



Setup
Real-Time Integration
Business Insight 12.2.1.1.0
using a native installation

For AstraTeq Help Desk
Tutorial

Hardware and Software
Engineered to Work Together

ORACLE®

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Overview

This document describes the steps to setup your environment for the Oracle Real-Time Integration Business Insight [AstraTeg Help Desk tutorial](#).

For more information about Oracle Real-Time Integration Business Insight, please visit the [Oracle Real-Time Integration Business Insight product page](#).

Download the tutorial resources

Download **AstraTegHelpDeskTutorial.zip** from the [Insight Tutorials OTN page](#) and extract into a folder of your choice. Let's call this folder **AstraTegHelpDeskTutorialROOT**.

Setup the Insight domain

Install Oracle Real-Time Integration Business Insight natively and configure a compact domain, following the steps in the [Real-Time Integration Business Insight 12.2.1.1.0 Quick Start Guide](#).

Make sure you include the necessary patch and setup of the Insight demo users.

Start the Insight Server

After you finished your installation and domain configuration, start WebLogic Server in your Insight domain.

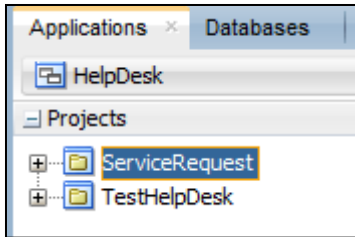
Open SOA composites in JDeveloper

The AstraTeg help desk application consists of two SOA composites and one Service Bus project.

- **ServiceRequest** includes the actual implementation of the help desk application
- **TestHelpDesk** is used to simulate the mobile app used by customers to report their problems

The source code for the projects is included in **AstraTegHelpDeskTutorialROOT/apps/HelpDesk.zip**

- Unzip **HelpDesk.zip**
- Open the SOA application in JDeveloper by selecting **HelpDesk/HelpDesk.jws**
- You will now see both composites in JDeveloper

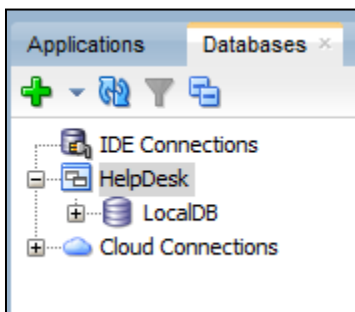


Set up database tables

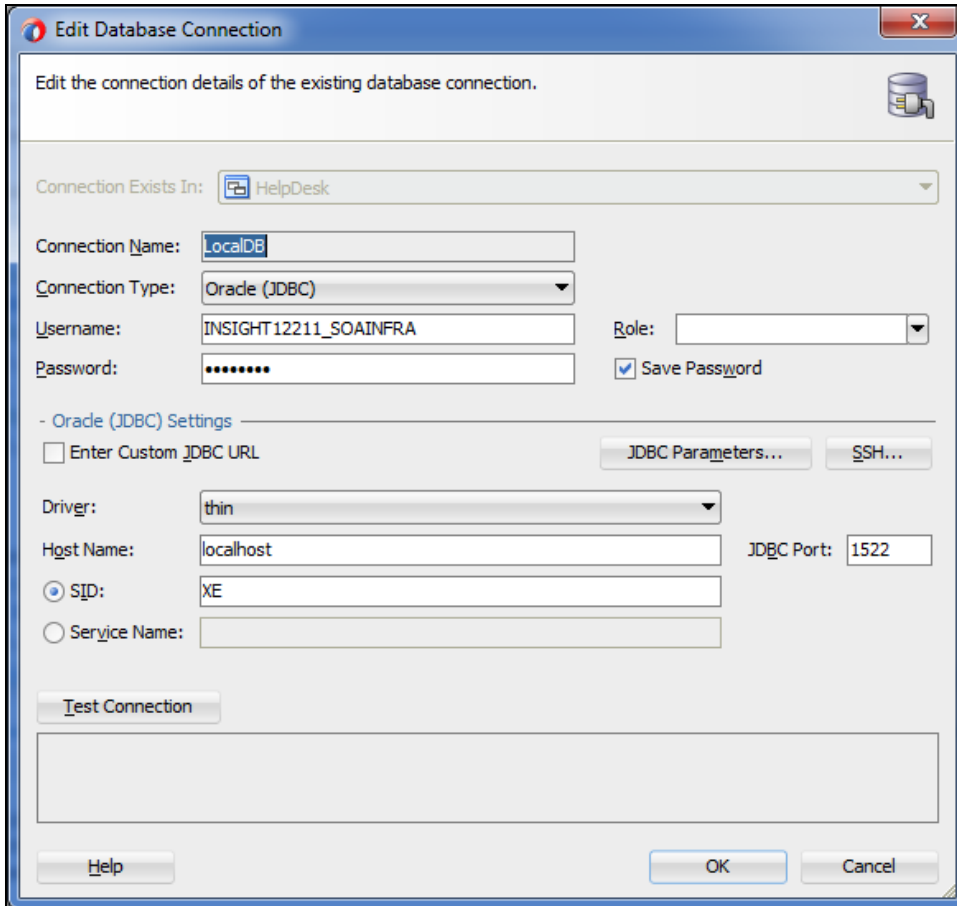
The external services and applications used in this tutorial are simulated through database tables.

Run the script *AstraTeqHelpDeskTutorialROOT/sql/helpdesk.sql* in the SOAINFRA schema, following the steps below:

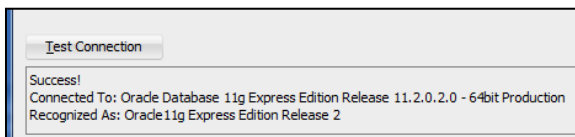
- In JDeveloper, open the **Databases** view by selecting **Window – Database – Databases**
- As you imported the pre-defined composites into JDeveloper, you should see a connection **HelpDesk** with one entry **LocalDB**



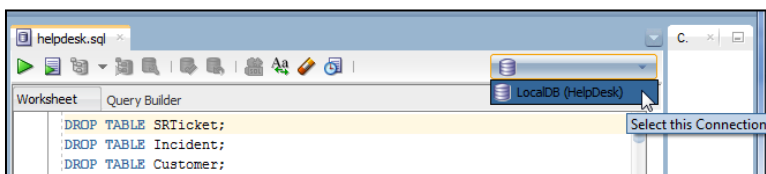
- Right-click on **LocalDB** and select **Properties**
- Change the values according to your DB setup, the values in the screenshot below are just an example.
- The user name is a combination of the prefix you used when setting up RCU and the suffix “**_SOAINFRA**”



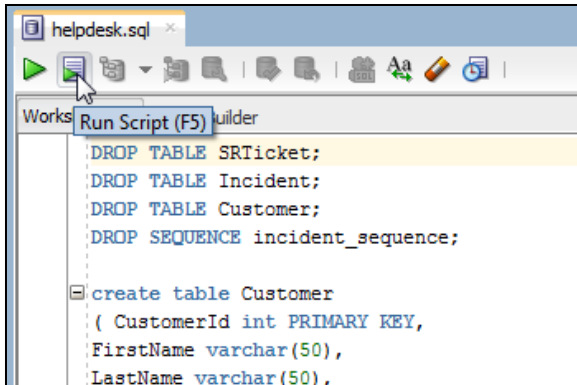
- When finished, click “**Test Connection**”
- If you don’t see a success, revisit the values you entered



- Open **helpdesk.sql** in JDeveloper
- Select **LocalDB (HelpDesk)** on the top right



- Execute the script by selecting the **Run Script** icon



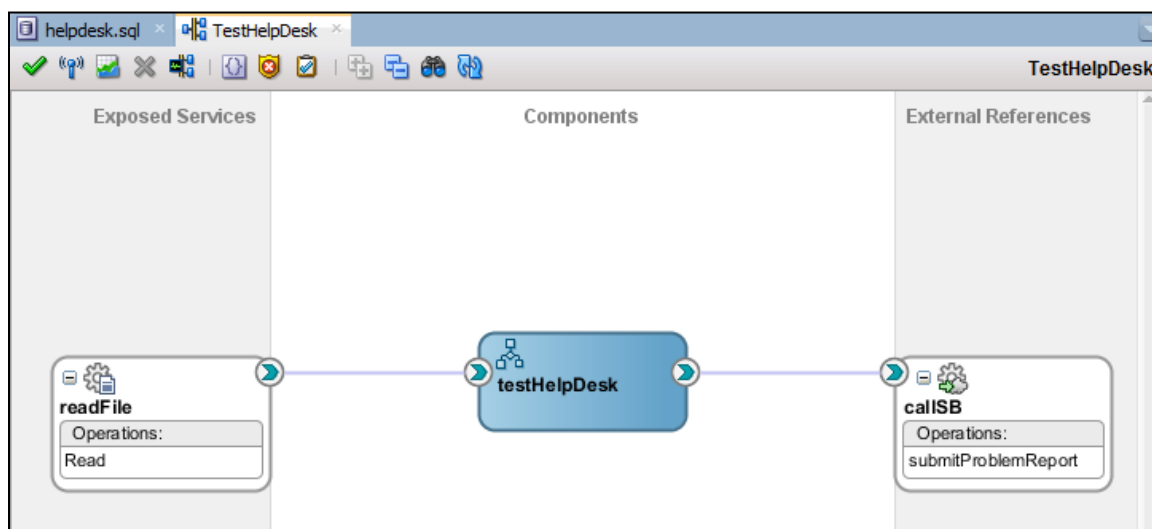
- If you run the script for the first time, you will see errors for the four **Drop** commands
- There should be no further errors
- The last command executed should be “Sequence INCIDENT_SEQUENCE created.”
- You should now be able to see the following tables when opening the connection:
 - CUSTOMER
 - INCIDENT
 - SRTICKET

Create folder for test files

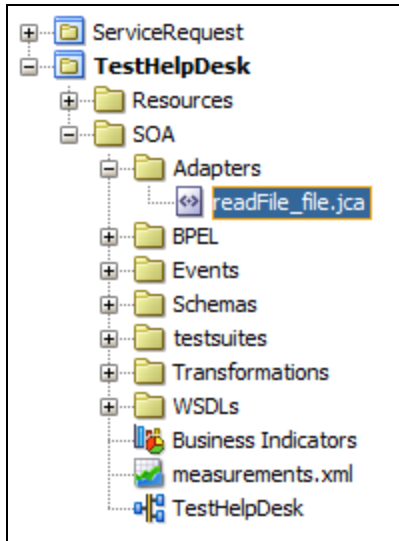
The **TestHelpDesk** composite simulates the mobile app used by customers to report their problems, by reading input files from `/home/oracle/Insight/problem` folder.

Create this folder before deploying the applications to avoid error messages from the file adapter.

The BPEL process **testHelpDesk** translates the input into XML and invokes the Service Bus proxy service **submitProblemReport**.



If you want to use a different location, open **TestHelpDesk – SOA – Adapters – readFile_file.jca**:



The jca file lists the properties for the file adapter:

```

helpdesk.sql  readFile_file.jca
Find
<adapter-config name="readFile" adapter="file" wsdlLocation="../../WSDLs/readFile.wsdl" xmlns="http://pla
  <connection-factory UIincludeWildcard="*.txt" location="eis/FileAdapter"/>
  <endpoint-activation portType="Read_ptt" operation="Read">
  <activation-spec className="oracle.tip.adapter.file.inbound.FileActivationSpec">
    <property name="PhysicalDirectory" value="/home/oracle/Insight/problem" >
    <property name="UseHeaders" value="false" >
    <property name="MaxRaiseSize" value="1"/>
    <property name="MinimumAge" value="0"/>
    <property name="Recursive" value="true"/>
    <property name="SingleThreadModel" value="true"/>
    <property name="PollingFrequency" value="5"/>
    <property name="DeleteFile" value="true"/>
    <property name="IncludeFiles" value=".*\*.txt"/>
  </activation-spec>
</endpoint-activation>
</adapter-config>

```

Change the value of “**PhysicalDirectory**” accordingly and save the file.

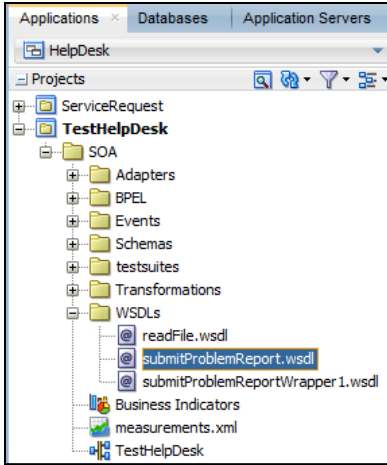
Ensure the folder of your choice is available on the machine where the **server** is running before you deploy the applications in a later step.

Change Service Bus endpoint URL

The invocation of the Service Bus proxy service assumes an endpoint of <http://localhost:7001/helpDesk/submitProblemReport>.

If your host/port is different, you will need to change the endpoint:

- In JDeveloper, open **TestHelpDesk – SOA – WSDLs – submitProblemReport.wsdl**



- Change host and port in the endpoint location:

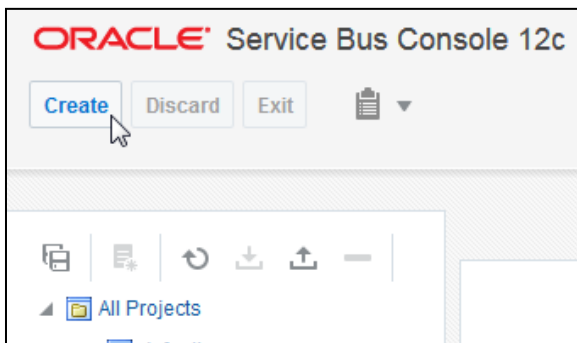
```

</WL5G3N0:output>
</WL5G3N0:operation>
</WL5G3N0:binding>
<WL5G3N0:service name="execute_bindQSService">
  <WL5G3N0:documentation>OSB Service</WL5G3N0:documentation>
  <WL5G3N0:port name="execute_bindQSPort" binding="WL5G3N2:execute_bind">
    <WL5G3N3:address location="http://localhost:7001/helpDesk/submitProblemReport"/>
  </WL5G3N0:port>
</WL5G3N0:service>
</WL5G3N0:definitions>

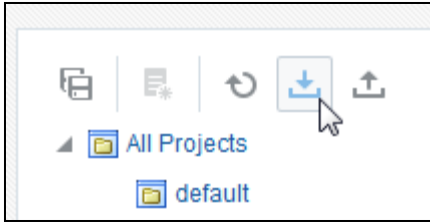
```

Import Service Bus project

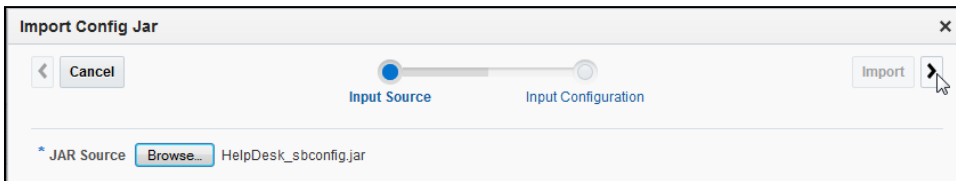
- With the server running, open the Service Bus console using the following URL: <http://<hostname>:<port>/servicebus/>, e.g. <http://localhost:7001/servicebus/>
- Log in with your admin user, e.g. **weblogic/welcome1**
- Create a new session



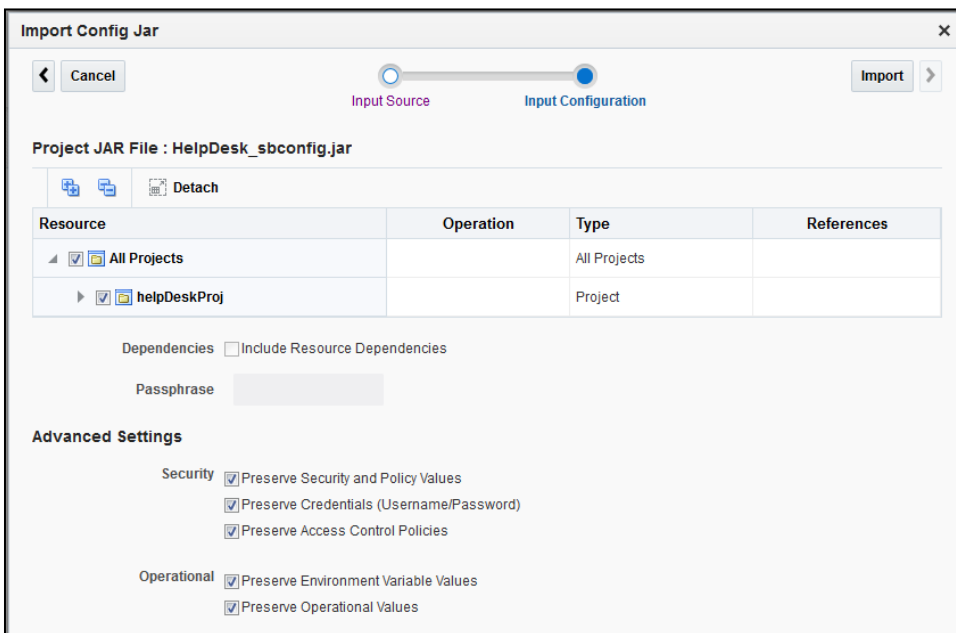
- Select the **Import Config Jar** icon



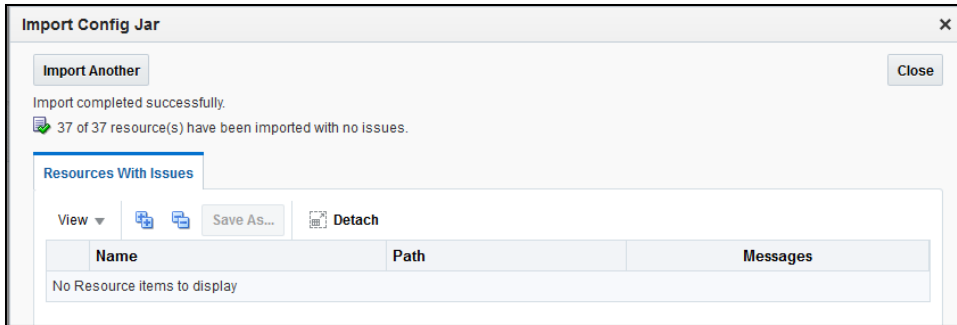
- Browse to **AstraTeqHelpDeskTutorialROOT/apps** and select **HelpDesk_sbconfig.jar**
- Select **Open**
- Click the **Next** icon



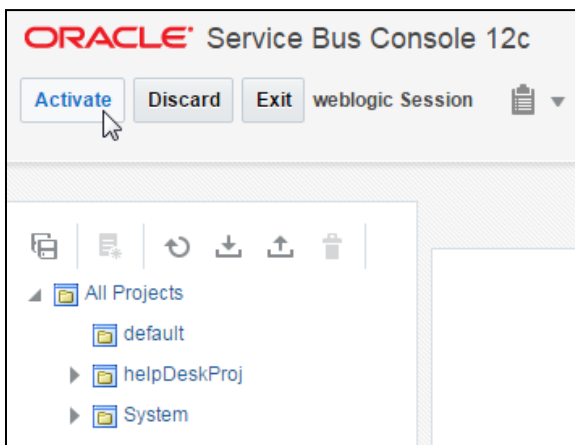
- You will see all resources included in this config jar file



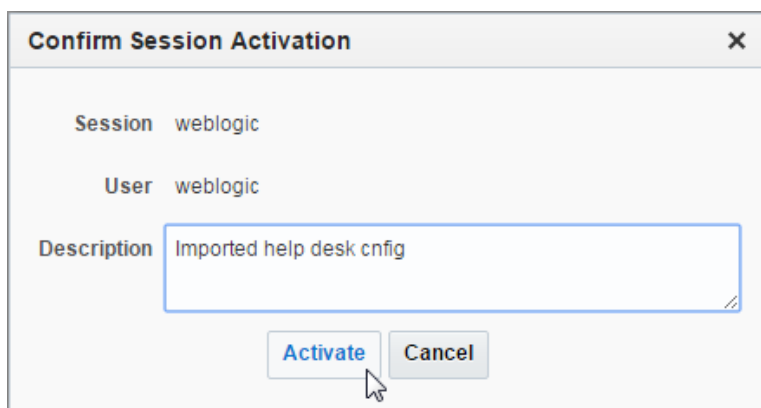
- Select **Import**
- You should see **“Import completed successfully”**

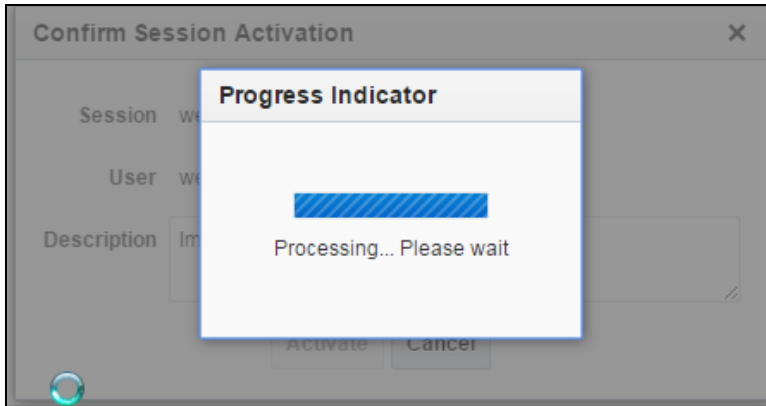


- Select **Close**
- You will now see the new project in the list
- **Activate** the session

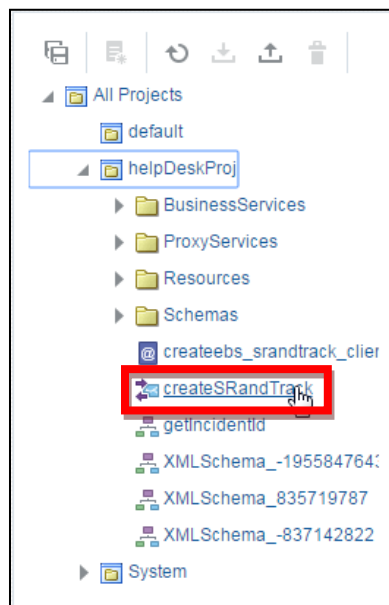


- Enter a description and click **Activate**

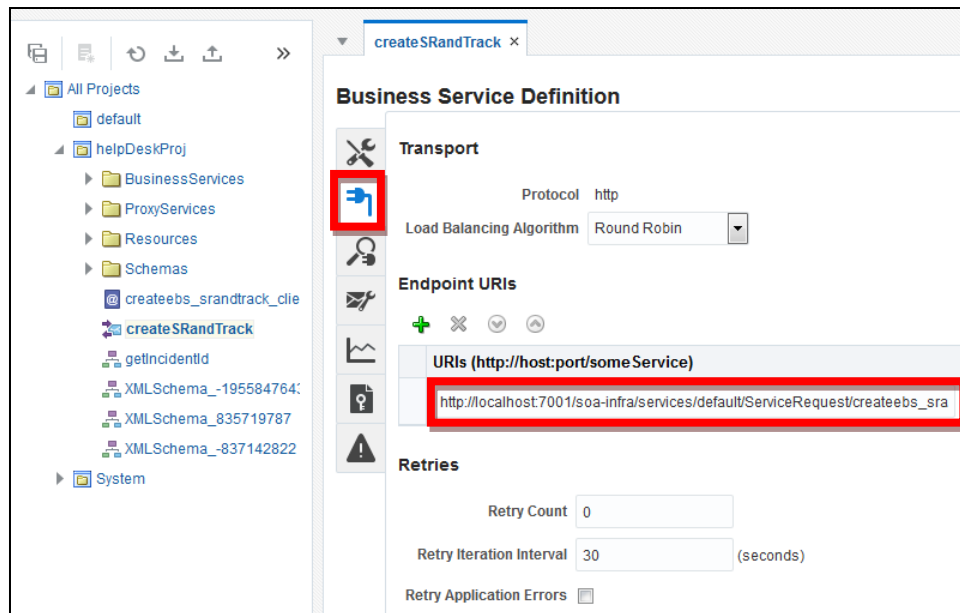




- The business service **createSRandTrack** invokes the SOA composite ServiceRequest. The endpoint URL is defined as http://localhost:7001/soa-infra/services/default/ServiceRequest/createebs_srandtrack_client_ep.
- If your environment has been setup differently, change the URL accordingly:
 - **Create** a new session
 - Select the **createSRandTrack** business service in the Service Bus console



- You will see the configuration of the service on the right hand side
- Open the **Transport** configuration by selecting the second tab from top, (see the screenshot below)



- Change the URL accordingly
- **Save** the change

- Select **Activate** to commit the session
- Enter a description of your choice and hit **Activate** again

Deploy SOA composites

Deploy the SOA composites

You can deploy the composites either in **Enterprise Manager Fusion Middleware Control** by selecting the jar files **sca_ServiceRequest_rev1.0.jar** and **sca_TestHelpDesk_rev1.0.jar** in **AstraTeqHelpDeskTutorialROOT/apps**, or you can deploy them from JDeveloper. The latter is recommended if you made any changes to the projects.

The following sections describe both approaches.

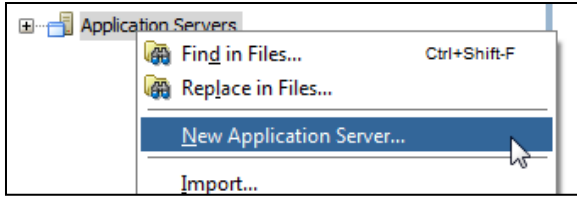
Deploy from JDeveloper

Set up a new application server connection in JDeveloper

- In JDeveloper, open the **Application Servers** window by selecting **Window – Application Servers**



- Right-click **Application Servers** and select **New Application Server...**



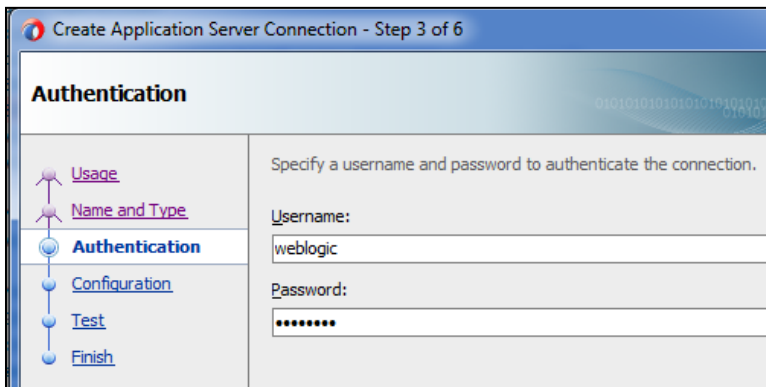
- Select **Standalone Server**



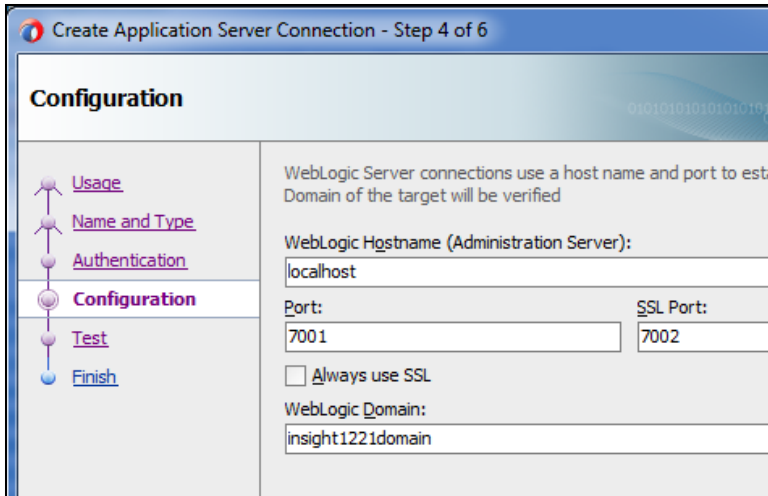
- Click **Next**
- Choose a name for the connection, e.g. **MyAppServer**



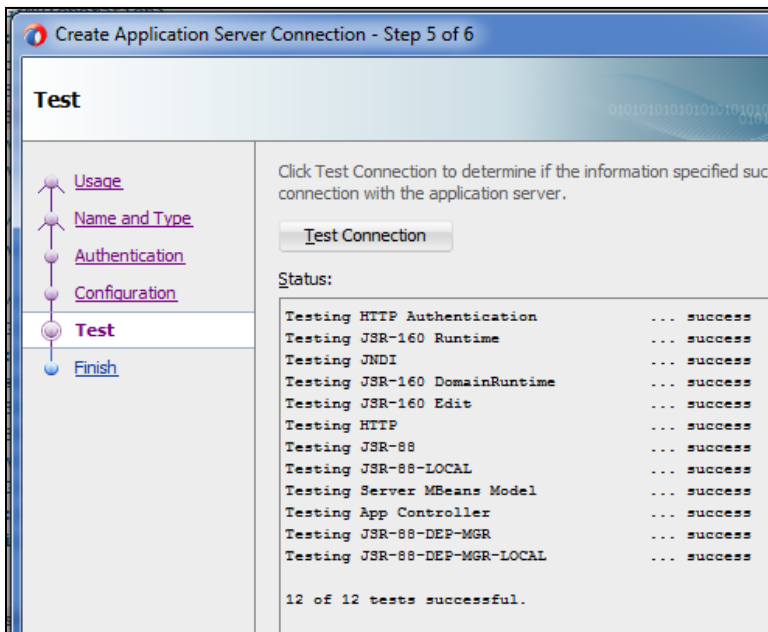
- Click **Next**
- Enter the name and password for your admin user



- Click **Next**
- Enter the details for your domain (your details may be different than what you see in the screenshot below)



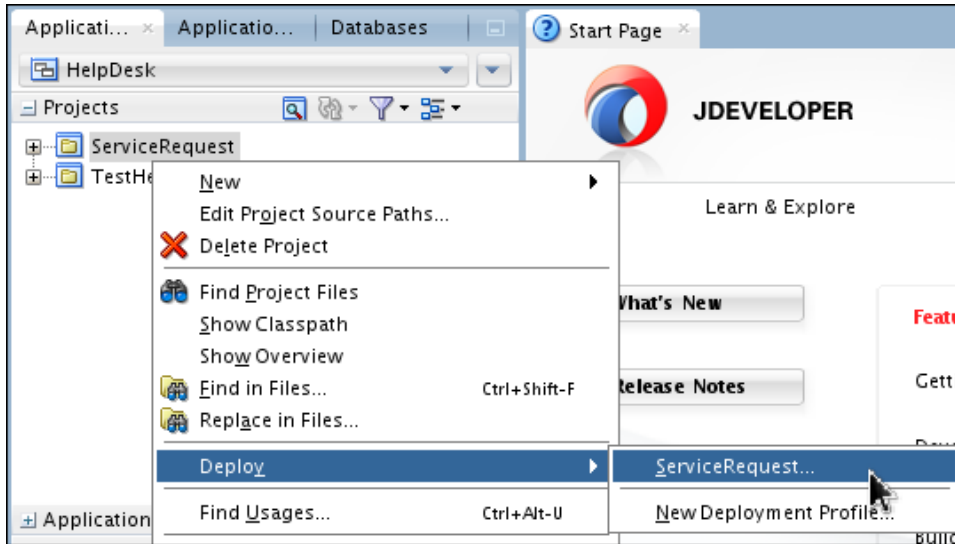
- Click **Next**
- Click **Test Connection**
- You should see something like the below. If not all of the tests have been successful, ensure your server is running and revisit the values you entered on the previous screen.



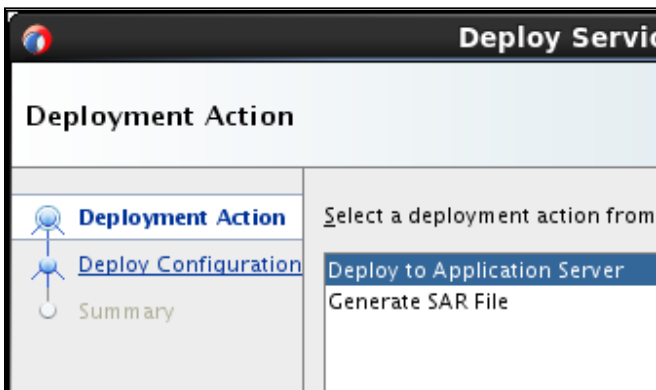
- Click **Next** for a summary
- Click **Finish**

Deploy the composites

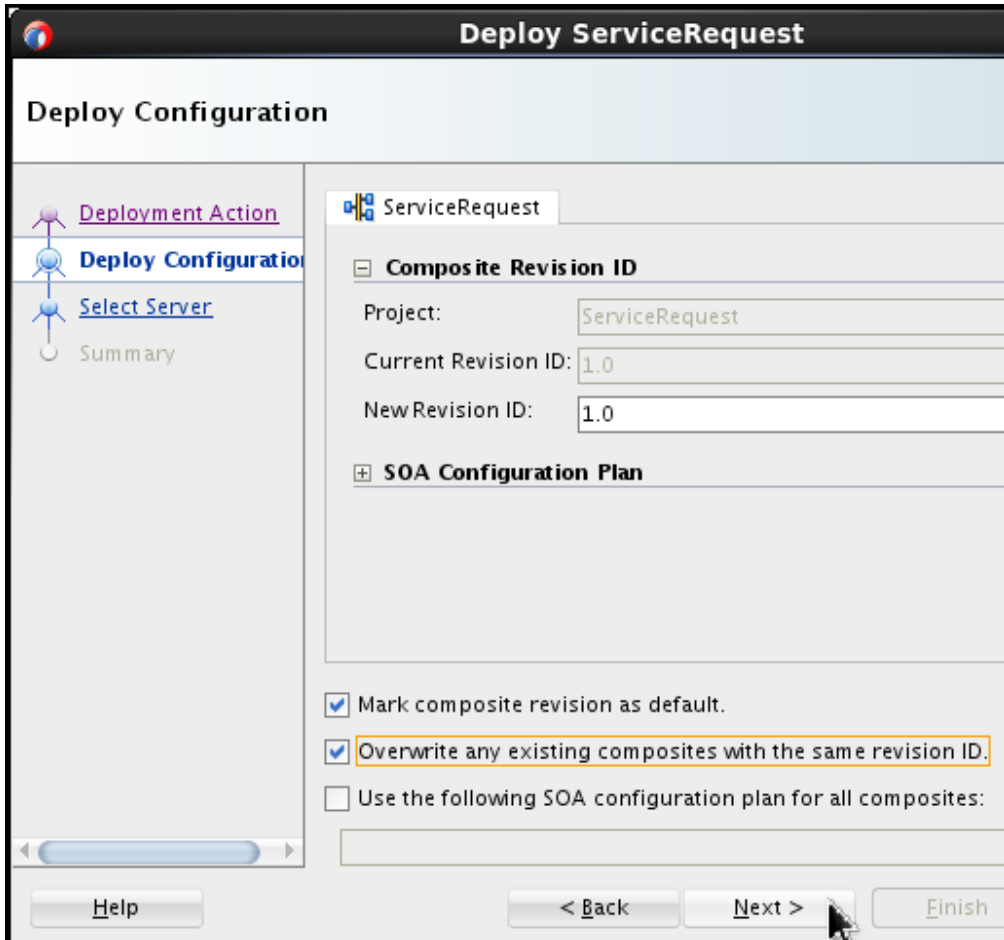
- In JDeveloper, open the **Applications** window
- Right-click **ServiceRequest** and select **Deploy - ServiceRequest**



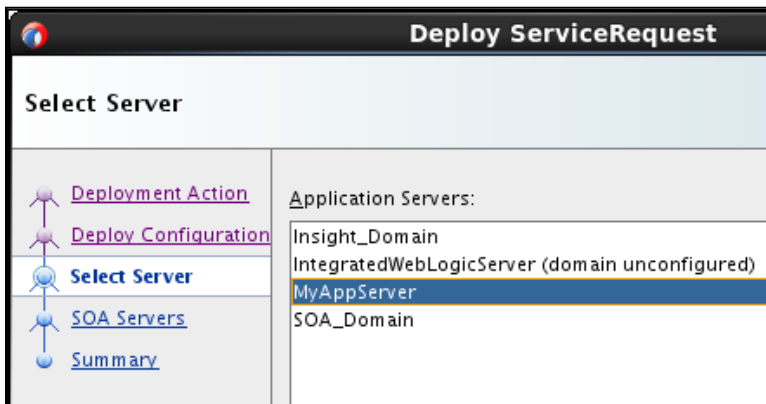
- Select **Deploy to Application Server**



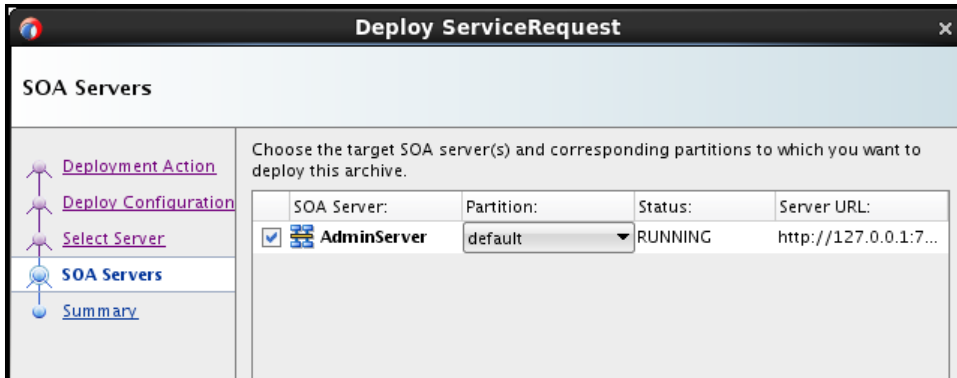
- Click **Next**
- Keep all defaults and check **Overwrite any existing composites with the same revision ID**



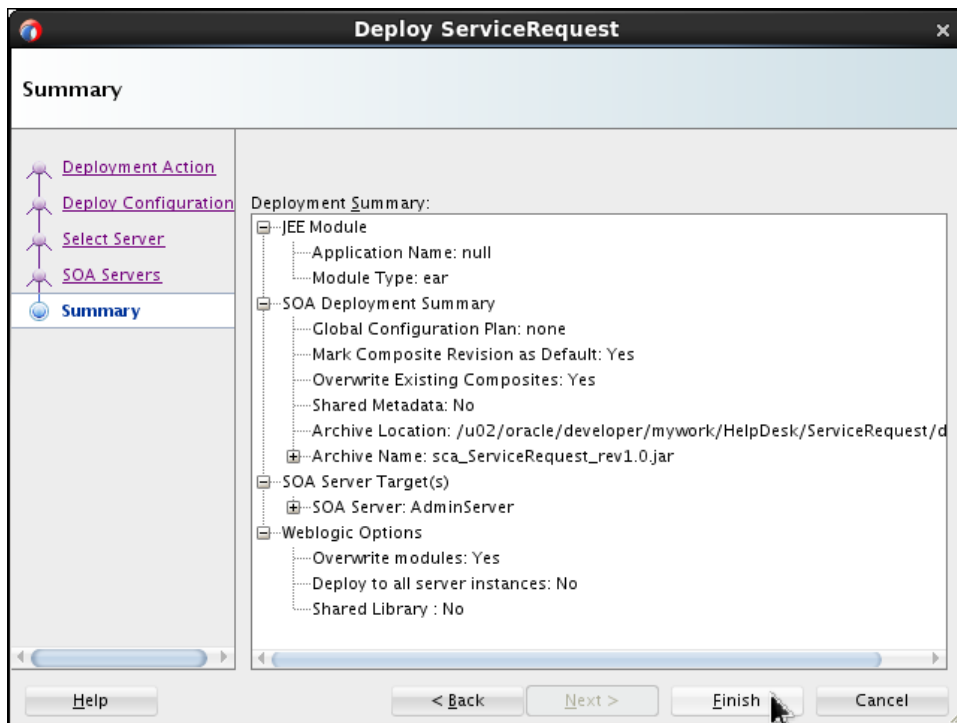
- Click **Next**
- Select the application server connection you just set up



- Click **Next**
- Click **Next**
- Inspect the deployment summary



- Click **Next**

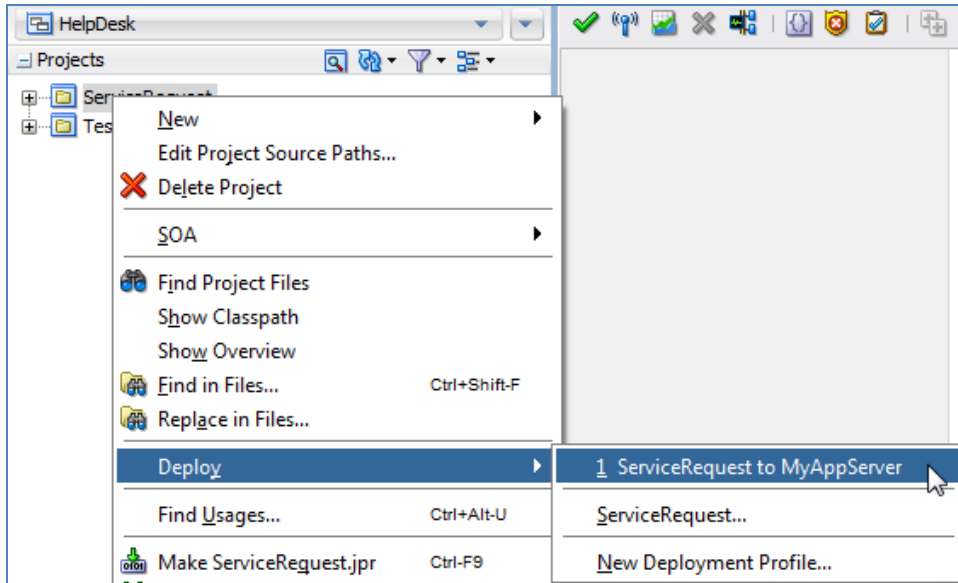


- Click **Finish**

Deployment is successful if you see the following message in the **Deployment** tab:

```
[11:15:50 PM] Preparing to send HTTP request for deployment
[11:15:50 PM] Creating HTTP connection to host:127.0.0.1, port:7001
[11:15:50 PM] Sending internal deployment descriptor
[11:15:50 PM] Sending archive - sca_ServiceRequest_rev1.0.jar
[11:16:01 PM] Received HTTP response from the server, response code=200
[11:16:01 PM] Successfully deployed archive sca_ServiceRequest_rev1.0.jar with 0 warning/severe messages to partit
[11:16:01 PM] Elapsed time for deployment: 24 seconds
[11:16:01 PM] ---- Deployment finished. ----
```

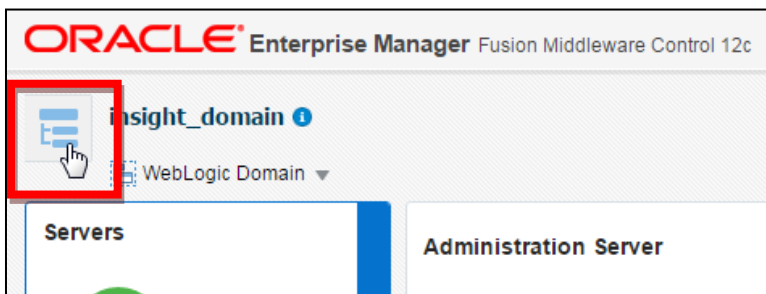
For future re-deployments, you can just select **Deploy – ServiceRequest to MyAppServer**.



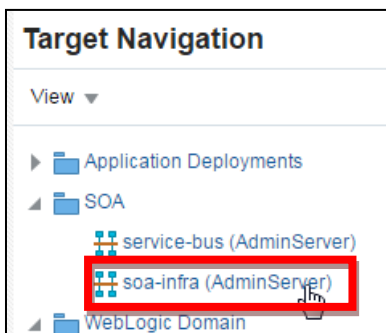
Follow the same steps to deploy the **TestHelpDesk** composite.

Deploy from Enterprise Manager Fusion Middleware Control

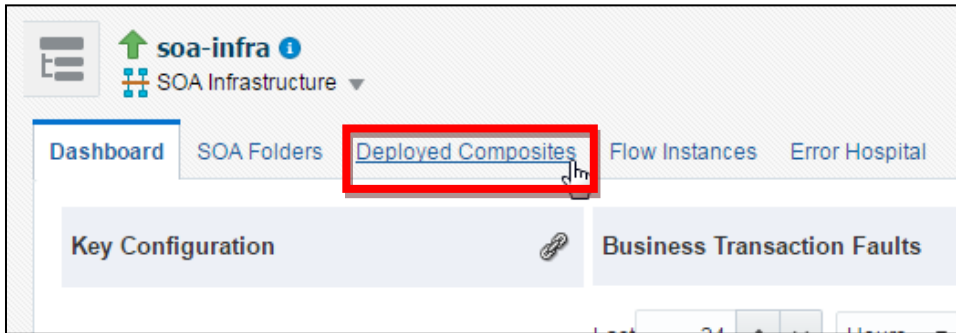
- Open **Enterprise Manager Fusion Middleware Control** using <http://<hostname>:<port>/em>, e.g. <http://localhost:7001/em>
- Log in with your admin user
- Click on **Target Navigation** on top left



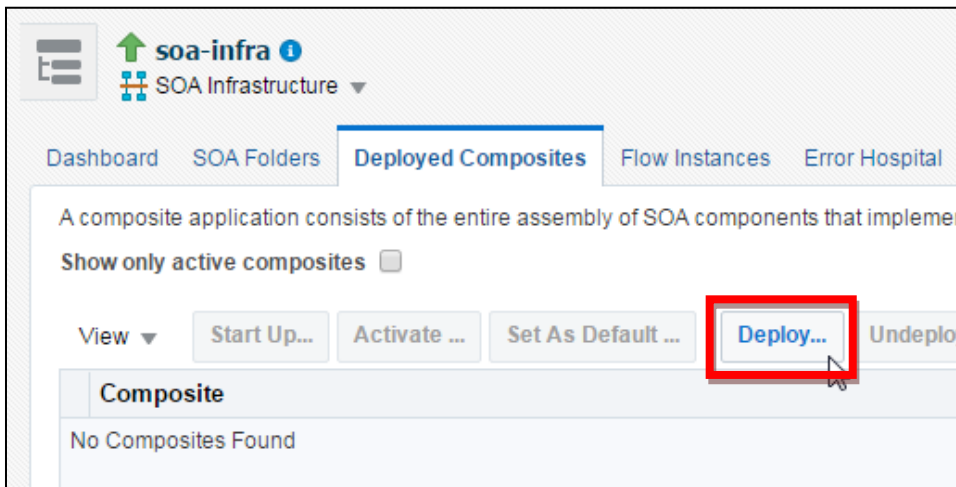
- Expand **SOA**, then click **soa-infra (AdminServer)**



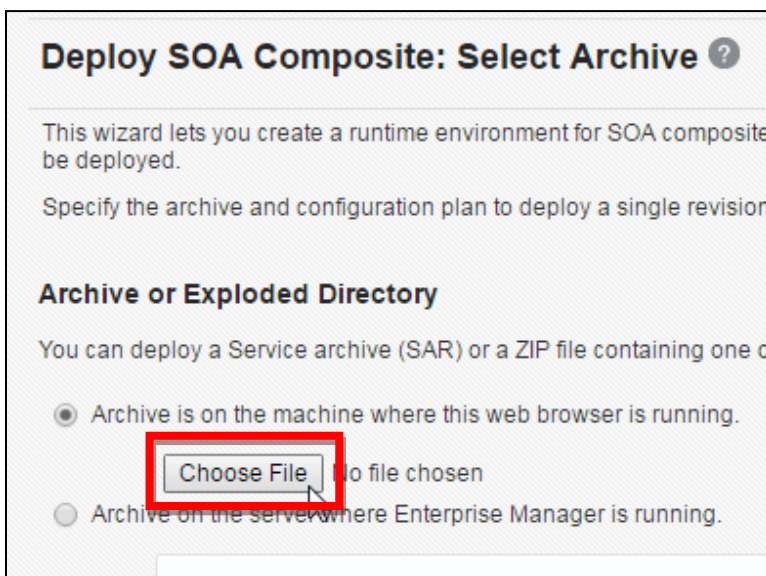
- Click the **Deployed Composites** tab.



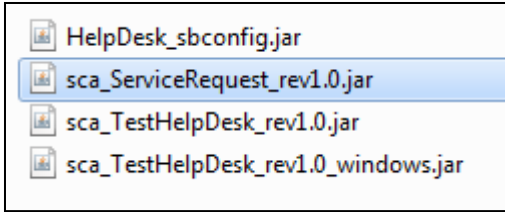
- Click **Deploy**



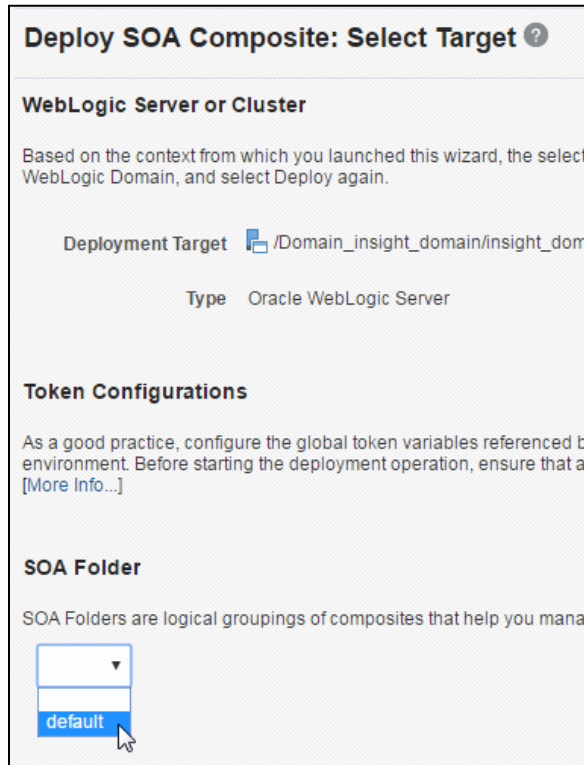
- Select **Choose File**



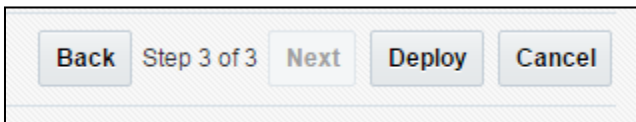
- Browse to **AstraTeqHelpDeskTutorialROOT/apps/sca_ServiceRequest_rev1.0.jar**

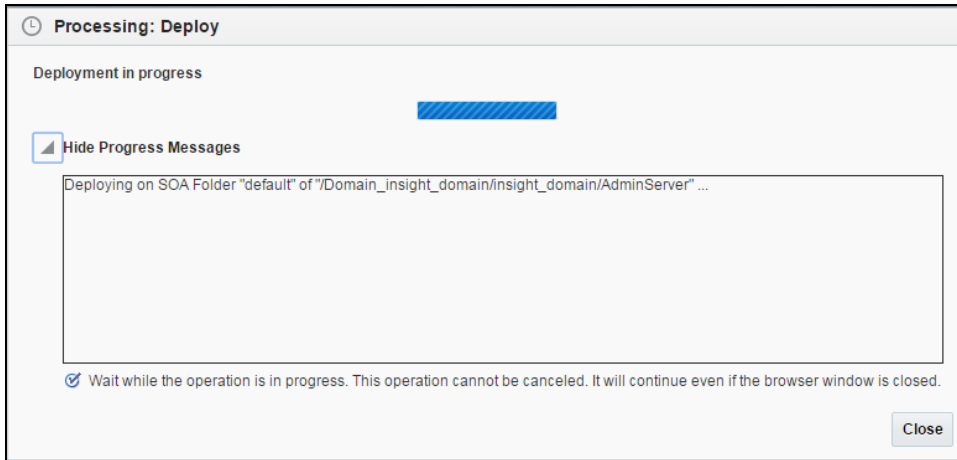


- Select **Next**
- Under **SOA Folder**, select **default**



- Click **Next**
- Click **Deploy**

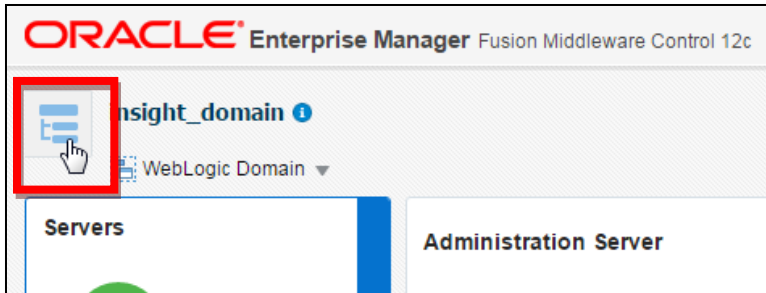




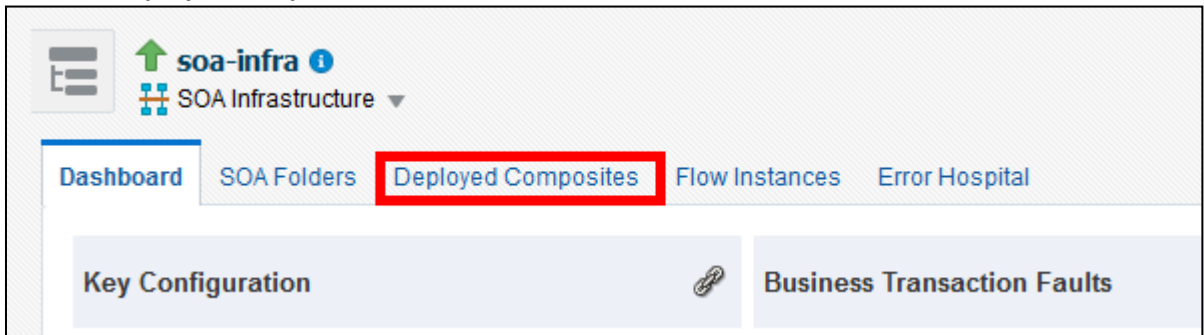
- Deployment is successful if you see a message like the below



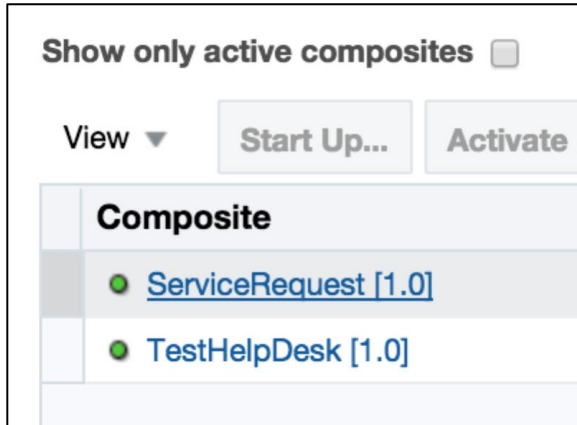
- Click **Close**
- Repeat the steps for the **TestHelpDesk** application
- **sca_TestHelpDesk_rev1.0.jar** defines the input folder as **/home/oracle/Insight/problem**, **sca_TestHelpDesk_rev1.0_windows.jar** as **D:\problems**



- Expand **SOA**, then click **soa-infra (AdminServer)**
- Click the **Deployed Composites** tab.



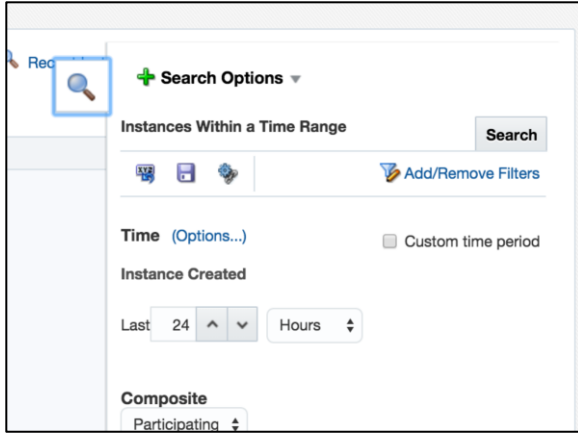
- Click on **ServiceRequest [1.0]**



- Click on **Flow Instances**



- Click on the **Search** button on the right



- You should as many instances as the number of tests you ran

Flow ID	Initiating Composite	Flow State	Created	Last Updated
2	TestHelpDesk [1.0]	✔ Completed	Jun 30, 2016 3:16:06 PM	Jun 30, 2016 3:16:08 PM
1	TestHelpDesk [1.0]	✔ Completed	Jun 30, 2016 2:41:05 PM	Jun 30, 2016 2:41:11 PM

- Click on the **Flow ID** of one of the instances to bring up the **Flow Trace**

Activity	Adapter	Service	State	Created	Parent
readFile	JCA Adapter	Service	✔ Completed	Jun 30, 2016 3:16:06 PM	TestHelpDesk [1.0]
testHelpDesk	BPEL		✔ Completed	Jun 30, 2016 3:16:06 PM	TestHelpDesk [1.0]
callSB	Web Service	Reference	✔ Completed	Jun 30, 2016 3:16:06 PM	TestHelpDesk [1.0]
ServiceBus	ServiceBus			Jun 30, 2016 3:16:07 PM	
createebs_srandtrack_client	Web Service	Service	✔ Completed	Jun 30, 2016 3:16:07 PM	ServiceRequest[1.0]
createEBS_SRAndTrack	BPEL		✔ Completed	Jun 30, 2016 3:16:07 PM	ServiceRequest[1.0]
getCustomerInfo	JCA Adapter	Reference	✔ Completed	Jun 30, 2016 3:16:07 PM	ServiceRequest[1.0]
createSRInEBS	JCA Adapter	Reference	✔ Completed	Jun 30, 2016 3:16:07 PM	ServiceRequest[1.0]
escalateSR	JCA Adapter	Reference	✔ Completed	Jun 30, 2016 3:16:07 PM	ServiceRequest[1.0]
diagnosisService	BPEL		✔ Completed	Jun 30, 2016 3:16:07 PM	ServiceRequest[1.0]
resolutionService	BPEL		✔ Completed	Jun 30, 2016 3:16:07 PM	ServiceRequest[1.0]

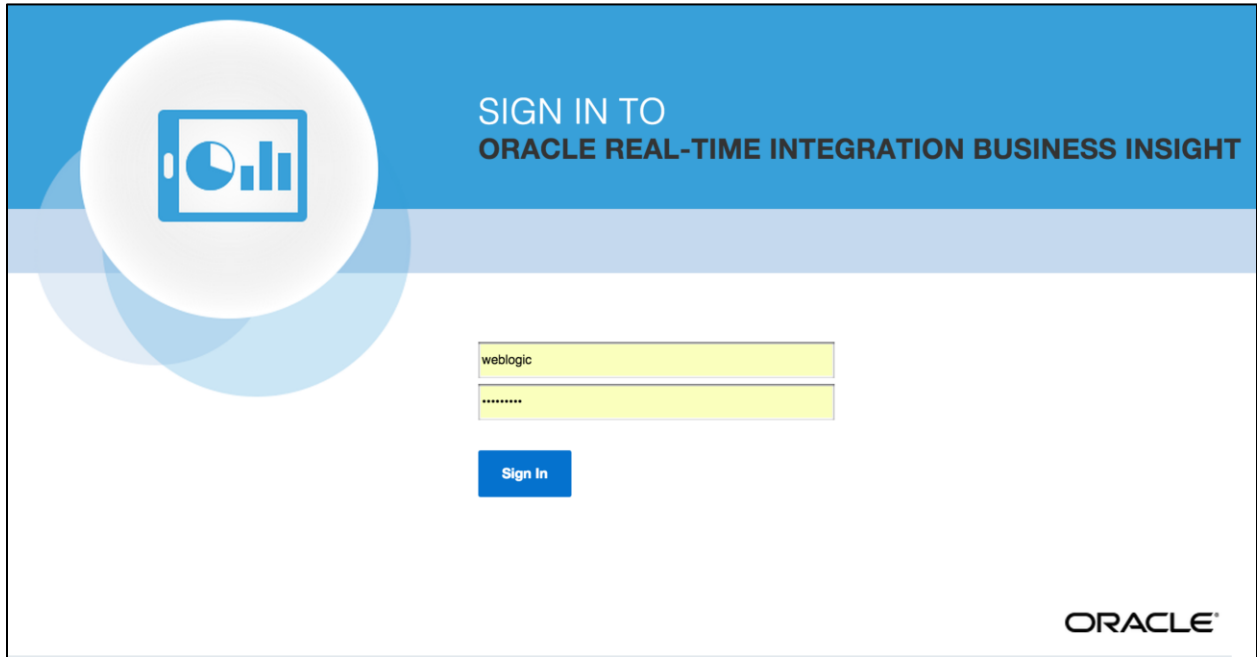
- It should look similar as the above
- The last BPEL process will give you a clue whether the service request has been **resolved**, **suspended** or **rejected**.

- The composite has been implemented in a way that service requests assigned to a specific support engineer are stuck after they have been assigned to make the demo richer. Those instances will show in **aborted** state. That is expected and nothing to worry about.

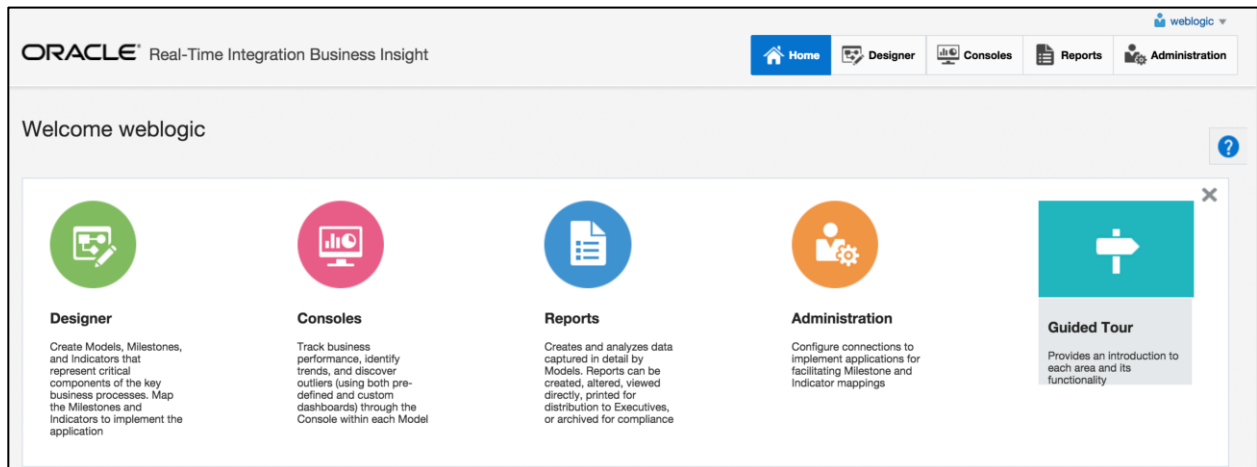
Access Insight

After completing the setup and with your server started, access Insight through a browser by using the following URL: <http://<hostname>:<port>/insight>, e.g. <http://localhost:7001/insight/>.

When you setup your Insight environment, you set up a number of different user personas, i.e. **Business User** and **Integration Architect**, and the tutorial will explain which user to sign in as for the different tasks. To ensure you can access Insight and everything is working as expected, use your admin user, e.g. weblogic:



Once signed in, you should see the following in your browser:



You are now ready to start the [AstraTeq Help Desk tutorial!](#)