting a 12 URL RW http://localhost:7001/trs_txnreplaye 🖃 🚞 DispatcherSettings transaction replay job Sispatcher Connection timeout interval in 13 URLConnectionTimeout 60 🗄 🚞 TxnReplayerSettings seconds for the replay job RW submission URL 🗄 🚞 WebServiceSettings Read timeout interval in 14 URLReadTimeout seconds for the replay job submission URL R₩ 60

Figure 4 Dispatcher Attributes page

- **7.** If required, configure the logging levels.
 - **a.** Navigate to the AdminServer page. In the left panel, choose **Farm_***your_domain* > **WebLogic Domain** > *your_domain* > **AdminServer**.
 - **b.** In the right pane, open the **WebLogic Server** dropdown list. From the **Logs** submenu, choose **Log Configuration**.
 - **c.** In the Log Levels tab of Log Configuration page, adjust the following log levels, as shown in Figure 5:

oracle.txnreplay.dispatcher oracle.txnreplay.txnreplayer oracle.txnreplay.webservice oracle.txnreplay.common

∃ -	🔂 AdminServer 🗿	Logged in as weblogic	HUSC .
📴 Farm_mtrs_domain	🚽 WebLogic Server 🗸	Page R	Refreshed Aug 23, 2010 2:22:14 PM I
🗉 🚞 Application Deployments			
🖃 🚞 WebLogic Domain	Log Configuration		
Image: Second state in the second state in the second state is a second state in the second state in th	Use this page to configure basic and advanced log	configuration settings.	
	Log Levels Log Files		
	This page allows you to configure the log level for	ooth persistent loggers and active runtime loggers. Persis	stept Acato Down
	loggers are loggers that are saved in a configuration	on file and become active when the component is started	I. The log
	levels for these loggers are persisted across comp runtime and become active when a particular featu	onent restarts. Runtime loggers are automatically created	d during
	oracle.j2ee.ejb.deployment.Logger is a runtime log	ger that becomes active when an EJB module is deploye	d. Log
	levels for runtime loggers are not persisted across	component restarts.	-
	View Runtime Loggers		
	Search All Categories 💌		
	Logger Name	Oracle Diagnostic Logging Level (Java Level)	Log File
		NOTIFICATION:1 (INFO) [Inher 💟	odl-handler
		NOTIFICATION:1 (INFO) [Inher V NOTIFICATION:1 (INFO) [Inher V	odl-handler
	oracle.mds	NOTIFICATION:1 (INFO) [Inher 💙	odl-handler
	ir oracle.mds ir oracle.odl	NOTIFICATION:1 (INFO) [Inher V NOTIFICATION:1 (INFO) [Inher V	odl-handler odl-handler
	oracle.mds oracle.odl oracle.security	NOTIFICATION:1 (INFO) [Inher V NOTIFICATION:1 (INFO) [Inher V NOTIFICATION:1 (INFO) [Inher V	odi-handler odi-handler odi-handler em-log-handler
	e oracle.nds e oracle.odl e oracle.security e oracle.sysman	NOTIFICATION:1 (INFO) [Inher V NOTIFICATION:1 (INFO) [Inher V NOTIFICATION:1 (INFO) [Inher V	odl-handler odl-handler odl-handler em-log-handler em-trc-handler
	oracle.odl oracle.security oracle.security oracle.syman oracle.txnreplay	NOTIFICATION:1 (INFO) [Inher V NOTIFICATION:1 (INFO) [Inher V NOTIFICATION:1 (INFO) [Inher V NOTIFICATION:1 (INFO) [Inher V	odi-handler odi-handler odi-handler em-log-handler em-trc-handler odi-handler
	oracle.nds oracle.odl oracle.security oracle.sysman oracle.txmreplay.common	NOTIFICATION: 1 (INFO) [Inher V NOTIFICATION: 1 (INFO) [Inher V NOTIFICATION: 1 (INFO) [Inher V NOTIFICATION: 1 (INFO) [Inher V NOTIFICATION: 1 (INFO) [Inher V	odl-handler odl-handler odl-handler em-tog-handler em-tro-handler odl-handler
	oracle.inds oracle.odl oracle.security oracle.sysman oracle.txmreplay oracle.txmreplay.common oracle.txmreplay.dispatcher	NOTIFICATION:1 (INFO) [Inher V NOTIFICATION:1 (INFO) [Inher V	odl-handler odl-handler odl-handler em-to-handler odl-handler odl-handler odl-handler
	oracle.mds oracle.mds oracle.odl oracle.security oracle.syman oracle.txmreplay oracle.txmreplay.common oracle.txmreplay.txmreplayer oracle.txmreplay.txmreplayer oracle.txmreplay.txmreplayer	NOTIFICATION: 1 (INFO) [Inher V NOTIFICATION: 1 (INFO) [Inher V NOTIFICATION: 1 (INFO) [Inher V V NOTIFICATION: 1 (INFO) [Inher V NOTIFICATION: 1 (INFO) [Inher V NOTIFICATION: 1 (INFO) [Inher V	odi-handler odi-handler odi-handler em-to-handler em-trc-handler odi-handler odi-handler odi-handler
	oracle.nds oracle.nds oracle.security oracle.sysman oracle.txrreplay.common oracle.txrreplay.common oracle.txrreplay.common oracle.txrreplay.txrreplay.txrreplay.extremelay.txrreplay.txrreplay.txrreplay.txrreplay.txrreplay.txrreplay.extremelay.txrreplay.txrreplay.extremelay.txrreplay.txrreplay.txrreplay.extremelay.txrreplay.txrreplay.extremelay.txrreplay.txrreplay.extremelay.txrreplay.txrreplay.txrreplay.txrreplay.txrreplay.txrreplay.txrreplay.txrreplay.extremelay.txrreplay.txrre	NOTIFICATION: 1 (INFO) [Inher V NOTIFICATION: 1 (INFO) [Inher V	odl-handler odl-handler odl-handler em-log-handler em-tro-handler odl-handler odl-handler odl-handler odl-handler

Figure 5 Adjust Log Levels in Log Configuration page

d. When you are done, click **Apply**.

2.1 Configure Public Key Encryption for ADF Mobile Transaction Replay Service

The ADF Mobile transaction replay service establishes a mobile user's credential for authentication during replaying a replay item. The credential consists of a username and a password. The ADF Mobile transaction replay service relies on Public Key Encryption to secure passwords sent from a mobile device.

The ADF Mobile transaction replay service is packaged with a test keystore and a test certificate. A keystore is a database of keys. By default, the ADF Mobile transaction replay service uses the test certificate for public key encryption with a warning message Test certificate is used for public key encryption. This test certificate is provided for ease of set up in the application development stage

2.1.1 Configuring Key Password and Keystore Password

The ADF Mobile transaction replay service requires access to the keystore and the private key of the certificate. You must contact your administrator to create a keystore. The administrator can use the keytool utility that is distributed with the JDK to create and manage the keys and certificates in the Java keystore. For more information about Java keystore, see Java documentation.

Access to the keystore and the private key must be protected by passwords. You must configure the passwords in the credential store framework.

To configure passwords in the credential store

1. Open Enterprise Manager. Navigate to the following URL and log in using the administrator username and password:

http://<server_name:port>/em

- In the left panel of Enterprise Manager console, choose Farm_your_domain > WebLogic Domain > your_domain.
- **3.** On the right panel, click **WebLogic Domain** to open the dropdown list. From the **Security** submenu, choose **Credentials**.
- **4.** In the Credentials page, click **Create Map**. You must create a key map before you create a security key.

Enter a unique name for the key map in the Create Map popup window, and click **OK**.

5. Select the key map, and click **Create Key**.

In the Create Key popup window, enter the values in the fields, as described in Table 3.

Field	Action
Select Map	Select the key map name you created in Step 4.
Key	Enter KeyStorePass as the key name.
Туре	Select Password as the key type.
User Name	Enter the value set in the MBean attribute KeystorePassCSFKey from TxnReplayerSettings as described in Figure 6. The default value is KeyStorePass.
Password	Enter a password of the keystore.
Description	Enter a description for the key, if desired.

Table 2Key Attributes

6. Click OK.

- 7. Follow the process described in step 5 and create another key.
 - a. Set the value of field **Key** to KeyPass. For the field **User Name**, enter the value set in the MBean attribute KeyPassCSFKey from **TxnReplayerSettings** as described in Figure 6. The default value is KeyPass.
 - **b.** In the **Password** field, enter the password for the private key.
 - c. Click OK.

The above configuration in Credentials page would look similar to Figure 6.

Figure 6 Credentials page in Enterprise Manager console

Credentials

A credential store is the repository of security data that certify the authority of entities used by Java 2, J2EE, and ADF applications. Applications can use the Credential Store, a single, consolidated service provider to store and manage their credentials securely.

Scope WebLogic Domain		
Provider SSP		
Location ./		
🐈 Create Map 🛛 🐈 Create Key 📔 🥖	Edit 💥 Delete	
Credential	Туре	Description
🖃 🚞 mtrs_key_map		
ReyStorePass	Password	
V KeyblurePass	Fassword	

2.1.2 Configuring Access to Credential Store Framework

For ADF Mobile transaction replay service to read the passwords from the credential store, you must grant permissions to txnreplayer and webservice components to read the **trs** credential store map. You configure the grants in the domain policy store.

To configure access to credential store framework:

1. Open the domain policy store file. The file is saved as system-jazn-data.xml in the <DOMAIN_HOME>\config\fmwconfig directory.

For example, if your Middleware Home directory is D:\JDevMobile and your domain name is mtrs_domain, then the domain policy store file is available in D:\JDevMobile\user_projects\domains\mtrs_ domain\config\fmwconfig.

2. Verify the permissions set for txnreplayer and webservice components. The following code shows txnreplayer and webservice settings required to access credential store framework:

```
<grant>
  <grantee>
    <codesource>
      <url>
  file:${domain.home}/servers/${weblogic.Name}/tmp/_WL_user/txnreplayer/-
      </url>
    </codesource>
  </grantee>
  <permissions>
    <permission>
      <class>
        oracle.security.jps.service.credstore.CredentialAccessPermission
      </class>
      <name>
        context=SYSTEM,mapName=trs,keyName=*
      </name>
      <actions>read</actions>
    </permission>
  </permissions>
</grant>
<grant>
  <grantee>
    <codesource>
      <url>
file:${domain.home}/servers/${weblogic.Name}/tmp/_WL_user/webservice/-
      </url>
    </codesource>
  </grantee>
  <permissions>
    <permission>
      <class>
        oracle.security.jps.service.credstore.CredentialAccessPermission
      </class>
      <name>
        context=SYSTEM, mapName=trs, keyName=*
      </name>
      <actions>read</actions>
    </permission>
  </permissions>
</grant>
```

2.1.3 Configuring Keystore URL, Keystore Type and Certificate Alias

As an administrator, you should configure keystore URL, keystore type and certificate alias to use the proper certificate.

To configure keystore URL, keystore type, and certificate alias:

1. Open Enterprise Manager. Navigate to the following URL and log in using the administrator username and password:

http://<server_name:port>/em

- In the left panel of Enterprise Manager console, choose Farm_your_domain > WebLogic Domain > your_domain.
- **3.** On the right panel, click **WebLogic Domain**, and choose **System MBean Browser** from the dropdown list.
- **4.** In the left pane of the System MBean Browser page, select **Application Defined MBeans**.
- Expand Application Defined MBeans and choose oracle.txnreplay > Server:Admin Server >TxnReplayerSettings, as shown in Figure 7.

In the Attributes page of TxnReplayer, update the fields listed in Table 3.

Table 3 TxnReplayer Attributes

Field	Value
CertificateAlias	Enter the certificate alias of the key pairs. The certificate alias is a simple name that is defined in the Java keystore file.
	For example, testTxn is a valid alias name.
KeyStoreType	JKS
KeyStoreURL	Enter the URL of keystore file.
	You can use the KeyStoreURL field to specify the path of the file, if the keystore file exists on the local host machine. For example, file:///C:/JDevMobile/user_projects/test.jks.

Figure 7 TxnReplayer Attributes page

Application Defined MBeans EMDomain		Vame			
🗄 🚞 EMDomain			Description	Access	Value
	1	BackupDataSourceName	Backup datasource name containing TRS tables	R₩	
🗄 🚞 com.oracle.igf 🗄 🚞 com.oracle.jdbc	2	CertificateAlias	Alias specifying the certificate and key pair used by TRS public key encryption	RW	
🗄 🦲 com.oracle.jps	3	DataSourceName	Data source name containing TRS tables	RW	jdbc/TrsAdminDS
🗄 🚞 emoms.props 🗄 🚞 emomslogging.props	4	DBRetries	Maximum number of retries to get a database connection in case of failure	RW	2
🗄 🧰 oracle.as.util	5	DBRetryInterval	Retry interval in milliseconds to get database connection	RW	1000
🗉 🚞 oracle.dfw	6	HttpSocketTimeout	HTTP socket timeout in minutes	RW	20
⊞ 🛄 oracle.dms ⊞ 🚞 oracle.dms.event.config	7	KeyPassCSFKey	Credential store key value to retrieve the key password (optional)	RW	KeyPass
🗄 🚞 oracle.j2ee.config 🗄 🚞 oracle.joc	8	KeyPassCSFMap	Credential store map value to retreive the key password (optional)	RW	trs
🗄 🚞 oracle.jocssl	9	KeystorePassCSFKey	Credential store key value to retrieve the keystore password	RW	KeystorePass
🗄 🚞 oracle.jrf 🗄 🚞 oracle.jrf.server	10	KeystorePassCSFMap	Credential store map value to retreive the keystore password	RW	trs
🗉 🧰 oracle.logging	11	KeystoreProvider	Security provider for opening the keystore (optional)	RW	
🗄 🚞 oracle.mds.lcm 🖃 🚞 oracle.txnreplay	12	KeystoreType	Type of the keystore	RW	JKS
🖃 🛄 oracie.cxnrepiay 🖃 🚞 Server: AdminServer	13	KeystoreURL	Keystore file URL	RW	
E DispatcherRuntimeInfo	14	NumTxnReplayerThreads	Number of Transaction Replayer threads on the server	RW	20
🗉 应 DispatcherSettings 🖃 🗀 TxnReplayerSettings	15	TxnReplayerDBRetries	Maximum number of database operation retries for Transaction Replayer	RW	3
TxnReplayer Image: State of the st	16	TxnReplayerDBRetryInterval	Retry interval in milliseconds for Transaction Replayer database operation	RW	1000
E C Webber Weebechings	17	XsdURL	Default XSD URL	RW	

- 6. Click Apply.
- **7.** Again, in the left pane of the System MBean Browser page, select **Application Defined MBeans**.
- 8. Expand Application Defined MBeans and choose oracle.txnreplay > Server:Admin Server > WebServiceSettings.
- **9.** In the WebService attributes page, add values for **CertificateAlias**, **KeyStoreType**, and **KeyStoreURL**, as described in step 5.
- **10.** Click **Apply** when you are done.

3 Configuring ADF Mobile Transaction Replay Service in JDeveloper

You use JDeveloper to integrate the ADF Mobile transaction replay service component with the base ADF Fusion web application, and configure the ADF Mobile client application to use TRS.

3.1 Integrate ADF Mobile Transaction Replay Service with ADF Fusion Web Application

You can integrate ADF Mobile transaction replay service with your ADF Fusion web application to allow the transaction replay service replay entity object events to the base application.

1. In JDeveloper, select your ViewController project in Application Navigator, right-click and choose **Project Properties**.

- **2.** In the Project Properties dialog, select **Technology Scope** to view the list of available technologies.
- **3.** Select the **ADF Mobile Transaction Replay** project technology from the **Available** list, and add it to the **Selected** list, as shown in Figure 8.

Project Properties - D: UDe	veloper\mywork\Application1WiewControllerWiewController.jpr
Search Project Source Paths ADF Mobile Client ADF Model ADF View CARN Note Business Components Compiler Dependencies Deployment EJB Module Extension Javadoc Java EE Application JSP Tigu Libraries JSP Visual Editor Libraries and Classpath Resource Bundle	veloper Unywork Application 1 WiewController ViewController. jpr Technology Scope Use Custom Settings Customize Settings O Use Custom Settings Customize Settings O Use Project Settings Selected: Available: Selected: ADF Business Components ADF Page Flow ADF Library Web Application Support ADF Page Flow ADF Mobile Client Model ADF Mobile Client Model ADF Mobile Client UI SF Java8 JSF JSP for Business Components XML LB Java8 JSP for Business Components XML
JSP Visual Editor Libraries and Classpath	JSP for Business Components

Figure 8 Project Properties dialog

- 4. Click **OK** to close the Project Properties dialog.
- **5.** In your Fusion web application, find and configure the target application module for the mobile replay.
 - **a.** Select the target application module in Application Navigator, right-click and choose **Configurations**.
 - **b.** In the Manage Configurations dialog, click **New** to create a local application module configuration, if one does not already exist.

In the Edit Business Components Configuration dialog, ensure that the data source name matches the JNDI name after deployment. For example, use jdbc/FODDS instead of java:comp/env/jdbc/FODDS, as shown in Figure 9.

🖕 Edit Business Co	mponents Configu	ration 🔀
Business <u>C</u> omponent C	onfiguration Name: 🛛	ppModule
Application Module	Pooling and Scalability	Properties
Middle Tier Server Typ)e	
Local	7	
Connection Type		
JDBC DataSource	Datasource Name:	jdbc/FODDS
Application Module		
Application Module	Name: oracle.fodem	o.storefront.entities.mobile.AppModule
Help		OK Cancel

Figure 9 Edit Business Components Configuration dialog

6. Redeploy the application.

3.2 Creating Transaction Replay Type

You use the Enable TRS for ADF Mobile Client Application wizard to configure the ADF Mobile client application to enable the use of ADF Mobile transaction replay service. Before you proceed, ensure that the ADF Mobile application has entity object definitions from an ADF library file.

- 1. In JDeveloper, select the Model project of your ADF Mobile application. Right-click and choose **Project Properties**.
- 2. In the Project Properties dialog, select ADF Mobile Client.
- **3.** In the ADF Mobile Client page, click **Configure Transaction Replay Service** link to open the Enable TRS for ADF Mobile Client Application wizard.
- **4.** In the TRS Schema page of the wizard, specify the IDE connection. If not created, click the **Add** icon to create a new database connection.

Click Next to continue.

- **5.** In the Replay Type page of the wizard, enter the replay type information, or accept the default values.
 - **Type Name**: Enter a unique name for the replay type.
 - **Application Module Name**: Enter the name of the application module of the base Fusion web application. Ensure that it matches the package name of the Application Module in the base Fusion web application library.
 - **Application Module Configuration Name**: Enter the configuration name of the base Fusion web application module.

- **Type Properties**: Enter additional properties for the replay type using name-value pairs. This will contain the ReplayServletURL—the URL to the replay servlet set up by adding the ADF Mobile Transaction Replay technology to the base application.
- **Password Type**: Select the password type from the dropdown list.
- Credential Store Map Name: If you choose Oracle Credential Store
 Framework as the password type, enter the name of the map.

Click Next to continue.

6. In the Entity Objects page of the wizard, select the entity objects designated for transaction replay service. Note that in most circumstances, you would be using TRS for all entity objects.

Click **Next** to continue.

- **7.** In the Summary page of the wizard, review the information, and click **Finish** to close the wizard.
- 8. Click OK to close the Project Properties dialog.

For more information about enabling transaction replay service, see the "Enabling MTRS for an ADF Application" section in the *Oracle Fusion Middleware Mobile Client Developer's Guide for Oracle Application Development Framework*.

4 Uninstalling ADF Mobile Transaction Replay Service

Uninstall the ADF Mobile transaction replay service to remove its components from the Oracle WebLogic Server.

To uninstall the ADF Mobile Transaction Replay Service Component:

- 1. Open Oracle WebLogic Server Administration Console.
- **2.** In the Deployments page, select the following checkboxes:
 - dispatcher
 - txnreplayer
 - webservice

Figure 10 shows the Deployments page with the **dispatcher** service. Note that the above services might not be available in the same page of Oracle WebLogic Server Administration Console. In such a case, select each file individually and repeat step 3 for each of the above services.

Summary of Deployments Control Monitoring This page displays a list of Java EE applications and stand-alone application modules that have been installed to this domain. Installed applications and modules can be started, stopped, updated (redeployed), or deleted from the domain by first selecting the application name and using the controls on this page To install a new application or module for deployment to targets in this domain, click the Install button. Customize this table Deployments Install Update Delete Start - Stop -Showing 1 to 10 of 28 Previous | Next Deployment Order 📃 Name 🗠 State Health Туре madf.oracle.domain(1.0,11.1.1.2.0) Active Library 100 Adf.oracle.domain.webapp(1.0,11.1.1.2.0) Active Library 100 Enterprise 🗄 📷 dispatcher Active 🖉 ок 100 Application Web Active 🖉 ок 5 Application 🗄 📊 em Enterprise Active 🖉 ок 400 Application emai Active Library 100 emas Active Library 100 emcore Active Library 100 Enterprise 🖉 ок 5 Active Application (11.1.0.0.0) isf(1.2,1.2.9.0) Active Library 100 Install Update Delete Start v Stop v Showing 1 to 10 of 28 Previous | Next

Figure 10 Uninstall ADF Mobile Transaction Replay Service Components

- **3.** Click **Delete** to remove the ADF Mobile transaction replay service files.
- **4.** When you are done, log out from Oracle WebLogic Server Administration Console.

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Oracle Fusion Middleware Installation Guide for ADF Mobile Transaction Replay Service, 11g Release 1 (11.1.1.5.0) E15492-02

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