



# **Configuring Lombardi Teamworks with Avaya Communications Process Manager to Provide a Solution for Avaya Communications Enabled Business Processes - Issue 1.0**

## **Abstract**

These Application Notes describe the procedures for configuring Lombardi Teamworks with Avaya Communications Process Manager (CPM) to provide a solution for Avaya Communications Enabled Business Processes (CEBP). For these Application Notes, a sample Avaya CEBP solution for processing fraudulent credit card transactions is presented.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

# 1. Introduction

These Application Notes describe the procedures for configuring Lombardi Teamworks with Avaya Communications Process Manager (CPM) to provide a solution for Avaya Communications Enabled Business Processes (CEBP). For these Application Notes, a sample Avaya CEBP solution for processing fraudulent credit card transactions is presented.

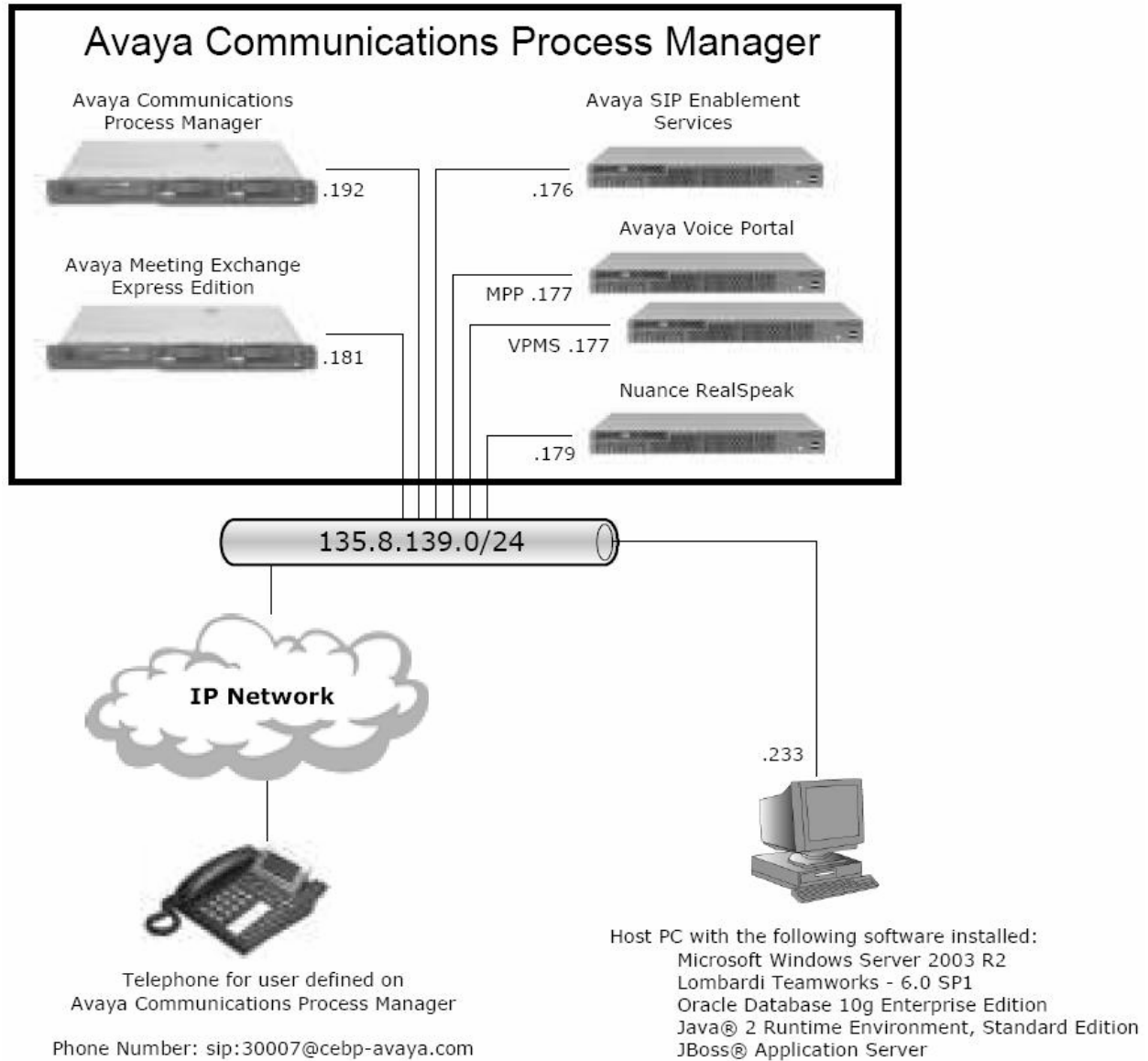
**Figure 1** illustrates the sample configuration utilized for these Application Notes.

Lombardi Teamworks is a Business Process Management (BPM) system that, when used in conjunction with Avaya CPM, provides continuous closed-loop communications for Avaya CEBP. Lombardi Teamworks manages the overall process, tasks, etc. and utilizes Avaya CPM for continuous closed-loop communications. Lombardi Teamworks was installed [4] on a PC with the Microsoft Windows Server 2003 R2 operating system (Host or Local PC). Additionally, the Host PC also had the following installed:

- Oracle Database 10g Enterprise Edition
- Java® 2 Runtime Environment, Standard Edition
- JBoss® Application Server

Avaya CPM is a Service-Oriented Architecture (SOA) based platform that exposes web services to enable continuous, closed-loop communications. All Avaya CEBP communications are continuous and “closed loop”, e.g., information about actions taken by users can be communicated back to the originating system that triggers an event, affecting the business process in real-time. Once an action is set in motion, Avaya CEBP helps assure that the business process keeps moving toward resolution. Refer to [1] and [2] for required/optional hardware/software components regarding Avaya CPM deployments.

For this sample configuration, Avaya CPM was comprised of a server hosting the Avaya CPM software application, Avaya SIP Enablement Services, Avaya Meeting Exchange Express Edition (Meeting Exchange), Avaya Voice Portal and Nuance RealSpeak. The Avaya Voice Portal VPMS and MPP components were configured on one physical server. Avaya CPM provided notification for fraudulent credit card transactions to users, where a user has an account defined on Avaya CPM.



**Figure 1: Sample Configuration**

## 2. Equipment and Software Validated

The following equipment and software versions were used for this sample configuration:

Equipment	Software Version
Host PC - Microsoft Windows Server 2003 R2 <ul style="list-style-type: none"><li>Lombardi Teamworks - 6.0 SP1</li><li>Oracle Database 10g Enterprise Edition</li><li>Java® 2 Runtime Environment, Standard Edition</li><li>JBoss® Application Server</li></ul>	6.0.1 10.2.0.1.0 build 1.5.0_14-b03 4.0.5
Avaya Communications Process Manager - 2.1 <ul style="list-style-type: none"><li>Avaya Communications Process Manager</li><li>Avaya SIP Enablement Services</li><li>Avaya Meeting Exchange Express Edition</li><li>Avaya Voice Portal</li><li>Nuance RealSpeak</li></ul>	cpm 2.1.53 4.0-04.0.033.6 2.5.60.0 4.0.0.0.2901 4.0.10

**Table 1: Equipment and Software Versions**

## 3. Avaya Communications Process Manager Configuration

This section describes the configuration utilized by Avaya CPM to interoperate with Lombardi Teamworks. For this sample configuration, it is assumed that Avaya CPM is provisioned to communicate with Avaya communication resources, e.g., Avaya Voice Portal, Avaya Meeting Exchange and Avaya SIP Enablement Services. Refer to [1] and [2] for additional information regarding the administration of Avaya CPM. Avaya CPM has two user interfaces:

- Web Portal - A web-based thin client that lets users manage their account, e.g., provision contact rules so their notifications are based on their preferences and availability. For this sample configuration, the Web Portal interface was used to invoke web services [2] to both users and transient users. The Web Portal is accessed over a secure connection by entering **https://<Avaya CPM IP Address or Fully Qualified Domain Name (FQDN)>** into a web browser's Uniform Resource Locator (URL) bar.
- Operations Administration and Maintenance (OAM) - A web-based thin client user interface that lets a system administrator configure Avaya CPM with connectivity to Avaya communication resources. The OAM interface also provides access to system status, statistics, licenses, security certificates, logs, and alarms. For this sample configuration, the OAM interface was used to provision Avaya CPM for dial-in services. The OAM interface is accessed over a secure connection by entering **https://<Avaya CPM IP Address or FQDN>/admin** into a web browser's URL bar.

***Note:** Some features described in these Application Notes require licensing. If a required feature is not enabled or there is insufficient capacity, contact an authorized Avaya account representative to make the appropriate changes.*



### 3.1. Verify Avaya Communications Process Manager

This section describes the steps for verifying a user account that has been provisioned on Avaya CPM. It is assumed this account is operational and has an associated telephone configured.

Step	Description
3.1.1	<p>From the Avaya CPM OAM interface, open a user account as follows:</p> <ul style="list-style-type: none"><li>• Click <b>Account</b> ➔ <b>Account Information</b>.</li><li>• From the <b>Account Information</b> page, Note the <b>Handle</b> and <b>User Password</b> [<i>Not Shown, 30007</i>] fields respectively. This user should also have a <b>Phone Number</b> provisioned.</li></ul>

The screenshot displays the 'Account Information' page in the Avaya Communications Process Manager interface. The page is divided into a left sidebar with navigation links (Inbox, Outbox, Account, Administration, Help, Logout) and a main content area. The main content area is titled 'Account Information' and contains a list of fields for user information. The fields are organized into sections: Roles, Attributes, and Applications. The 'User Password' field is highlighted with a red box. The 'Handle' field is highlighted with a red box and contains the value 'Jenny'. The 'ID Number' field is highlighted with a red box and contains the value '30007'. The 'Phone Number' field is highlighted with a red box and contains the value 'sip:30007@cebp-avaya.com'. The 'Applications' section contains several fields with 'Yes' values: 'Advisory Service', 'Click To Find Service', 'Notification And Response Service', and 'Notify And Conference Service'. The page footer shows the user name 'Jenny' and the version 'CPM v2.1'.

## 4. Lombardi Teamworks Configuration

This section describes the configuration for enabling Lombardi Teamworks to interoperate with Avaya CPM. The configuration in this section assumes that Lombardi Teamworks is installed and has network connectivity with Avaya CPM. Refer to **Appendix B** for information regarding installation requirements for Lombardi Teamworks. Refer to [4] for information regarding the administration of Lombardi Teamworks.

### 4.1. Install Avaya Specific System Components

This section describes the steps for installing Avaya specific system components via graphical user interface provided in the Authoring Environment. These components will enable processes for processing fraudulent credit card transactions.

Step	Description
4.1.1	Repeat the steps in <b>Appendix B3</b> to install Avaya specific system components. Contact an authorized Avaya account representative to obtain the Avaya settings file.

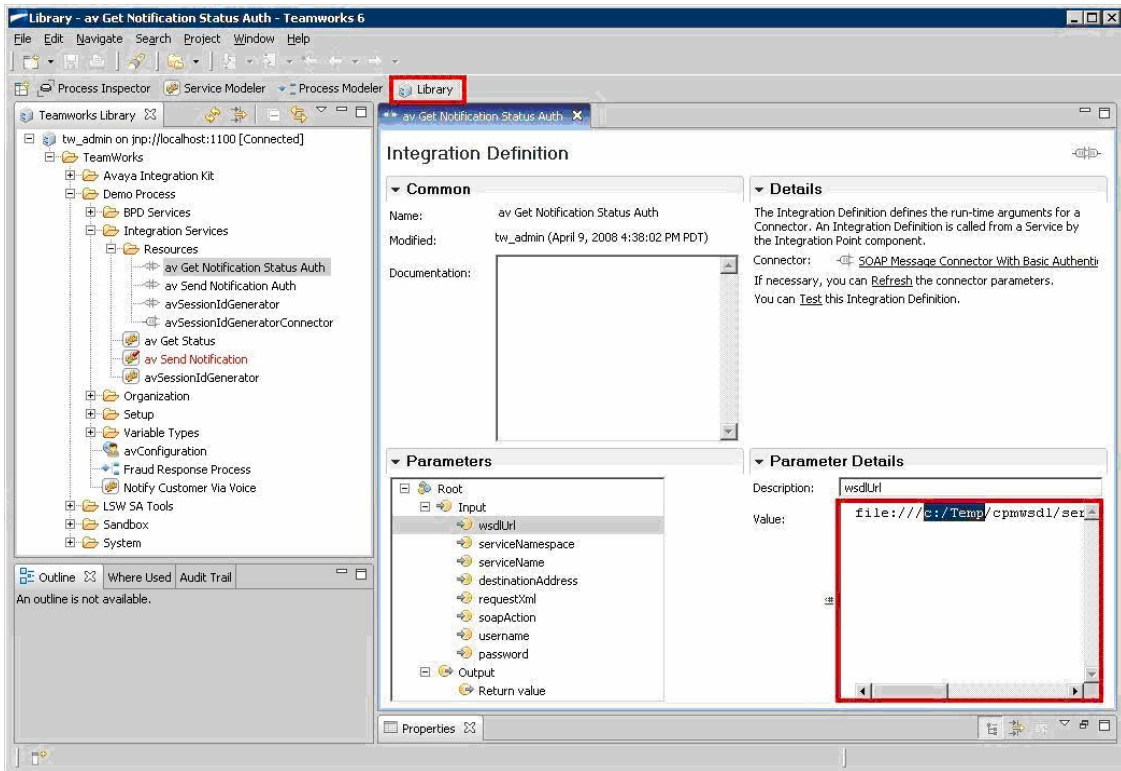
## 4.2. Web Services Description Language and XML Schema

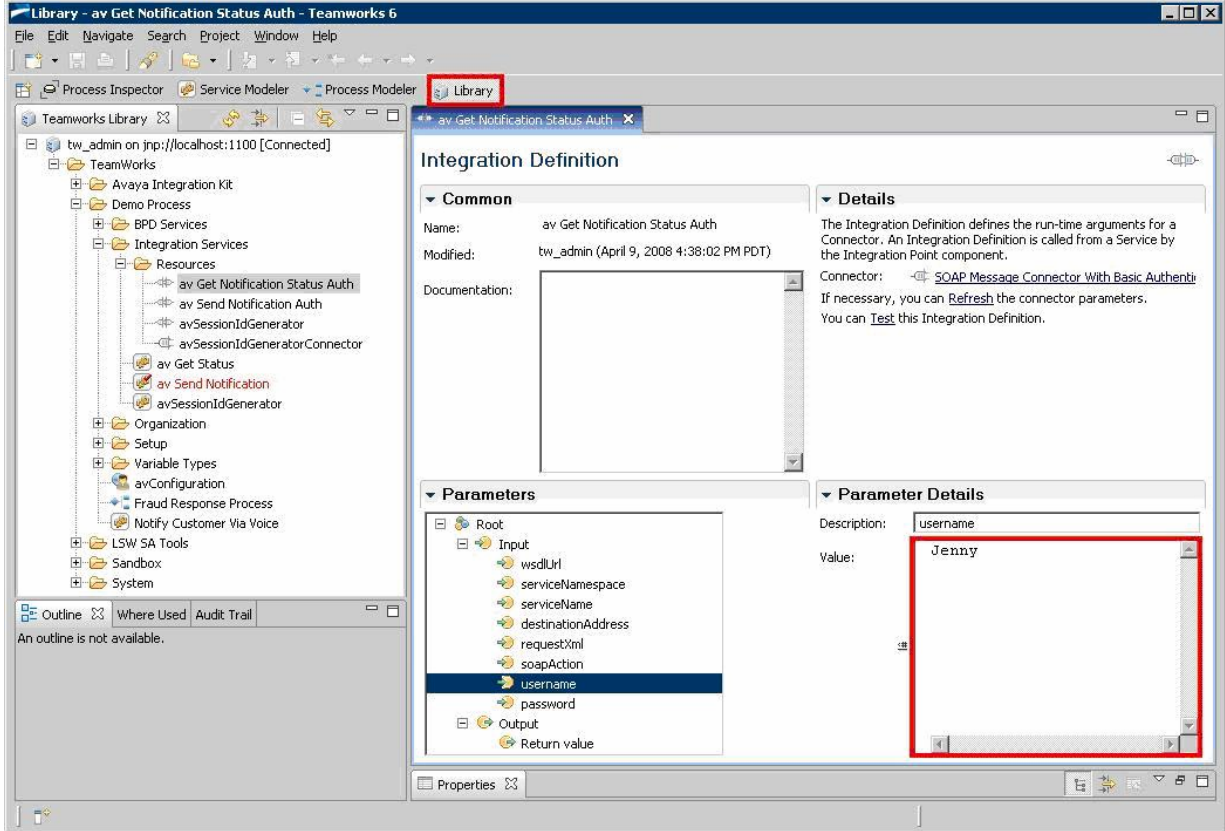
This section describes the steps to account for the directory where the Web Services Description Language (WSDL) and XML schema files are located on the Host PC. These files are utilized by the Avaya Specific Components installed in **Section 4.1**. Contact an authorized Avaya account representative to obtain these files.

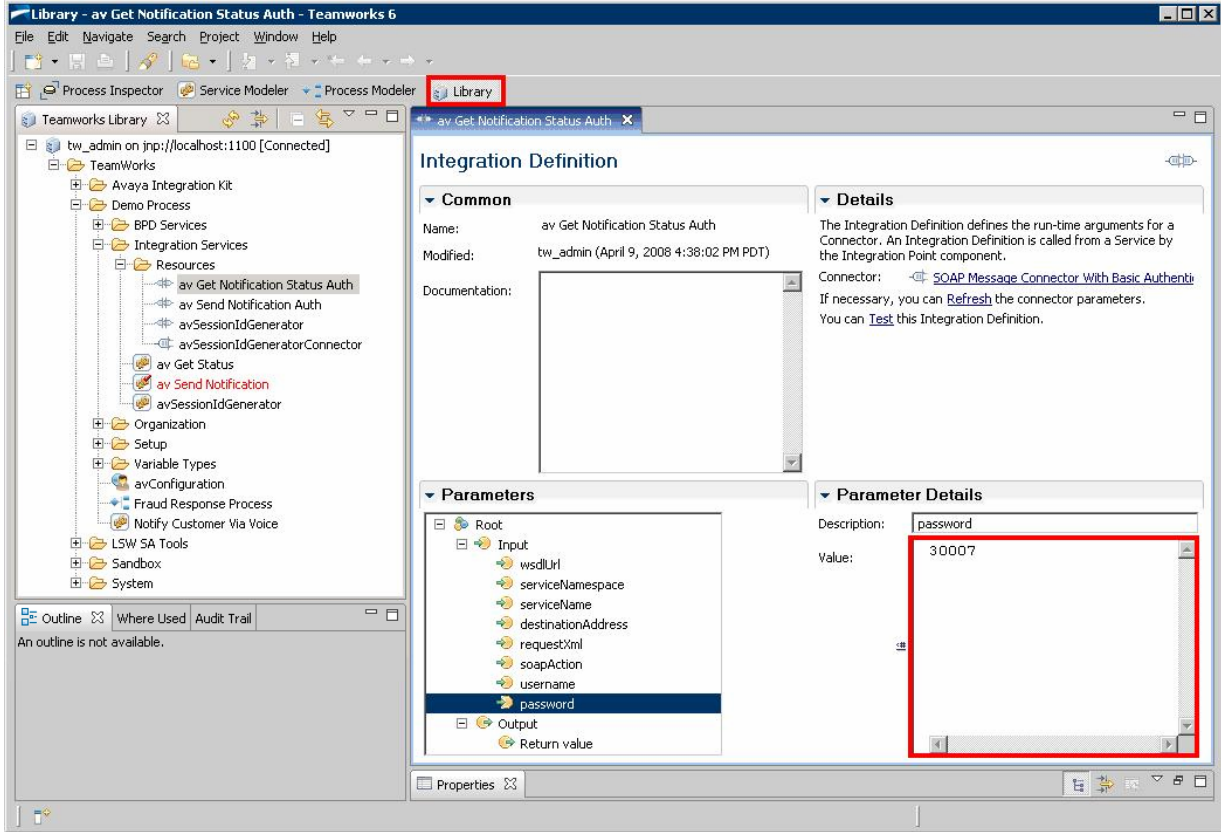
Step	Description
4.2.1	<p>Copy the WSDL and XML schema files to a directory on the Host PC. For this sample configuration, the files were copied to: <b>C:\Temp</b>. The directory where the files are copied must match the directory denoted by the <b>schemaLocation</b> variable in the files.</p> <ul style="list-style-type: none"><li>Open the <b>NotificationAndResponseService.xsd</b> file with a text editor to verify the setting for the <b>schemaLocation</b> variable.<ul style="list-style-type: none"><li>If the root directory where the WSDL files were copied is not equal to the <b>schemaLocation</b> variable, edit the <b>schemaLocation</b> variable appropriately and save the changes.</li></ul></li></ul>
	<pre>&lt;?xml version="1.0" encoding="UTF-8"?&gt; &lt;!--     Definition of the common types that are used in various Diamond Services. --&gt; &lt;xsd:schema targetNamespace="http://xml.avaya.com/diamond/schema/2007/07/NotificationAndResponse Service"     xmlns="http://www.w3.org/2001/XMLSchema"     xmlns:externalcommon="http://xml.avaya.com/diamond/schema/2007/07/external- common"  xmlns:nrsSchema="http://xml.avaya.com/diamond/schema/2007/07/NotificationAndResponse Service"     xmlns:xsd="http://www.w3.org/2001/XMLSchema"     elementFormDefault="qualified"&gt;  &lt;!-- minor_version=1 --&gt;      &lt;xsd:import namespace="http://xml.avaya.com/diamond/schema/2007/07/external- common"         schemaLocation="file:///C:/Temp/cpmwsdl/services/external-common.xsd"/&gt;</pre>
4.2.2	<p>Repeat <b>Step 4.2.1</b> for the following files:</p> <ul style="list-style-type: none"><li>NotificationAndResponseService.wsdl</li><li>SessionIdGenerator.wsdl</li><li>AdvisoryService.xsd</li><li>AdvisoryService.wsdl</li></ul>

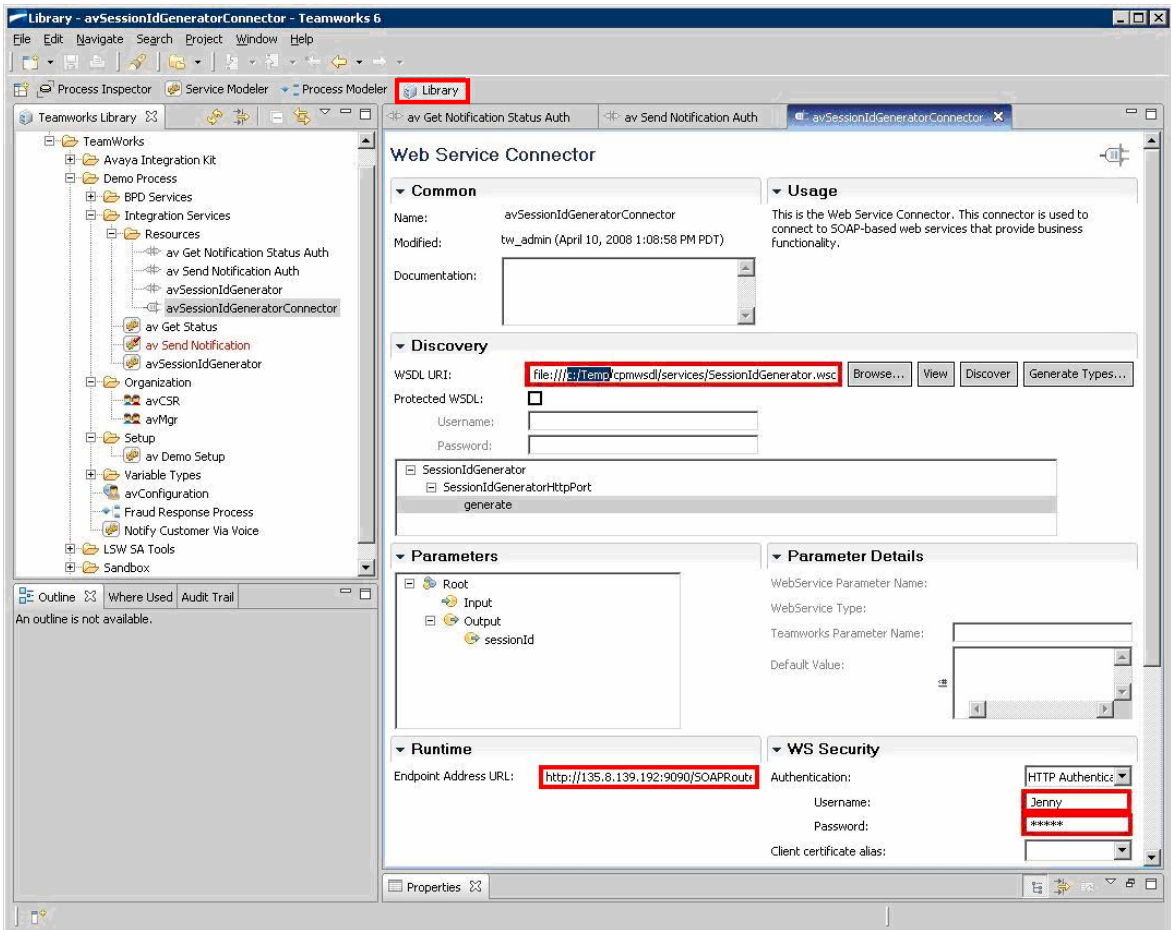
### 4.3. Modify Avaya Specific Components

This section describes the steps to modify the Avaya Specific Components installed in **Section 4.1**. These steps enable Avaya CPM to process fraudulent credit card transactions delivered from Lombardi Teamworks.

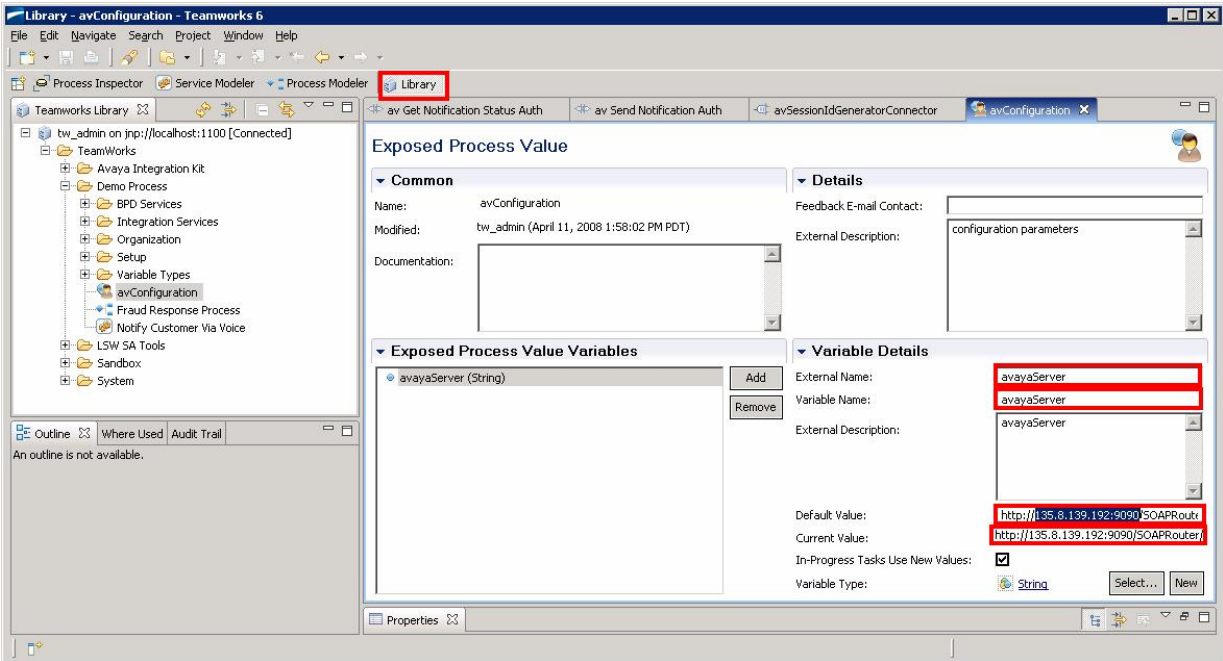
Step	Description
4.3.1	<p>From the Authoring Environment, verify the configuration as follows:</p> <ul style="list-style-type: none"> <li>• If the Process Server is not initialized, start the Process Server (see <b>Appendix C</b>).</li> <li>• Start the Authoring Environment and then log on to Lombardi Teamworks as an administrative user [1].</li> <li>• From the <b>Library</b> tab, select <b>TeamWorks → Demo Processes → Integration Services → Resources → av Get Notification Status Auth</b>.</li> <li>• Verify the <b>wsdlUrl</b> parameter for the <b>av Get Notification Status Auth</b> resource corresponds to the root directory (<b>c:/Temp</b>) where the WSDL and XML schema files were copied (see <b>Section 4.2</b>).</li> </ul> <p><i>Note: If modifications are necessary, right-click on the resource name (<b>av Get Notification Status Auth</b>) and select <b>Check Out</b>. Save changes by selecting <b>File → Save</b> from the Authoring Environment main menu. Then right-click on the resource name and select <b>Check In</b>.</i></p> 

Step	Description
4.3.2	<p>Verify the <b>username</b> parameter corresponds to the user configured on Avaya CPM (see Section 3.1).</p> <p><i>Note: If modifications are necessary, right-click on the resource name (av Get Notification Status Auth) and select <b>Check Out</b>. Save changes by selecting <b>File</b> → <b>Save</b> from the Authoring Environment main menu. Then right-click on the resource name and select <b>Check In</b>.</i></p> 

Step	Description
4.3.3	<p>Verify the <b>password</b> parameter corresponds to a user account provisioned on Avaya CPM. For this sample configuration, the user account displayed in <b>Step 3.1.1</b> was utilized.</p> <p><i>Note: If modifications are necessary, right-click on the resource name (av Get Notification Status Auth) and select <b>Check Out</b>. Save changes by selecting <b>File</b> → <b>Save</b> from the Authoring Environment main menu. Then right-click on the resource name and select <b>Check In</b>.</i></p> 
4.3.4	Repeat the Steps 4.3.1 - 4.3.3 for the <b>av Send Notification Auth</b> resource.

Step	Description
4.3.5	<p>From the <b>Library</b> tab, select <b>TeamWorks</b> → <b>Demo Processes</b> → <b>Integration Services</b> → <b>Resources</b> → <b>avSessionIdGeneratorConnector</b>.</p> <ul style="list-style-type: none"> <li>Verify the <b>WSDL URI</b> entry corresponds to the root directory (<b>c:/Temp</b>) where the WSDL and XML schema files were copied (see <b>Section 4.2</b>).</li> <li>Verify the <b>Endpoint Address URL</b> entry corresponds to the IP address or FQDN of Avaya CPM. Note port <b>9090</b> is used and must be open on Avaya CPM (see <b>Step 6.2</b>). For this sample configuration, the following value was entered: <b>http://135.8.139.192:9090/SOAPRouter/services/SessionIdGeneratorHttpPort</b>.</li> <li>Verify the <b>Username</b> and <b>Password</b> parameters correspond to the user configured on Avaya CPM (see <b>Section 3.1</b>).</li> </ul> <p><i>Note: If modifications are necessary, right-click on the resource name (avSessionIdGeneratorConnector) and select <b>Check Out</b>. Save changes by selecting <b>File</b> → <b>Save</b> from the Authoring Environment main menu. Then right-click on the resource name and select <b>Check In</b>.</i></p> 



Step	Description
4.3.6	<p>From the <b>Library</b> tab, select <b>TeamWorks</b> ➔ <b>Demo Processes</b> ➔ <b>avConfiguration</b>.</p> <ul style="list-style-type: none"> <li>Verify the <b>Exposed Process Value</b> variable is configured. For this sample configuration, it was set to <b>avayaServer</b>.</li> <li>Verify the <b>Default Value</b> and <b>Current Value</b> entries correspond to the IP address or FQDN of Avaya CPM. Note port <b>9090</b> is used and must be open on Avaya CPM (see <b>Step 6.2</b>). For this sample configuration, the following value for the <b>Default Value</b> was entered:  <b>http:// 135.8.139.192:9090/SOAPRouter/services/NotifyAndRespondService</b>.</li> </ul> <p><i>Note: If modifications are necessary, right-click on the resource name (<b>avConfiguration</b>) and select <b>Check Out</b>. Save changes by selecting <b>File</b> ➔ <b>Save</b> from the Authoring Environment main menu. Then right-click on the resource name and select <b>Check In</b>.</i></p> 

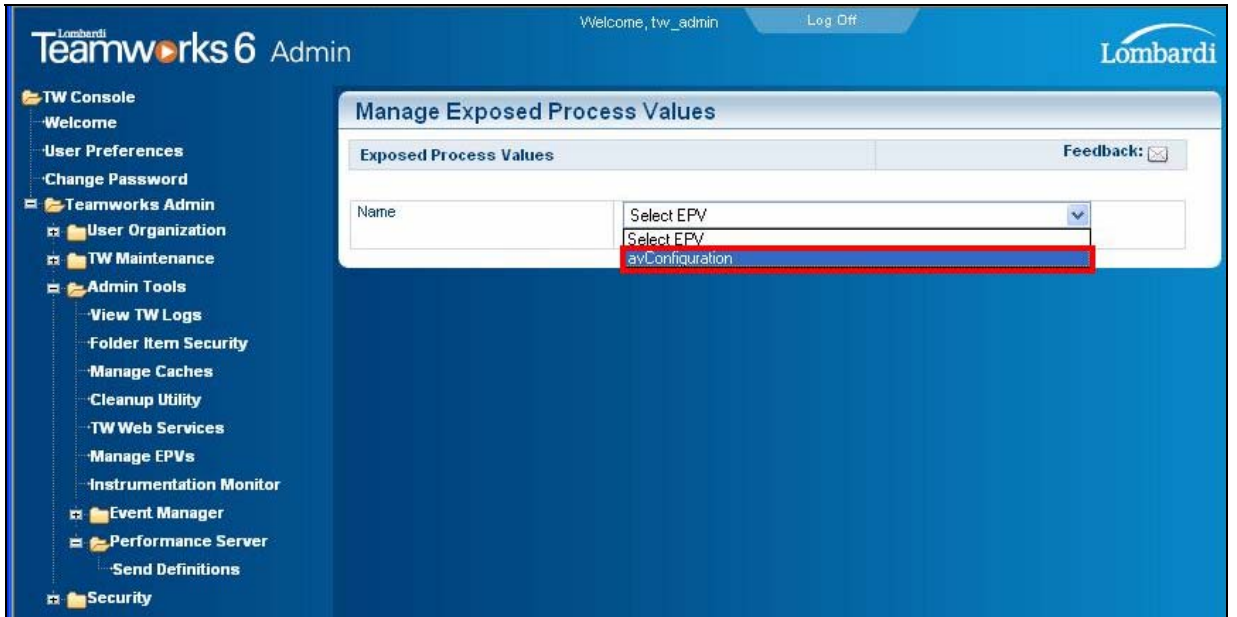


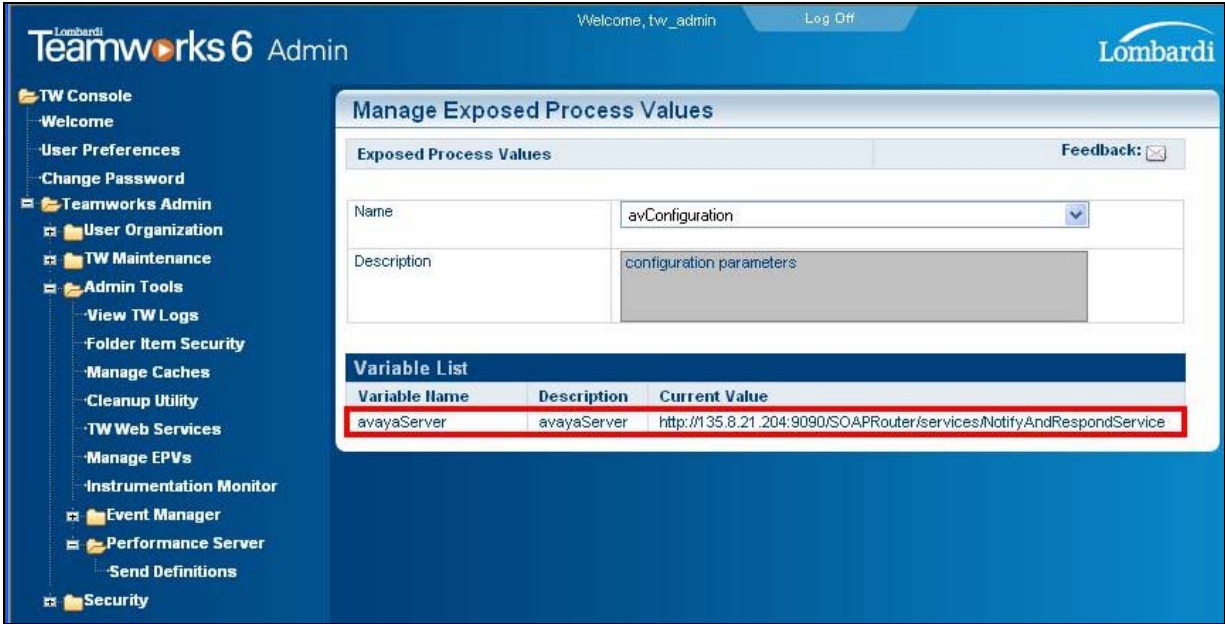
## 4.4. Configure Process Server

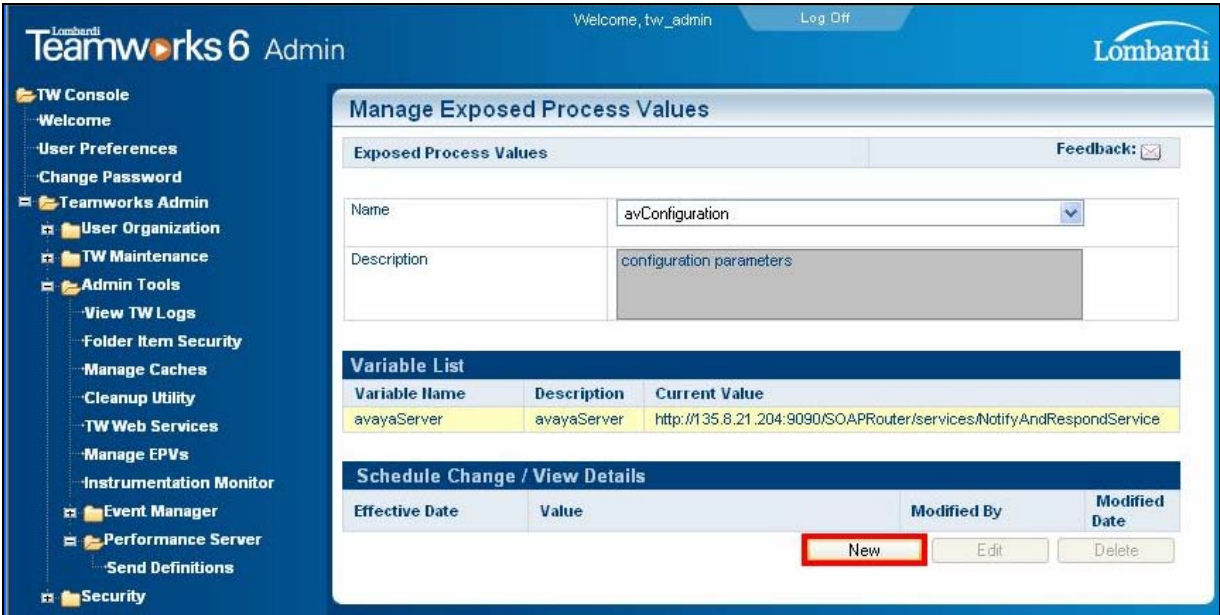
This section describes the steps for configuring Lombardi Teamworks Exposed Process Values (EPVs) via the Lombardi Teamworks Process Server Console. The Process Server Console is made up of the following major areas, parts of which may not be accessible to a user depending on specified user permissions:

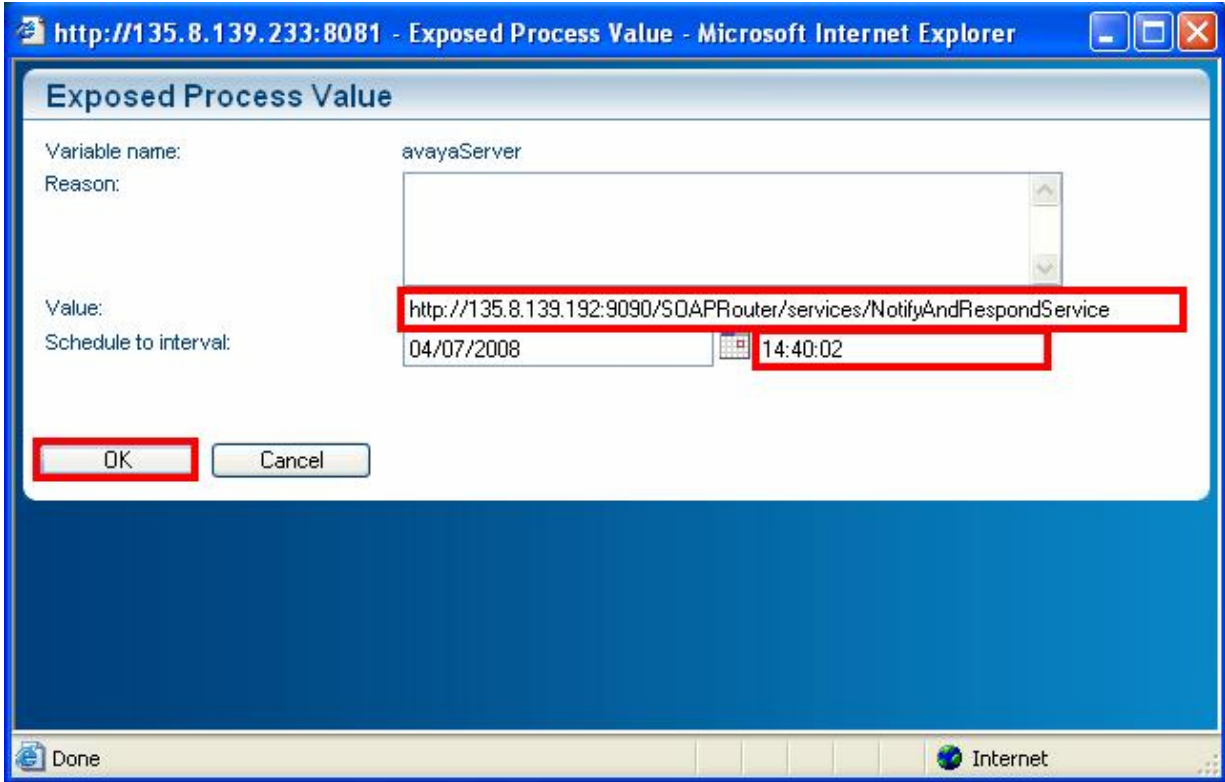
- User Organization
- Teamworks Maintenance
- Administrative Tools
- Security.

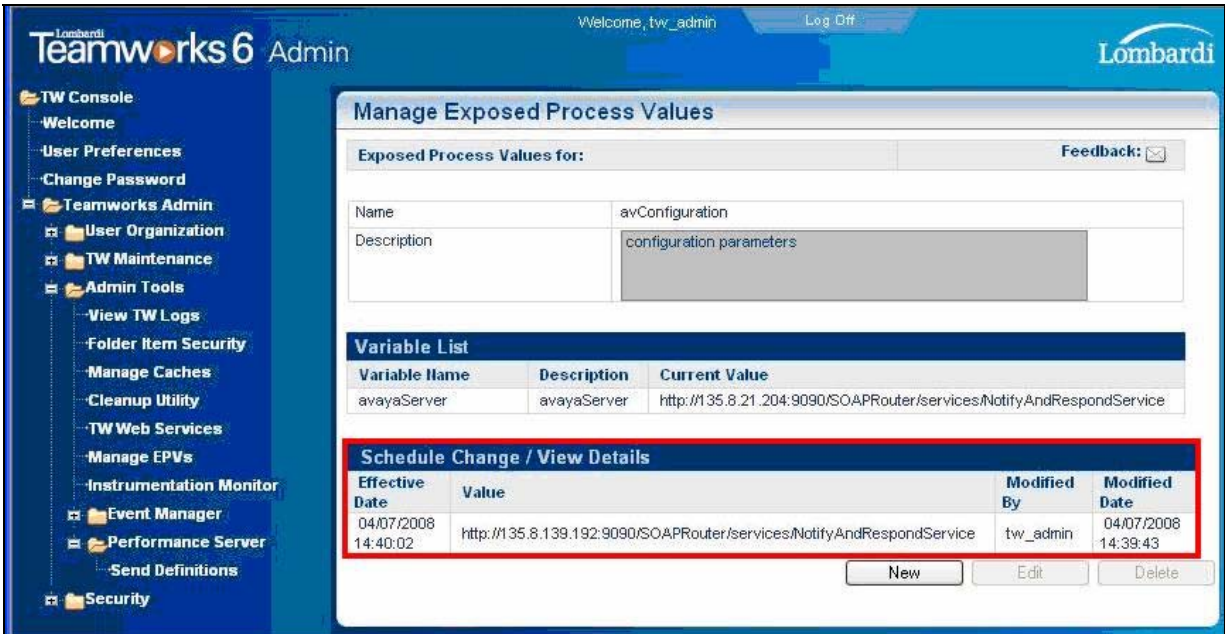
Step	Description
4.4.1	<p>To enable Lombardi Teamworks to communicate with Avaya CPM, provision Avaya CPM as an EVP as follows:</p> <ul style="list-style-type: none"><li>• Verify that the process and performance servers are started (see <b>Appendix C</b>).</li><li>• Open a standard web browser and enter <b>http://&lt;Lombardi Teamworks IP Address or FQDN&gt;:8081/teamworks</b> into the web browser's URL bar.</li><li>• Log in to the Process Server Console with administrative privileges.</li><li>• From the Process Server Console, select <b>TW Console → Teamworks Admin → Admin Tools → Manage EPVs</b>.</li><li>• From the <b>Manage Exposed Process Values</b> page, select <b>avConfiguration</b> from the drop-down list for the <b>Name</b> field.</li></ul>

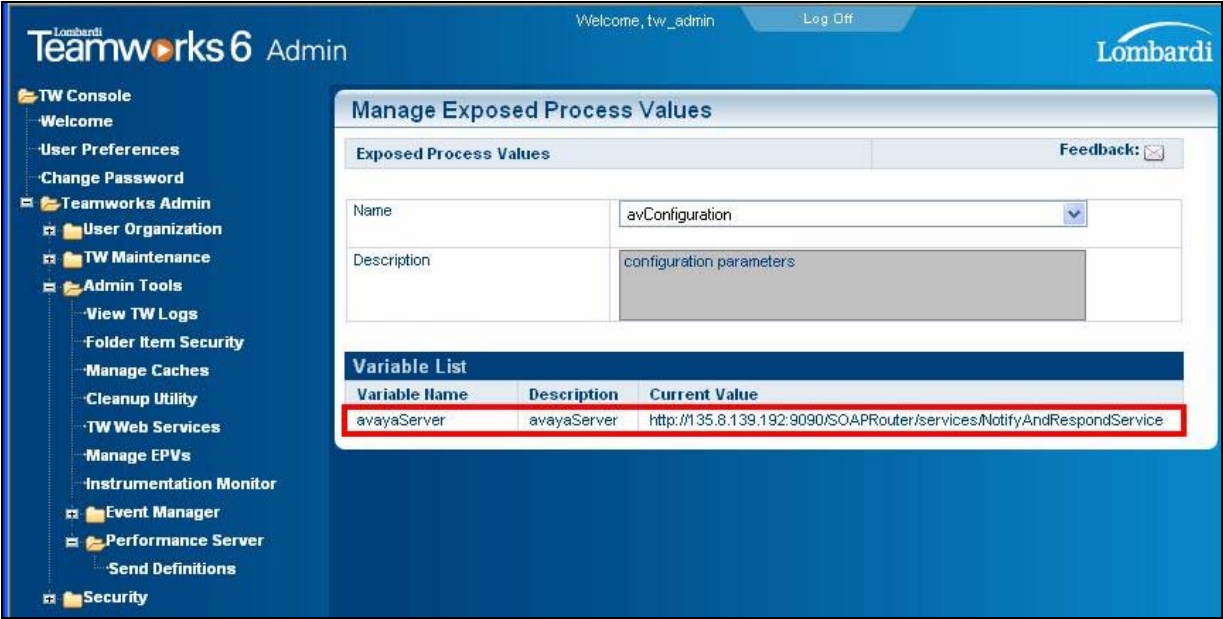


Step	Description						
4.4.2	<p>From the <b>Manage Exposed Process Values</b> page, click the entry for <b>avayaServer</b> in the <b>Variable List</b>.</p>  <p>The screenshot displays the 'Teamworks 6 Admin' interface. On the left is a navigation tree under 'TW Console' including 'Welcome', 'User Preferences', 'Change Password', 'Teamworks Admin' (expanded), 'User Organization', 'TW Maintenance', 'Admin Tools' (expanded), 'View TW Logs', 'Folder Item Security', 'Manage Caches', 'Cleanup Utility', 'TW Web Services', 'Manage EPVs', 'Instrumentation Monitor', 'Event Manager', 'Performance Server', 'Send Definitions', and 'Security'. The main panel is titled 'Manage Exposed Process Values'. It contains a section 'Exposed Process Values' with a 'Feedback' link. Below this is a form with 'Name' set to 'avConfiguration' and 'Description' set to 'configuration parameters'. At the bottom is a 'Variable List' table:</p> <table><thead><tr><th>Variable Name</th><th>Description</th><th>Current Value</th></tr></thead><tbody><tr><td>avayaServer</td><td>avayaServer</td><td>http://135.8.21.204:9090/SOAPRouter/services/NotifyAndRespondService</td></tr></tbody></table>	Variable Name	Description	Current Value	avayaServer	avayaServer	http://135.8.21.204:9090/SOAPRouter/services/NotifyAndRespondService
Variable Name	Description	Current Value					
avayaServer	avayaServer	http://135.8.21.204:9090/SOAPRouter/services/NotifyAndRespondService					

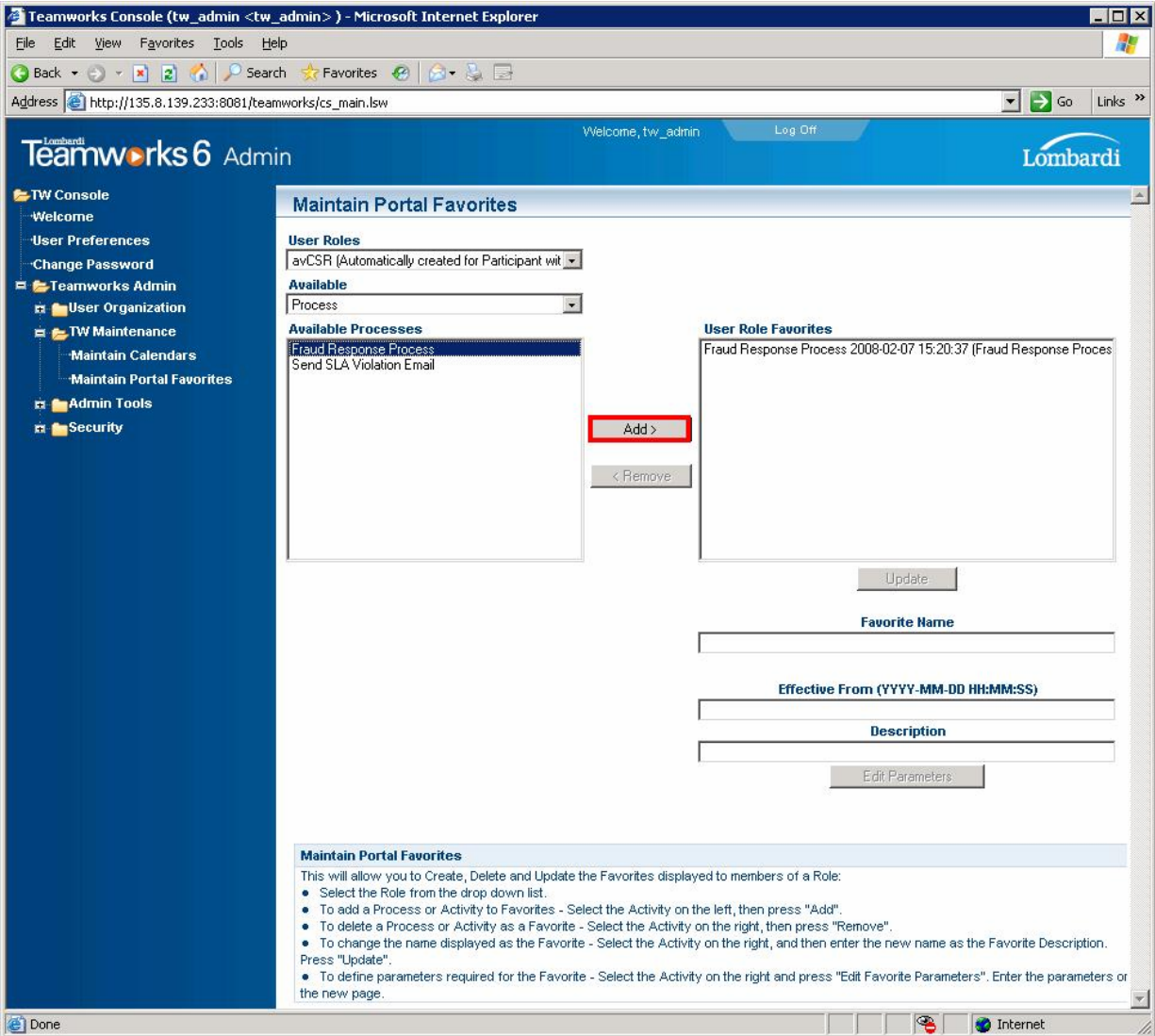
Step	Description
4.4.3	<p>From the <b>Manage Exposed Process Values</b> page, click <b>New</b>.</p> 

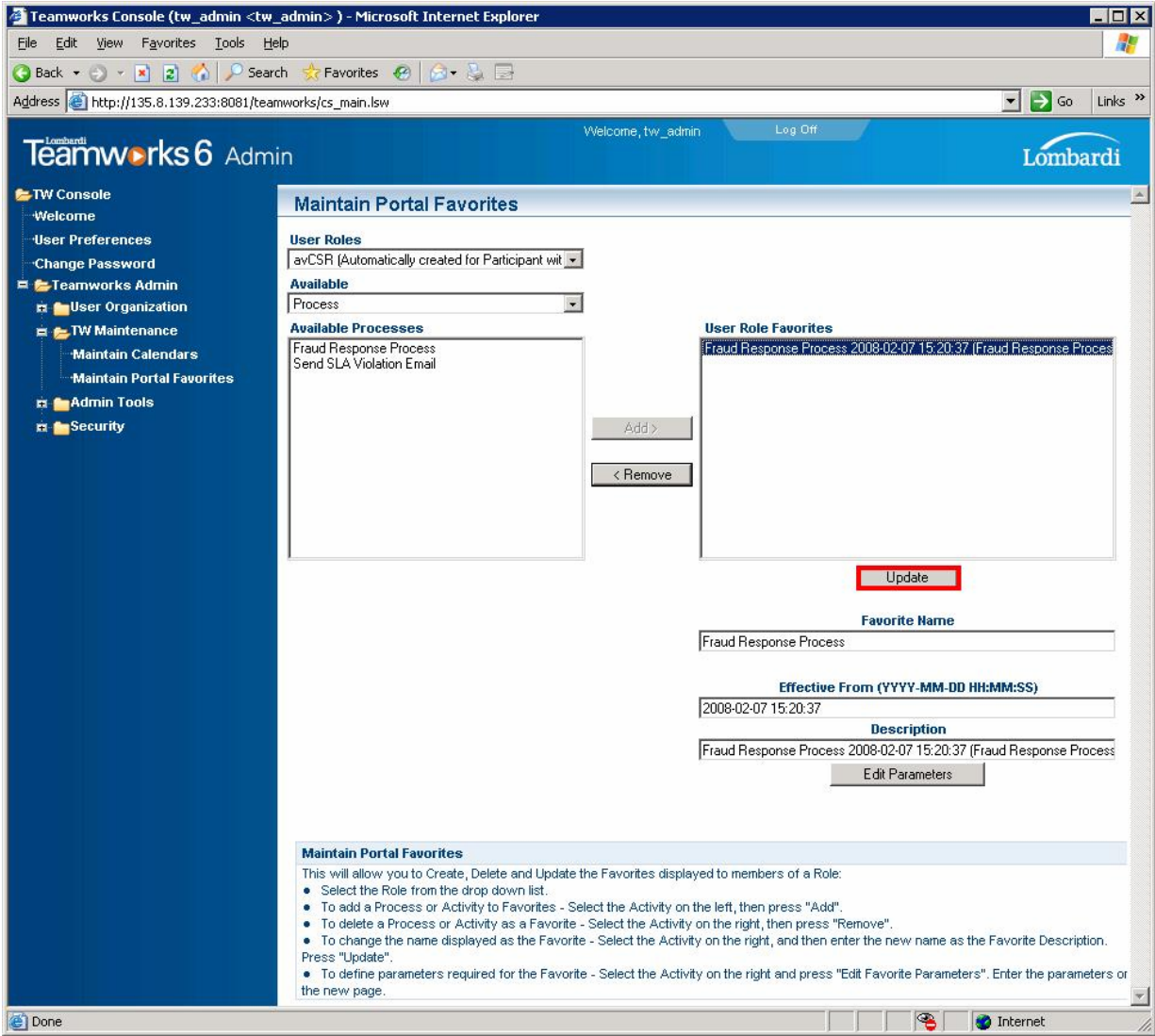
Step	Description
4.4.4	<p>From the <b>Exposed Process Value</b> page, provision as displayed.</p> <ul style="list-style-type: none"> <li>• Enter the URL of Avaya CPM as displayed. For this sample configuration the URL must include: <b>9090/SOAPRouter/services/NotifyAndRespondService</b> as defined by <b>Step 4.3.6</b>.</li> <li>• Enter a time greater than the default entry for the <b>Schedule to interval</b> field. Using the default setting for the time will result in an error (see <b>Step 6.1</b>). For this sample configuration, the <b>Schedule to interval</b> field was provisioned for two minutes greater than the current time.</li> <li>• Click <b>OK</b>.</li> </ul> 

Step	Description
4.4.5	<p>From the <b>Manage Exposed Process Values</b> page, verify entry is successfully added under <b>Schedule Change / View Details</b>.</p>  <p>The screenshot displays the 'Manage Exposed Process Values' page in the Teamworks 6 Admin interface. The left sidebar contains a navigation menu with options such as 'TW Console', 'Welcome', 'User Preferences', 'Change Password', 'Teamworks Admin', 'User Organization', 'TW Maintenance', 'Admin Tools', 'View TW Logs', 'Folder Item Security', 'Manage Caches', 'Cleanup Utility', 'TW Web Services', 'Manage EPVs', 'Instrumentation Monitor', 'Event Manager', 'Performance Server', 'Send Definitions', and 'Security'. The main content area is titled 'Manage Exposed Process Values' and includes a 'Feedback' button. Below the title, there is a section for 'Exposed Process Values for:' with a text input field containing 'avConfiguration' and a 'Description' field containing 'configuration parameters'. A 'Variable List' table is shown below, with columns 'Variable Name', 'Description', and 'Current Value'. It contains one entry: 'avayaServer' with description 'avayaServer' and current value 'http://135.8.21.204:9090/SOAPRouter/services/NotifyAndRespondService'. At the bottom, the 'Schedule Change / View Details' table is highlighted with a red border. This table has columns 'Effective Date', 'Value', 'Modified By', and 'Modified Date'. It contains one entry: '04/07/2008 14:40:02' for the effective date, 'http://135.8.139.192:9090/SOAPRouter/services/NotifyAndRespondService' for the value, 'tw_admin' for the modified by, and '04/07/2008 14:39:43' for the modified date. Below the table are buttons for 'New', 'Edit', and 'Delete'.</p>

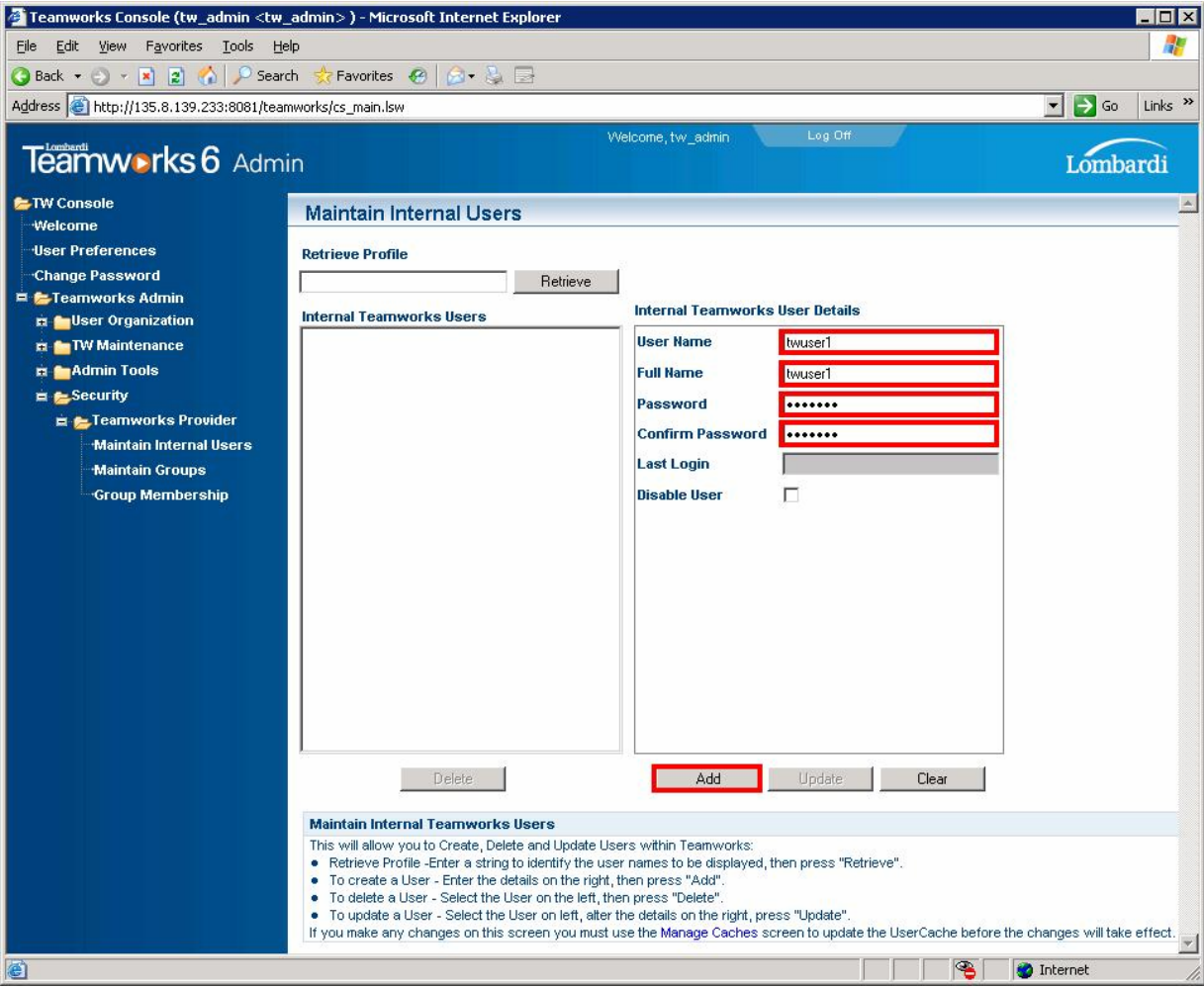
Step	Description
4.4.6	<p>Verify the change to the MPV is successful as follows:</p> <ul style="list-style-type: none"> <li>Following the time when the EPV was scheduled to update, refresh to the <b>Manage Exposed Process Values</b> page. <ul style="list-style-type: none"> <li>Verify the entry for the <b>avayaServer</b> has been updated.</li> </ul> </li> </ul> 



Step	Description
4.4.7	<p>To enable a user to start a process or a service from the Favorites list, provision Portal Favorites as follows:</p> <ul style="list-style-type: none"> <li>From the Process Server Console, select <b>TW Console → Teamworks Admin → TW Maintenance → Manage Portal Favorites</b>.</li> <li>From the <b>Manage Portal Favorites</b> page: <ul style="list-style-type: none"> <li>Select <b>avCSR (Automatically created for Participant with Id:3)</b> from the drop-down list for the <b>User Roles</b> field.</li> <li>Select <b>Process</b> from the drop-down list for the <b>Available</b> field.</li> <li>Select <b>Fraud Response Process</b> and click <b>Add&gt;</b>.</li> </ul> </li> </ul> 

Step	Description
4.4.8	<p>Click Update.</p>  <p>The screenshot shows the Teamworks 6 Admin console in a Microsoft Internet Explorer browser window. The address bar shows the URL: http://135.8.139.233:8081/teamworks/cs_main.lsw. The page title is 'Teamworks 6 Admin'. The sidebar on the left contains a tree view with the following items: TW Console, Welcome, User Preferences, Change Password, Teamworks Admin, User Organization, TW Maintenance, Maintain Calendars, Maintain Portal Favorites (selected), Admin Tools, and Security. The main content area is titled 'Maintain Portal Favorites'. It contains three sections: 'User Roles' with a dropdown menu showing 'avCSR (Automatically created for Participant wit...)', 'Available' with a dropdown menu showing 'Process', and 'Available Processes' with a list of 'Fraud Response Process' and 'Send SLA Violation Email'. There are 'Add &gt;' and '&lt; Remove' buttons between these sections. The 'User Role Favorites' section shows a list of favorites, with one entry: 'Fraud Response Process 2008-02-07 15:20:37 (Fraud Response Process)'. Below this list is an 'Update' button, which is highlighted with a red box. At the bottom of the main content area, there are fields for 'Favorite Name' (containing 'Fraud Response Process'), 'Effective From (YYYY-MM-DD HH:MM:SS)' (containing '2008-02-07 15:20:37'), and 'Description' (containing 'Fraud Response Process 2008-02-07 15:20:37 (Fraud Response Process)'). There is an 'Edit Parameters' button next to the description field. At the bottom of the page, there is a section titled 'Maintain Portal Favorites' with instructions: 'This will allow you to Create, Delete and Update the Favorites displayed to members of a Role:'. The instructions are: <ul style="list-style-type: none"> <li>Select the Role from the drop down list.</li> <li>To add a Process or Activity to Favorites - Select the Activity on the left, then press "Add".</li> <li>To delete a Process or Activity as a Favorite - Select the Activity on the right, then press "Remove".</li> <li>To change the name displayed as the Favorite - Select the Activity on the right, and then enter the new name as the Favorite Description. Press "Update".</li> <li>To define parameters required for the Favorite - Select the Activity on the right and press "Edit Favorite Parameters". Enter the parameters on the new page.</li> </ul> </p>



Step	Description
4.4.9	<p>Add Internal Users on Lombardi Teamworks as follows:</p> <ul style="list-style-type: none"> <li>From the Process Server Console, select <b>TW Console → Teamworks Admin → Security → Teamworks Provider → Maintain Internal Users</b>.</li> <li>From the <b>Manage Internal Users</b> page: <ul style="list-style-type: none"> <li>Enter a descriptive name in the <b>User Name</b> field.</li> <li>Enter a descriptive name in the <b>Full Name</b> field.</li> <li>Enter a password in the <b>Password</b> and <b>Confirm Password</b> fields respectively.</li> <li>Click <b>Add</b>.</li> </ul> </li> </ul> 
4.4.10	<p>Repeat <b>Step 4.4.9</b> to add two additional users configured as follows:</p> <ul style="list-style-type: none"> <li><b>User Name</b> field: <b>twuser2</b>, <b>Full Name</b> field: <b>twuser2</b>, <b>Password</b> field: <b>twuser2</b>.</li> <li><b>User Name</b> field: <b>twuser3</b>, <b>Full Name</b> field: <b>twuser3</b>, <b>Password</b> field: <b>twuser3</b>.</li> </ul>

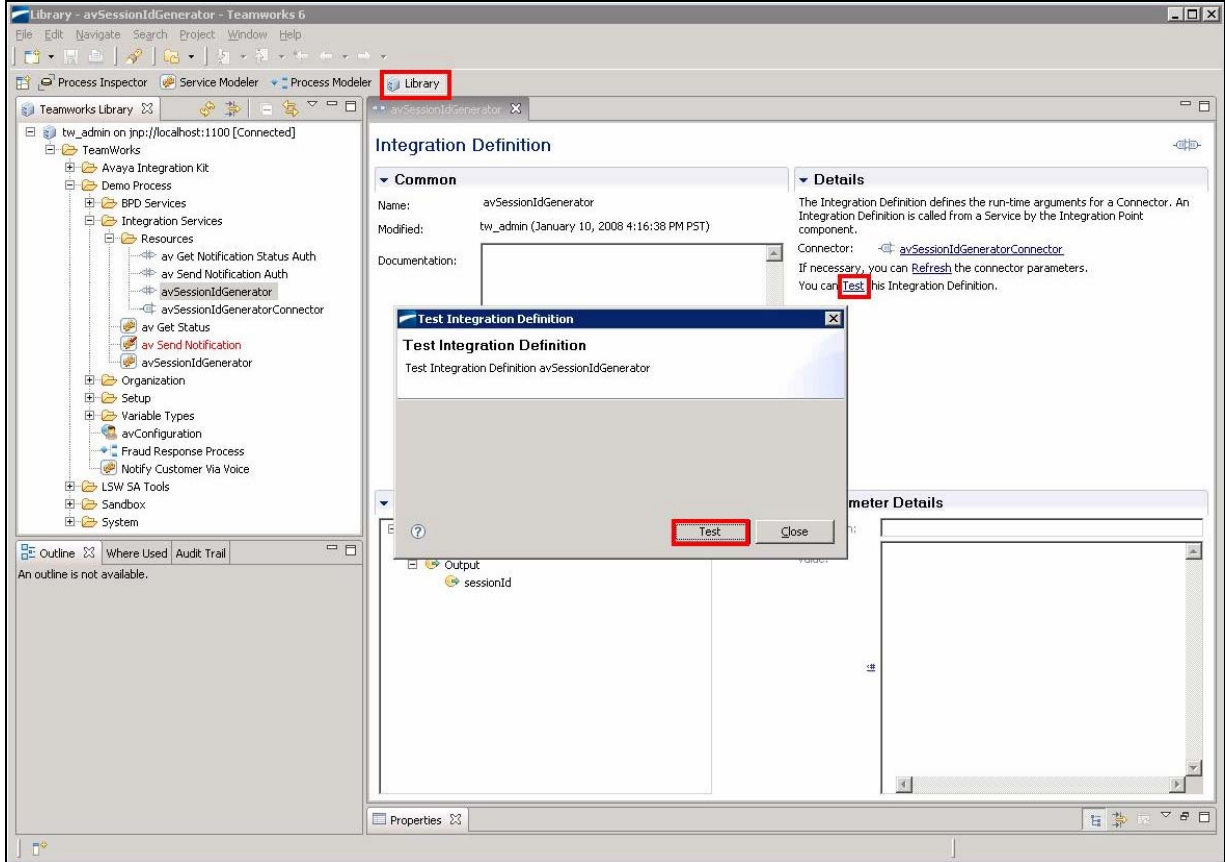
## 4.5. Add Users to Avaya Specific Components

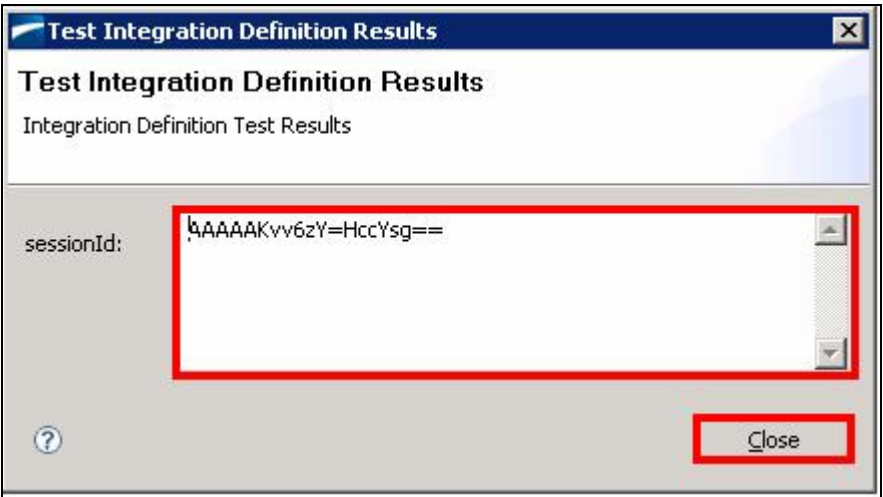
This section describes the steps to add the users to the Avaya Specific Components installed in **Section 4.1** and modified in **Section 4.3**.

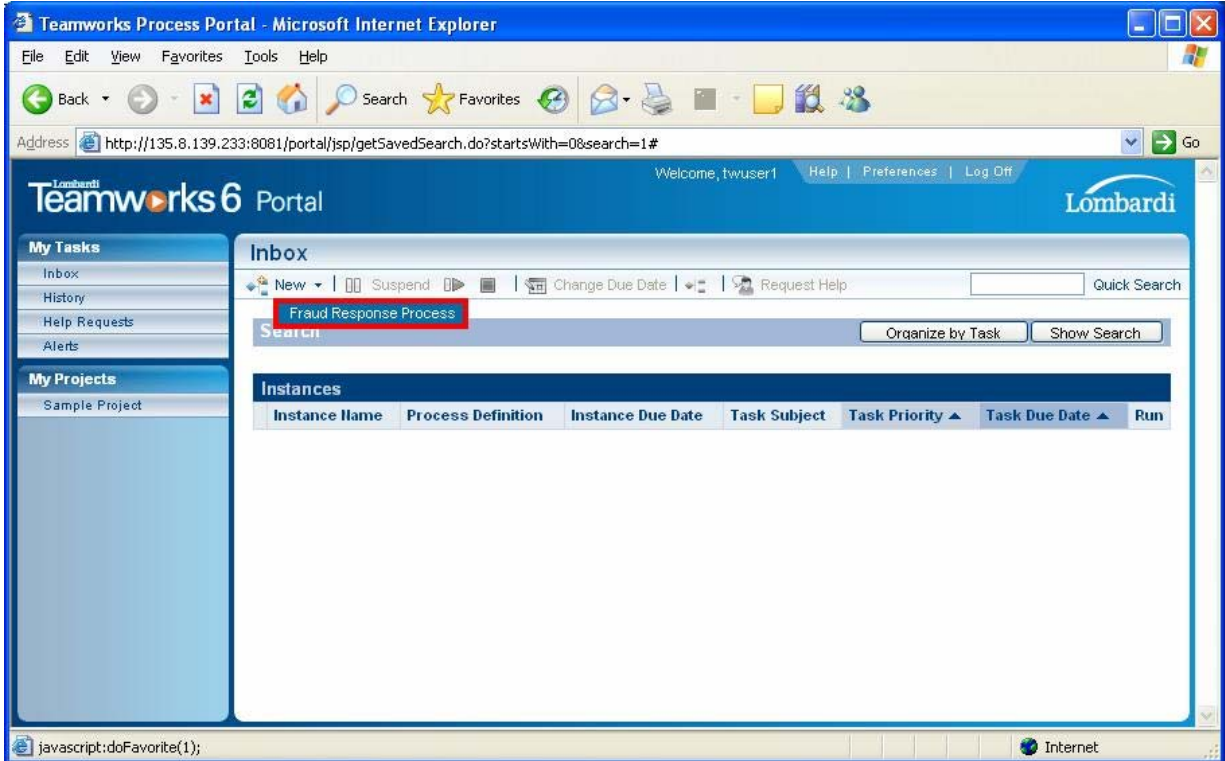
Step	Description
4.5.1	<p>From the Authoring Environment, add the users created in <b>Steps 4.4.9 - 4.4.10</b> as follows:</p> <ul style="list-style-type: none"><li>• From the <b>Teamworks Library</b>, select <b>TeamWorks</b> ➔ <b>Demo Processes</b> ➔ <b>Organization</b> ➔ <b>avCSR</b>.</li><li>• Right-click on the resource name (<b>avCSR</b>) and select <b>Check Out</b>.</li><li>• Select the users created in <b>Steps 4.4.9 - 4.4.10</b> and click <b>Add&gt;</b>.</li><li>• Save changes by selecting <b>File</b> ➔ <b>Save</b> from the Authoring Environment main menu.</li><li>• Right-click on <b>avCSR</b> and select <b>Check In</b>.</li></ul>

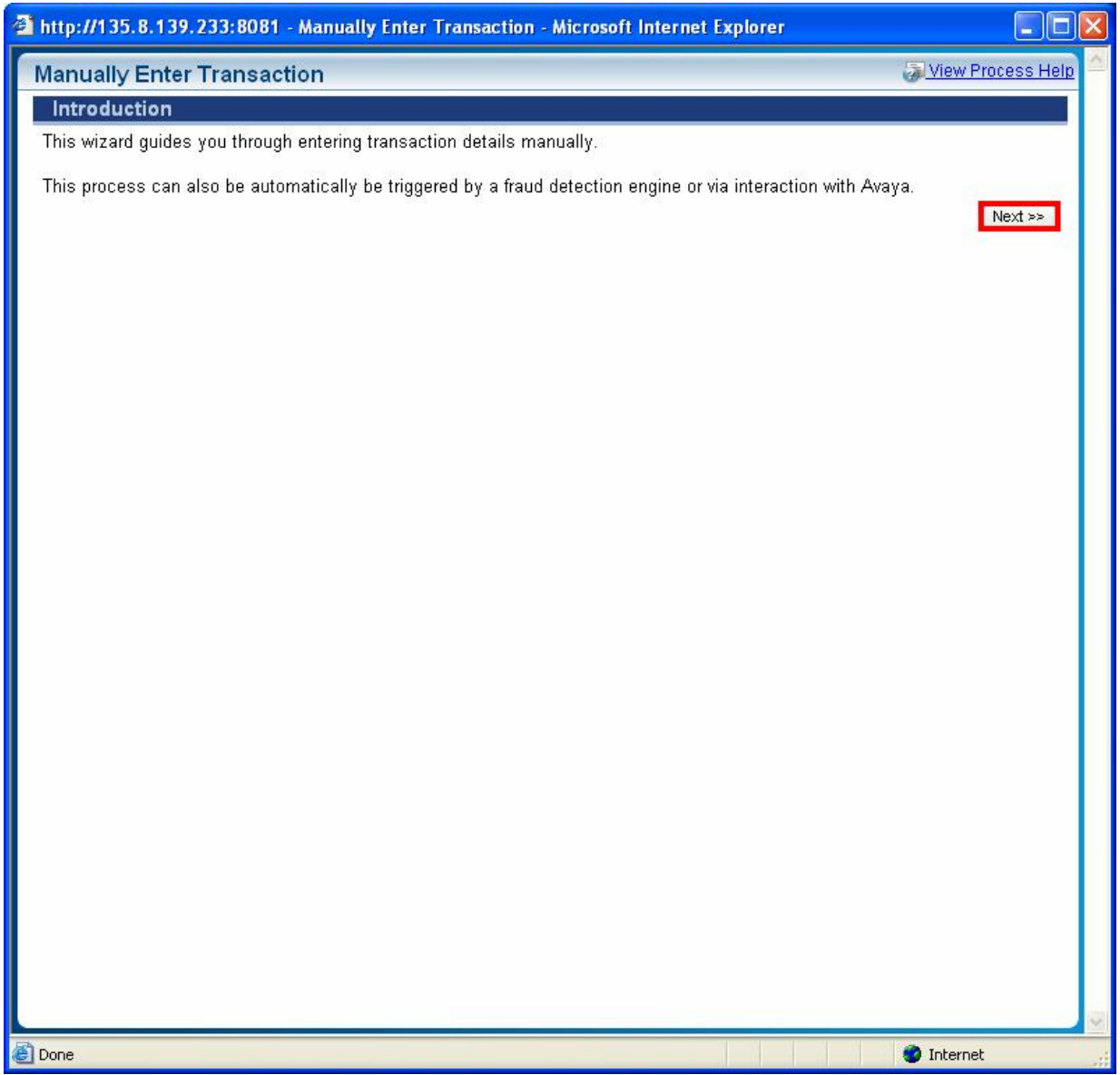
## 5. Verification Steps

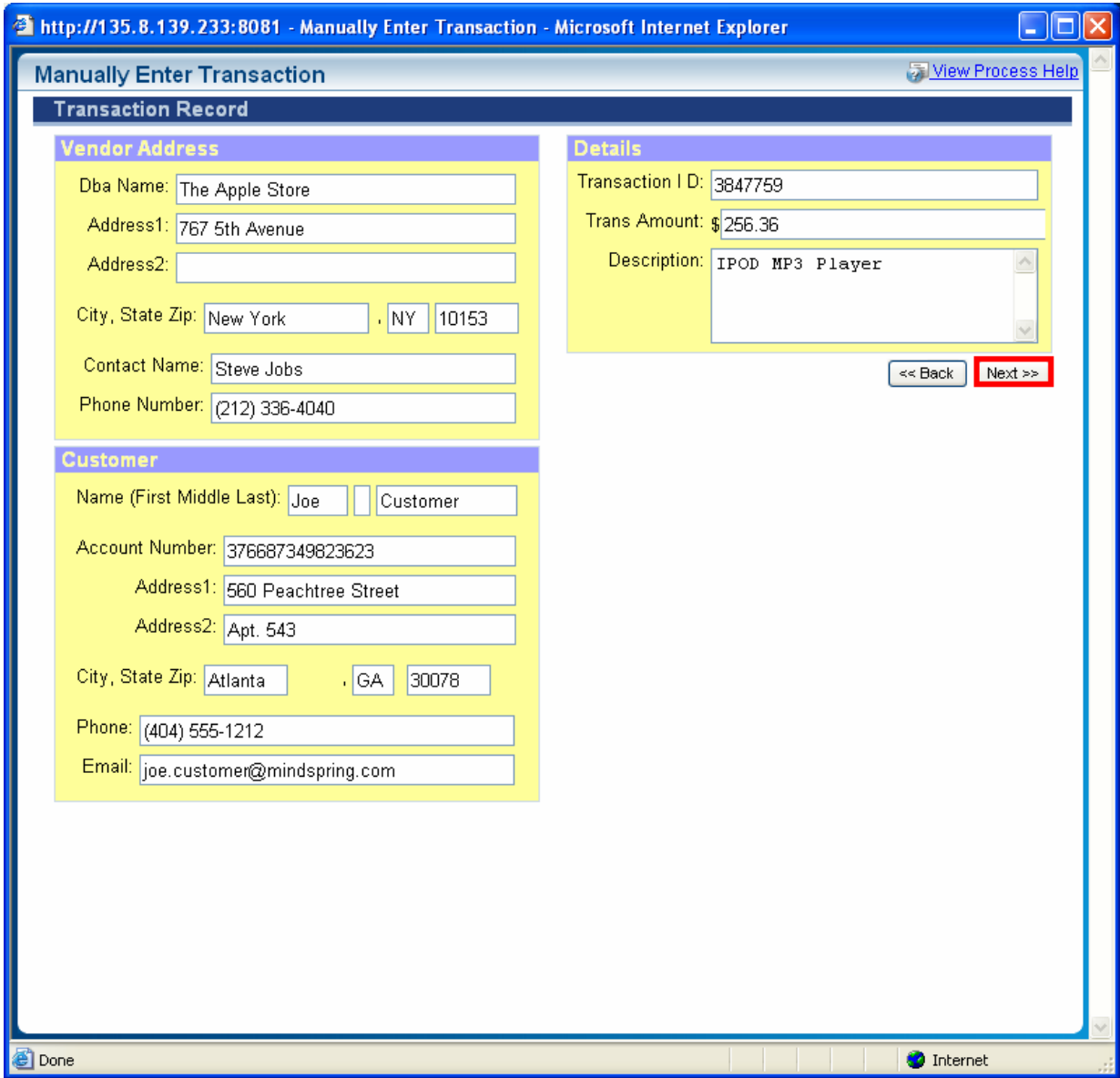
The following steps were used to verify the administrative steps presented in these Application Notes and are applicable for similar configurations in the field.

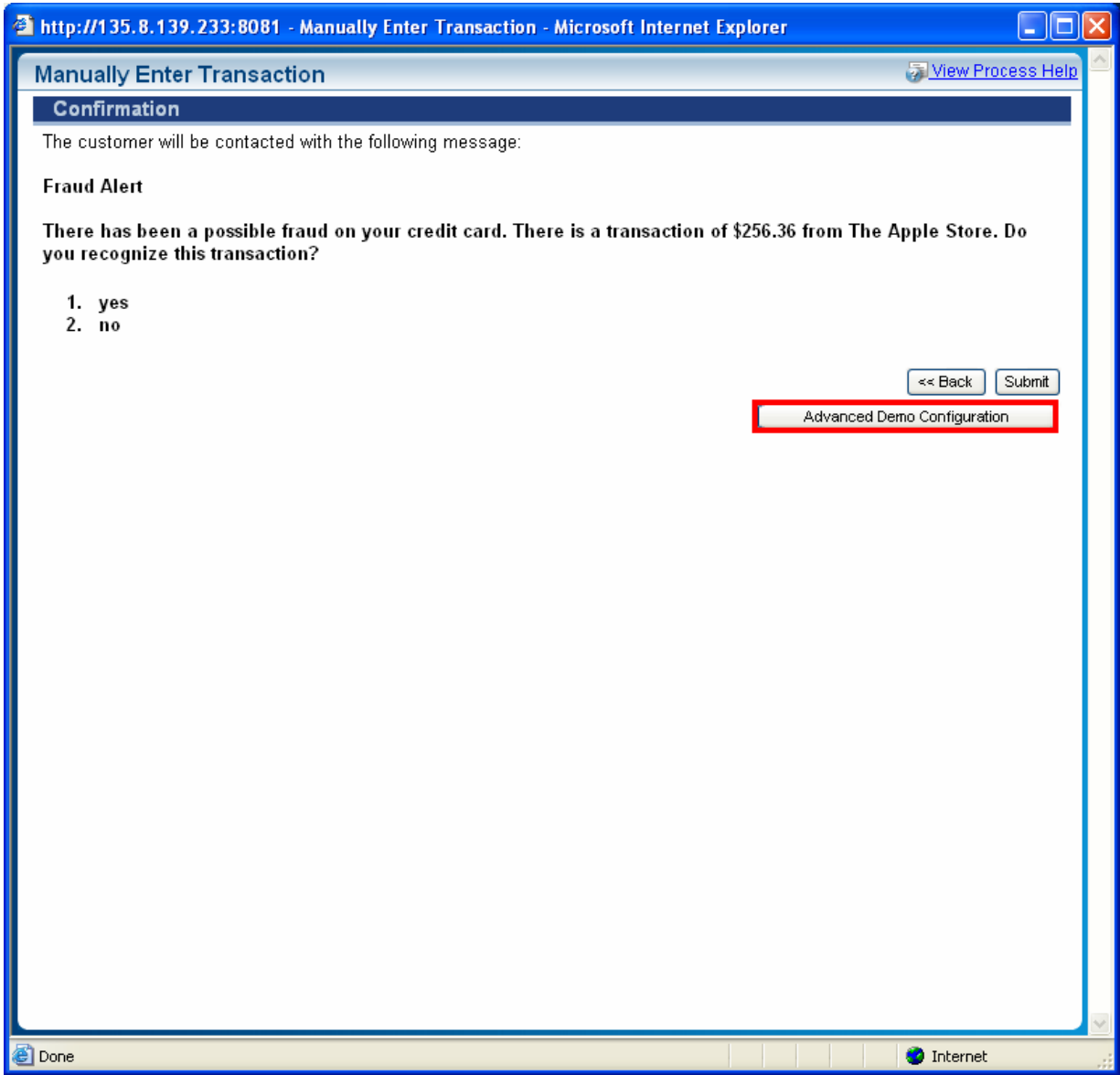
Step	Description
5.1	<p>From the Authoring Environment, verify connectivity between Avaya CPM and Lombardi Teamworks as follows:</p> <ul style="list-style-type: none"> <li>From the <b>Teamworks Library</b>, select <b>avSessionIdGenerator</b>.</li> <li>Click <b>Test</b>.</li> </ul>  <p>The screenshot displays the Teamworks 6 application window. On the left, the 'Teamworks Library' pane shows a tree structure with 'avSessionIdGenerator' selected under 'Integration Services'. The main area shows the 'Integration Definition' for 'avSessionIdGenerator', with fields for Name, Modified, and Documentation. A 'Test Integration Definition' dialog box is open in the foreground, showing the 'Test' button highlighted with a red box. The dialog box also displays the 'Output' section with 'sessionId' listed.</p>

Step	Description
5.2	<p>From the pop-up window, click <b>Test</b>. If successful, a value is returned for the <b>sessionId</b> parameter. If the test fails, see <b>Step 6.2</b> and <b>Step 6.3</b>.</p> 

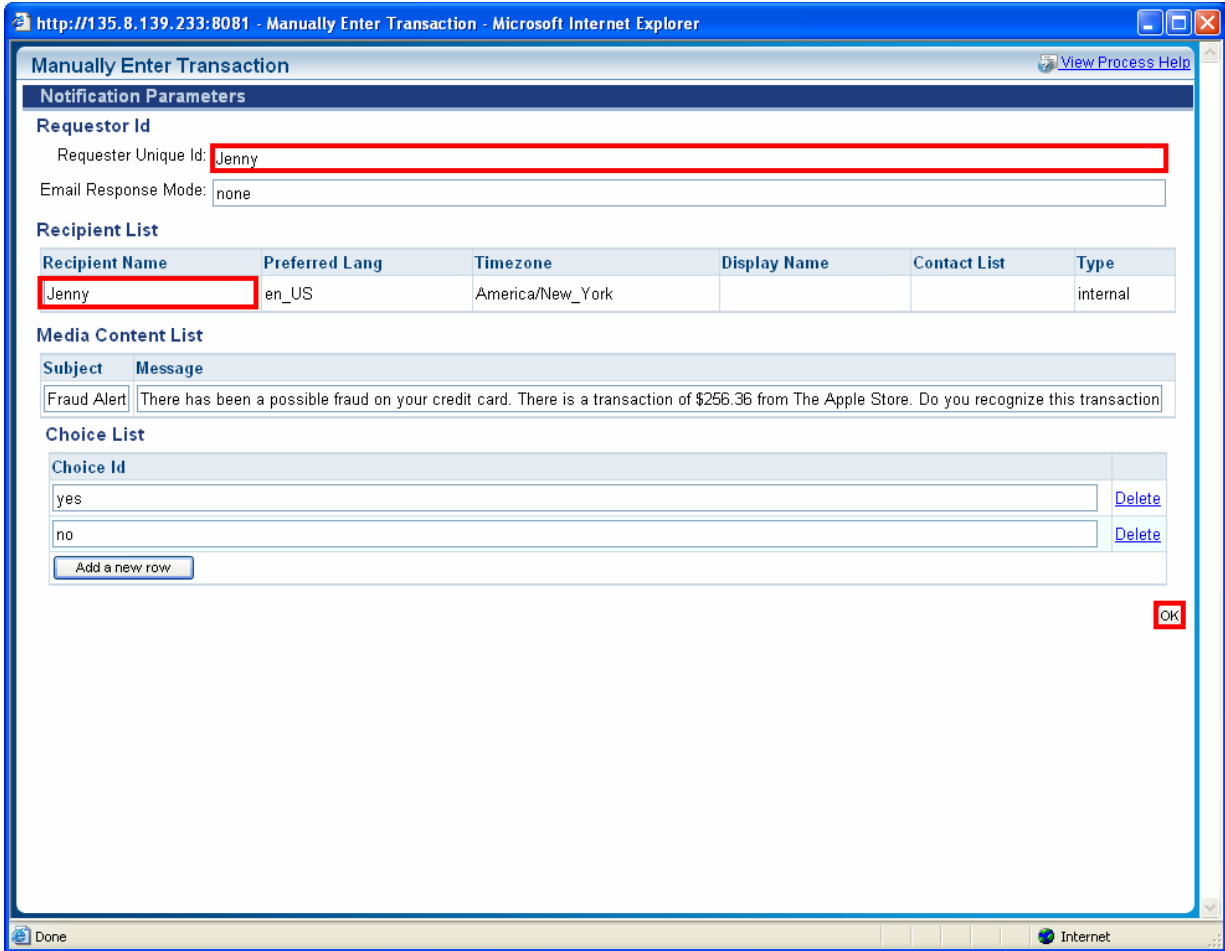
Step	Description
5.3	<p>Validate connectivity between Avaya CPM and Lombardi Teamworks by imitating a transaction for a <b>Fraud Response Process</b> as follows:</p> <ul style="list-style-type: none"> <li>• Verify that the process and performance servers are started (see <b>Appendix C</b>).</li> <li>• Open a standard web browser and enter <b>http://&lt;Lombardi Teamworks IP Address or FQDN&gt;:8081/portal</b> into the web browser's URL bar.</li> <li>• Log in to the Process Server Console with user privileges, e.g., select a user account created in <b>Steps 4.4.9 - 4.4.10</b>.</li> <li>• Select <b>New ➔ Fraud Response Process</b>.</li> </ul> 

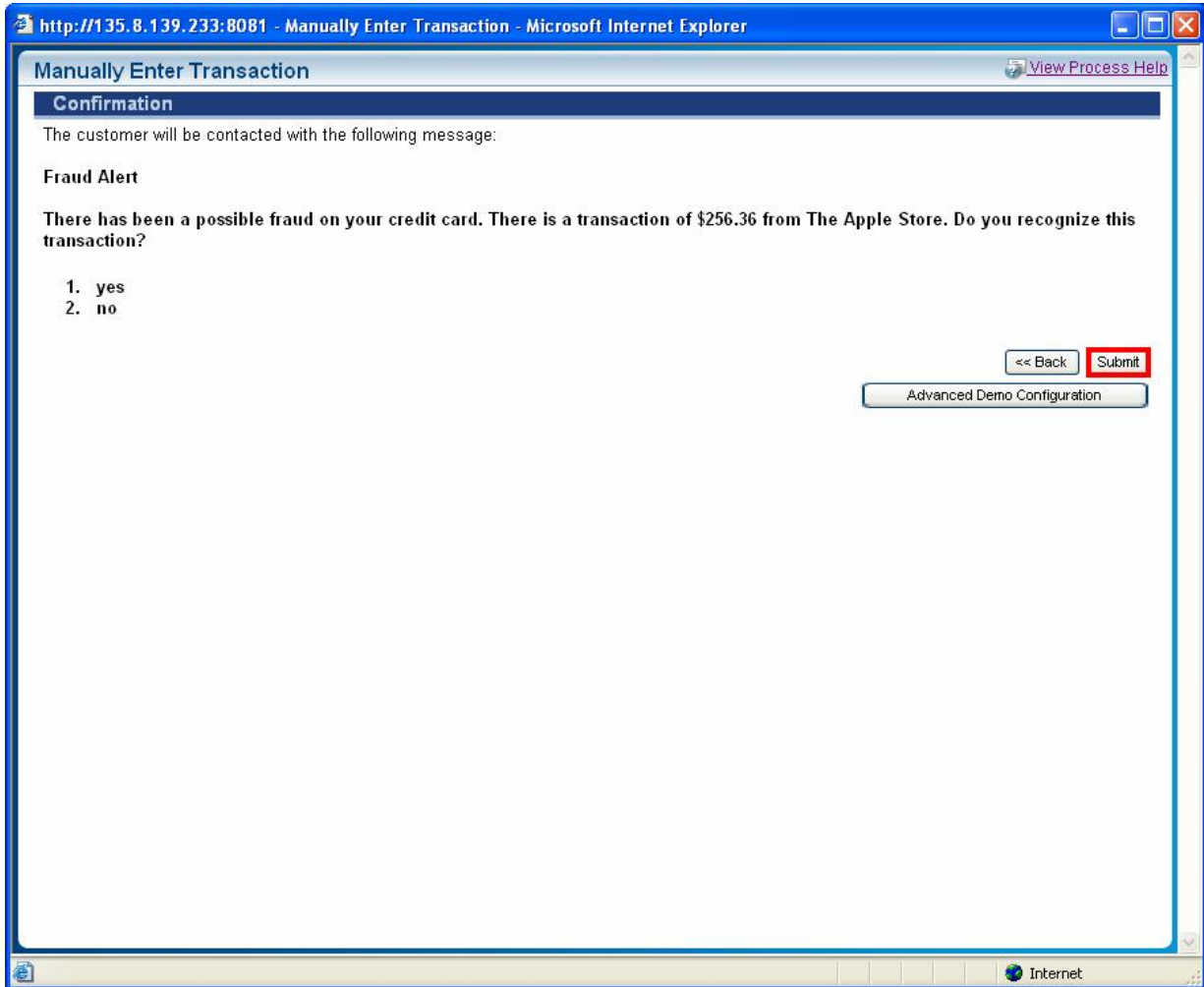
Step	Description
5.4	<p>From the pop-up window, click <b>Next &gt;&gt;</b>.</p> 

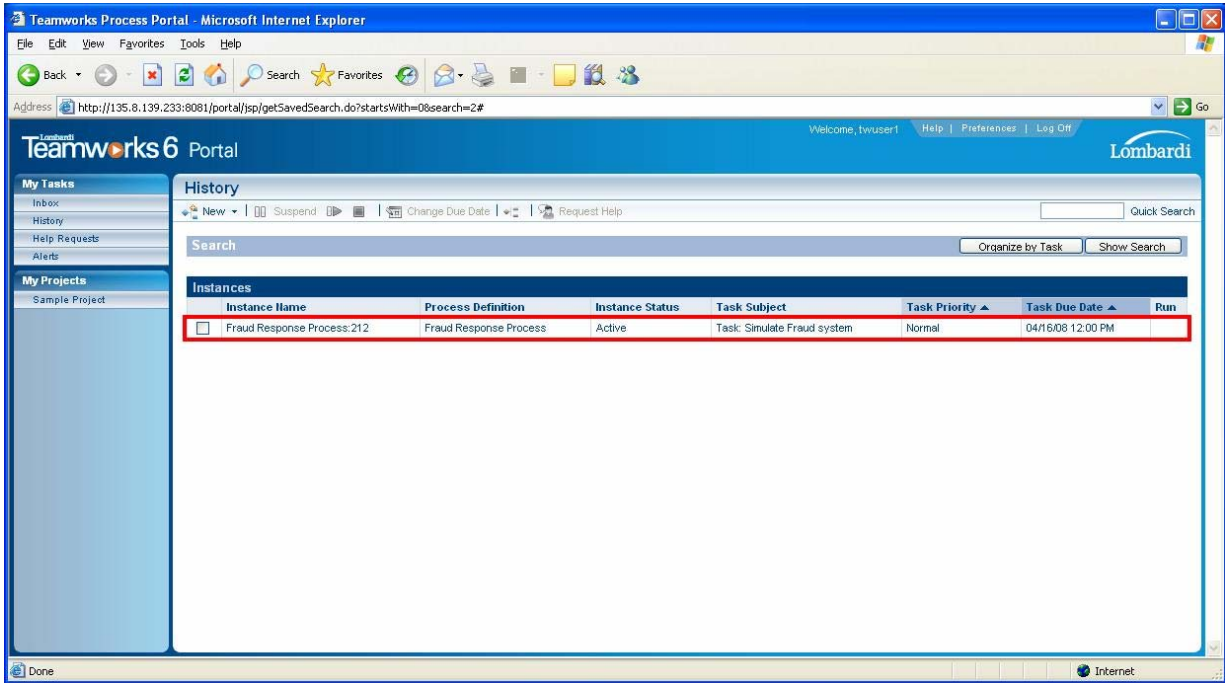
Step	Description
5.5	<p>Accept default text for transaction and click <b>Next &gt;&gt;</b>.</p> 

Step	Description
5.6	<p data-bbox="293 268 805 304">Click <b>Advanced Demo Configuration</b>.</p> 



Step	Description
5.7	<p>Verify a user account on Avaya CPM is entered in the <b>Requester Unique ID</b> and <b>Recipient Name</b> fields. For this sample configuration, the <b>Handle</b> for the user account displayed in <b>Step 3.1.1</b> was entered for both fields. Click <b>OK</b>.</p> 

Step	Description
5.8	<p data-bbox="293 268 480 300">Click <b>Submit</b>.</p> 

Step	Description
5.9	<p>To view status of the transaction for the <b>Fraud Response Process</b>:</p> <ul style="list-style-type: none"> <li>Click <b>History</b> under <b>My Tasks</b>.</li> <li>Click the entry for <b>Fraud Response Process 212</b>.</li> </ul>  <p>The screenshot shows the Teamworks 6 Portal interface. On the left, there is a navigation menu with 'My Tasks' and 'My Projects'. The 'My Tasks' section is expanded, showing 'Inbox', 'History', 'Help Requests', and 'Alerts'. The 'History' tab is selected. The main content area displays a table of task instances. The table has columns: Instance Name, Process Definition, Instance Status, Task Subject, Task Priority, Task Due Date, and Run. A single instance is listed: 'Fraud Response Process: 212' under the 'Instance Name' column, 'Fraud Response Process' under 'Process Definition', 'Active' under 'Instance Status', 'Task: Simulate Fraud system' under 'Task Subject', 'Normal' under 'Task Priority', and '04/16/08 12:00 PM' under 'Task Due Date'. The 'Run' column has a checkbox. The entire table row is highlighted with a red border.</p>

Step	Description
5.10	Verify the <b>Status</b> field returns <b>New</b> .

The screenshot displays the Teamworks 6 Portal interface within a Microsoft Internet Explorer browser. The address bar shows the URL: <http://135.8.139.233:8081/portal/jsp/getProcessDetails.do?bpdInstanceId=212>. The page title is "Teamworks 6 Portal" and the user is logged in as "Welcome, twuser1".

The main content area is titled "History : Fraud Response Process (Fraud Response Process:212)". It contains several sections:

- Instance Details:**

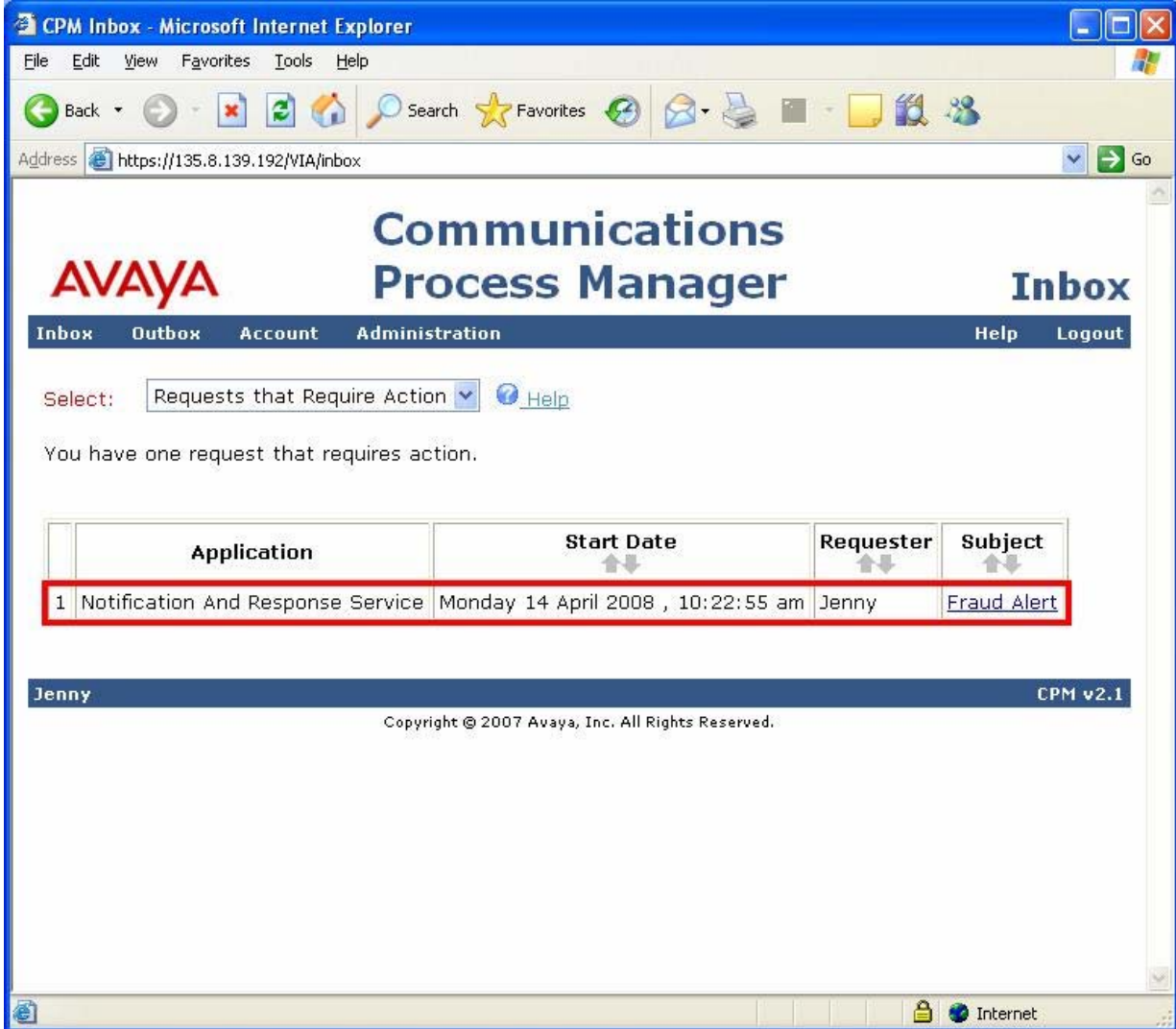
Process Definition:	Fraud Response Process	Status:	Active
Instance Name:	Fraud Response Process:212	Due Date:	04/28/08 9:19 AM
Instance ID:	212		
- Tasks:**

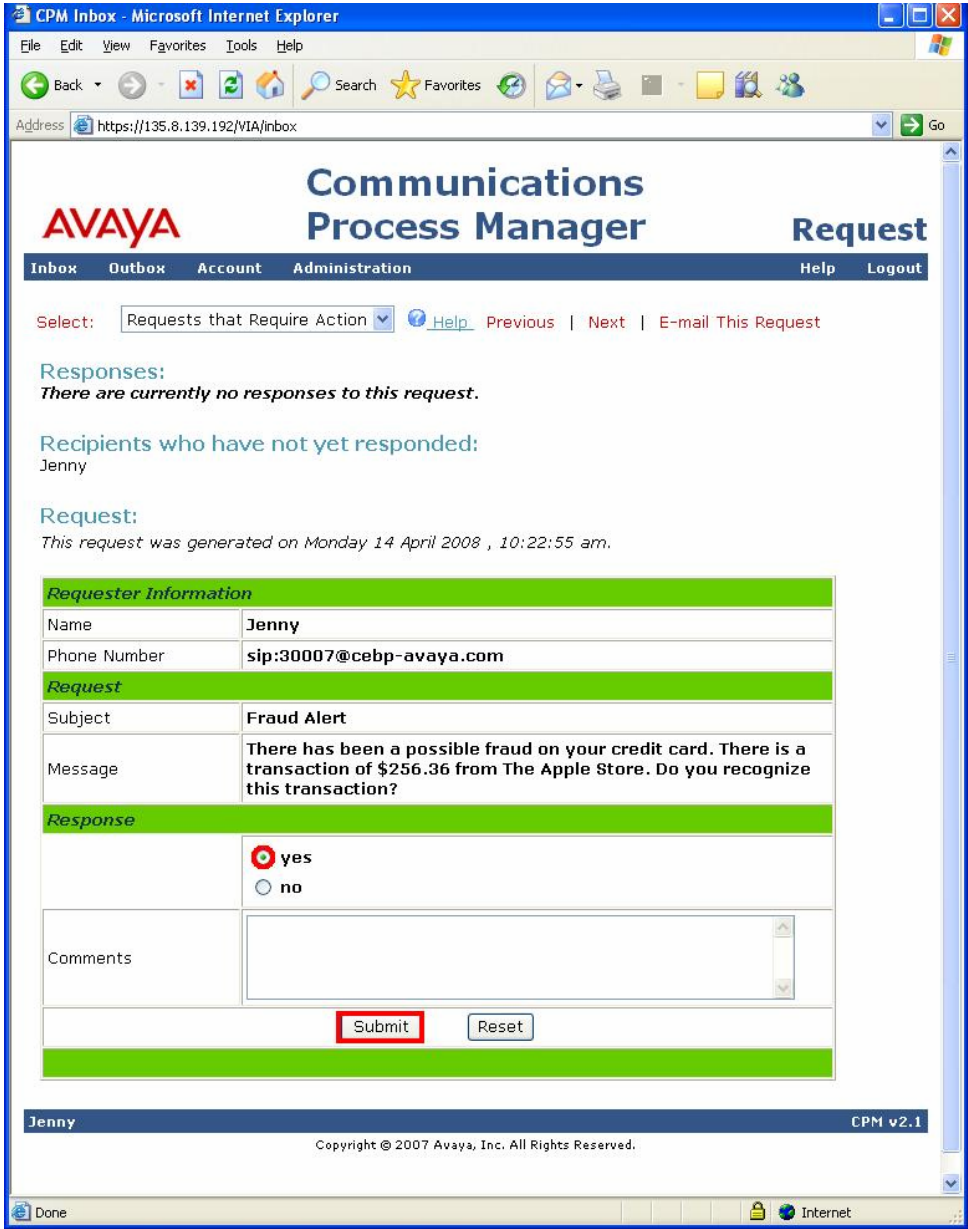
Activity Name	Status	Participant	Priority	Due Date	Run
<input type="checkbox"/> Check Response	New	tw_admin	Normal	04/16/08 12:00 PM	
- Collaboration:**


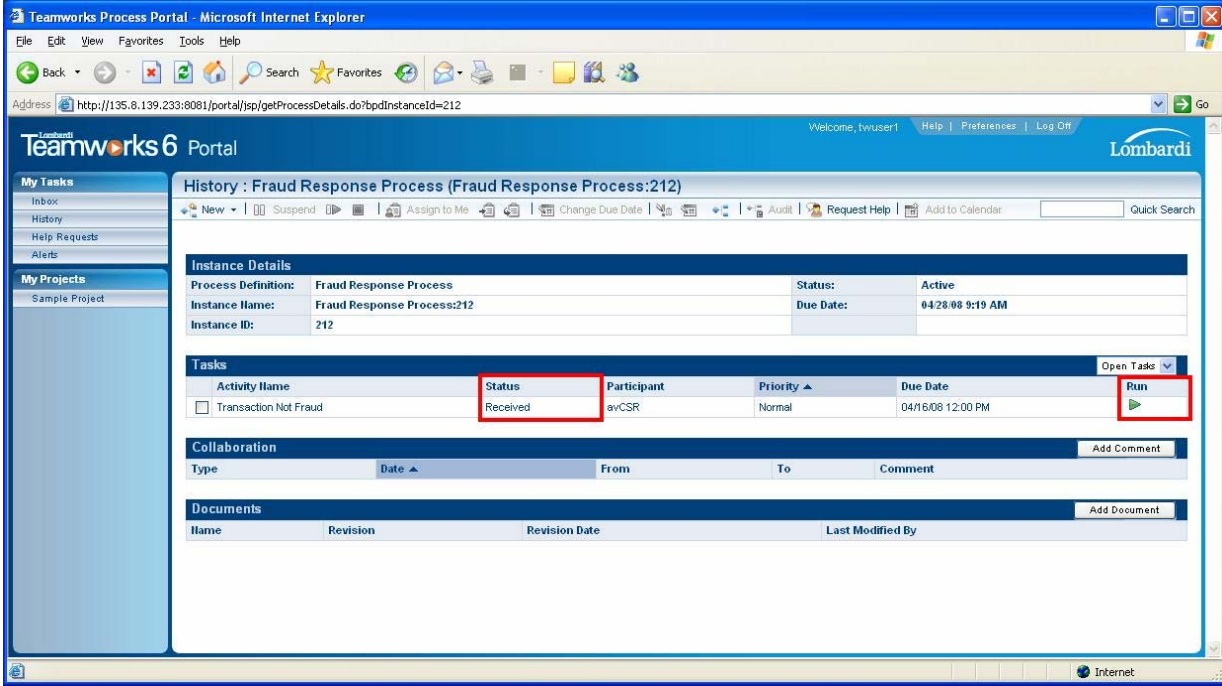
Type	Date	From	To	Comment
Add Comment				
- Documents:**

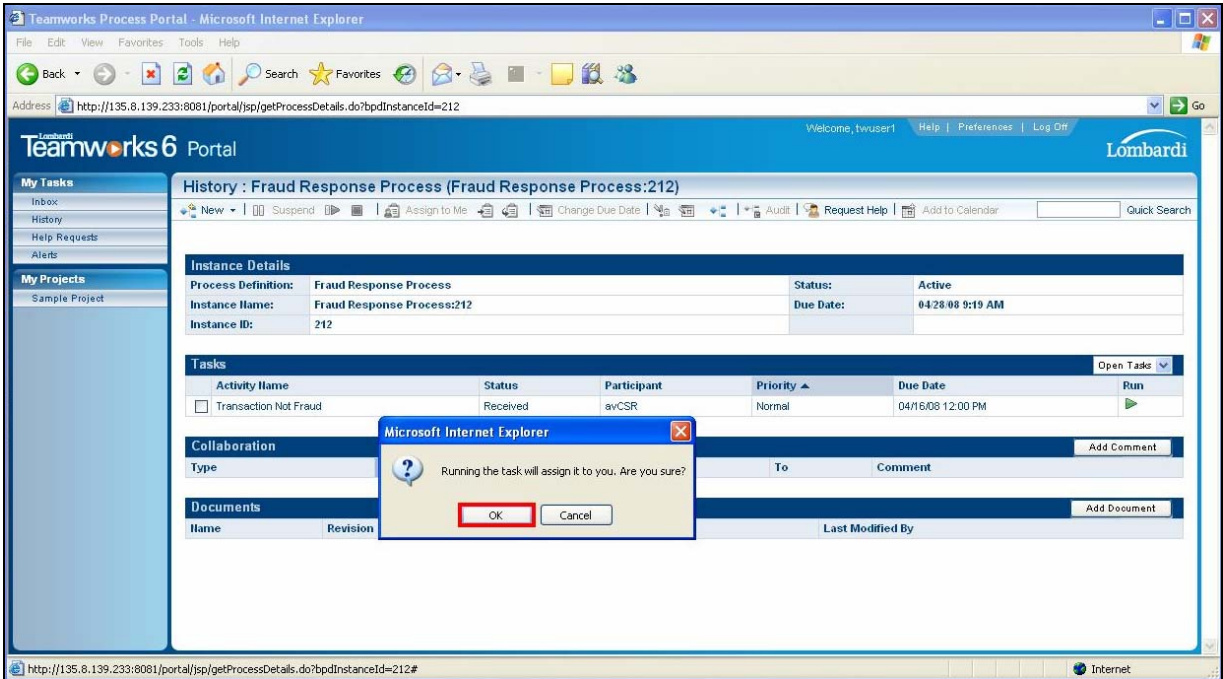
Name	Revision	Revision Date	Last Modified By
Add Document			

The "Status" field in the Tasks table is highlighted with a red border and contains the value "New".

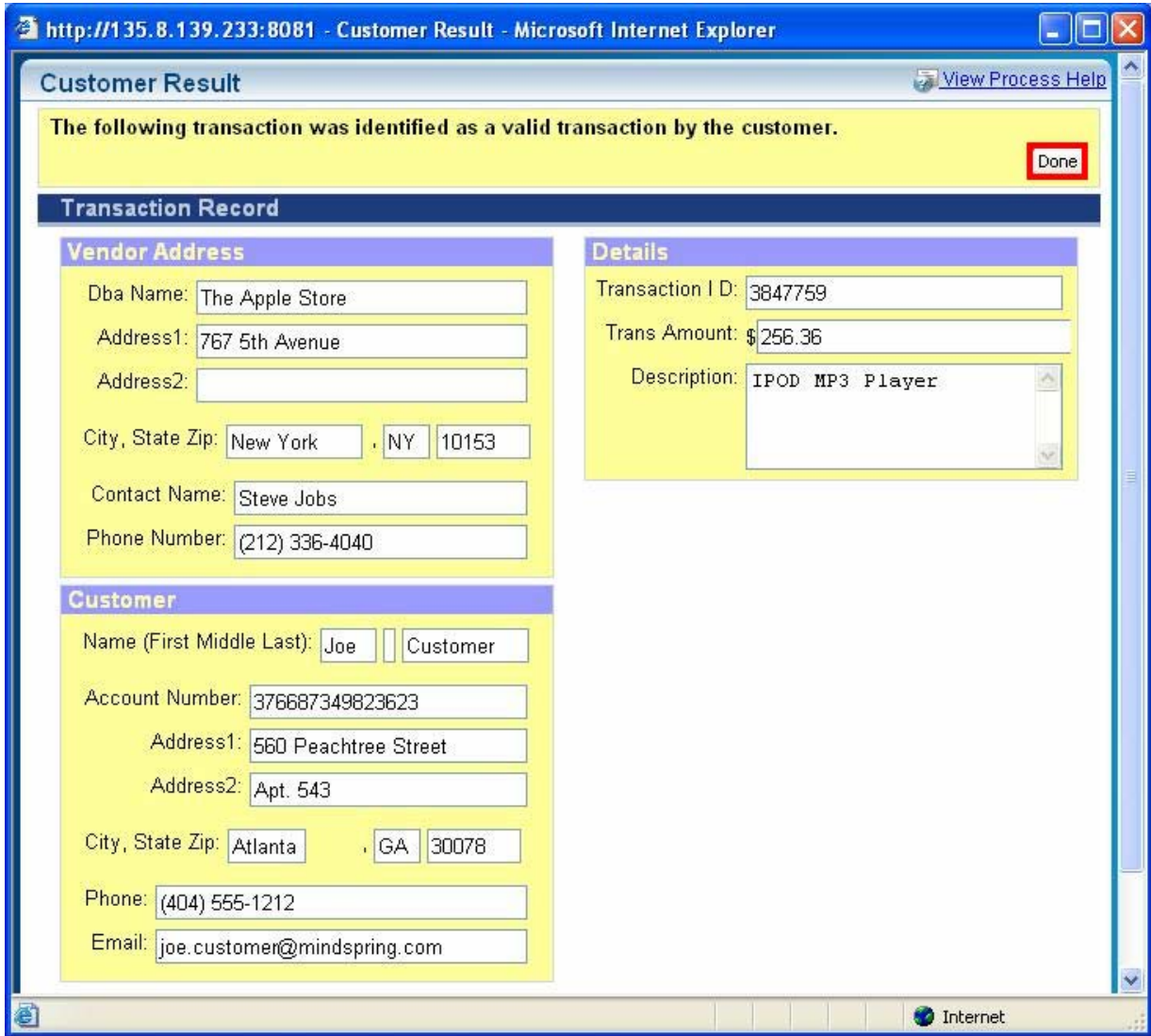
Step	Description
5.11	<p>Verify the following:</p> <ul style="list-style-type: none"> <li>• The telephone associated with the user account on Avaya CPM (see <b>Step 3.1.1</b>) rings.</li> <li>• Log in to the user account on Avaya CPM (see <b>Step 3.1.1</b>) and verify the <b>Inbox</b> screen reflects the transaction for the <b>Fraud Response Process</b> submitted in <b>Step 5.8</b>. <ul style="list-style-type: none"> <li>○ Click <b>Fraud Alert</b> in the <b>Subject</b> column.</li> </ul> </li> </ul> 

Step	Description
5.12	<p>From the <b>Request</b> screen, respond to the <b>Fraud Alert</b> and click <b>Submit</b>.</p> <p><i>Note: For these Application Notes, the response was provided via the web interface. The response could also have been provided via the telephone.</i></p> 

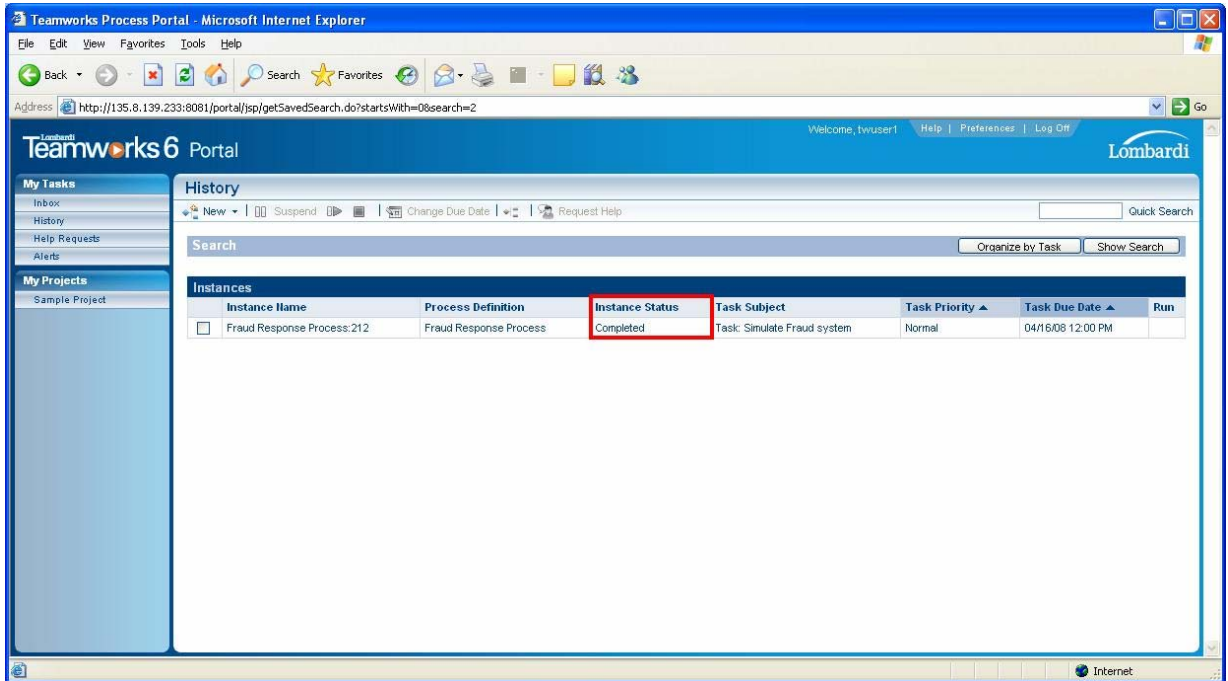
Step	Description
5.13	<p>Following the response from the user on Avaya CPM, verify the <b>Status</b> field is updated to <b>Received</b>. To complete this transaction, click  in the <b>Run</b> column.</p>  <p>The screenshot displays the Teamworks 6 Portal interface. The main content area shows the 'History: Fraud Response Process (Fraud Response Process:212)'. Under the 'Instance Details' section, the 'Status' field is highlighted in red and contains the value 'Received'. The 'Run' button is also highlighted in red. The 'Tasks' section shows a table with columns: Activity Name, Status, Participant, Priority, Due Date, and Run. The first row shows 'Transaction Not Fraud' with Status 'Received', Participant 'avCSR', Priority 'Normal', and Due Date '04/16/08 12:00 PM'. The 'Run' button is located in the 'Run' column of this row.</p>

Step	Description
5.14	<p>From the pop-up window, click <b>OK</b>.</p> 



Step	Description
5.15	<p>To confirm the results of this transaction, click <b>Done</b>.</p> 

Step	Description
5.16	Verify the <b>Status</b> field is updated to <b>Completed</b> .

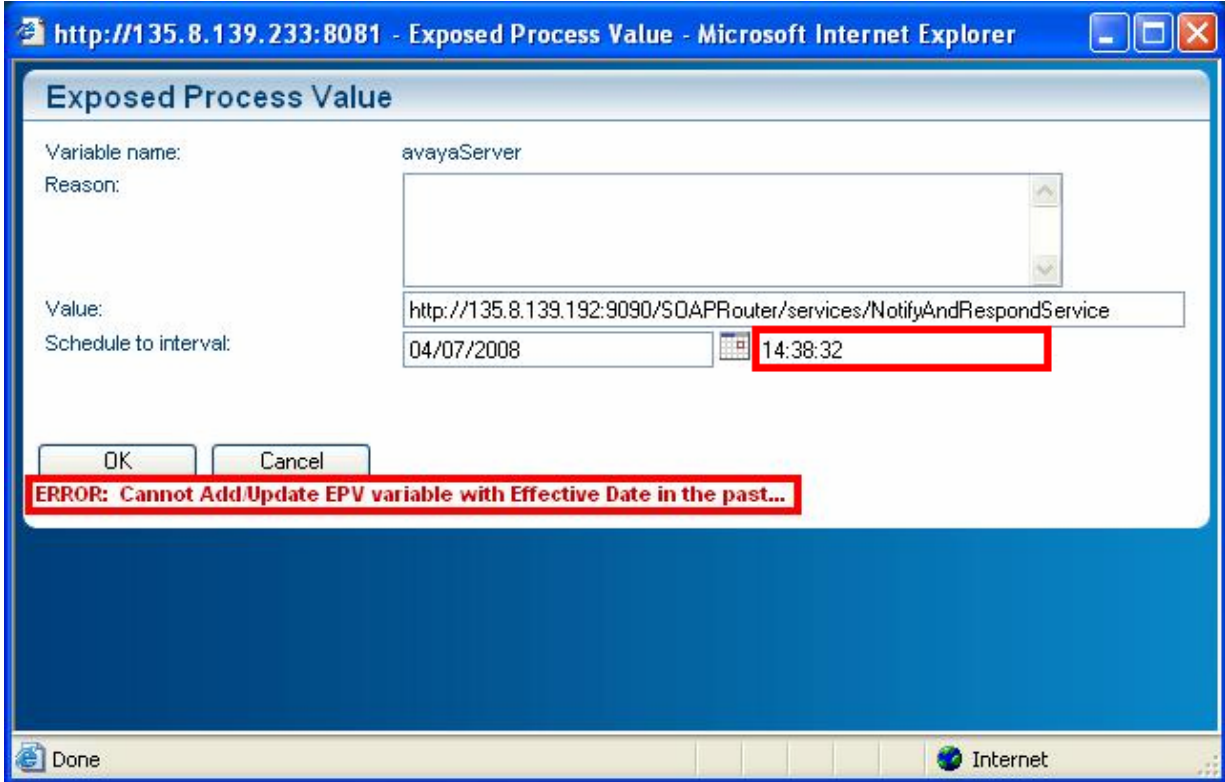


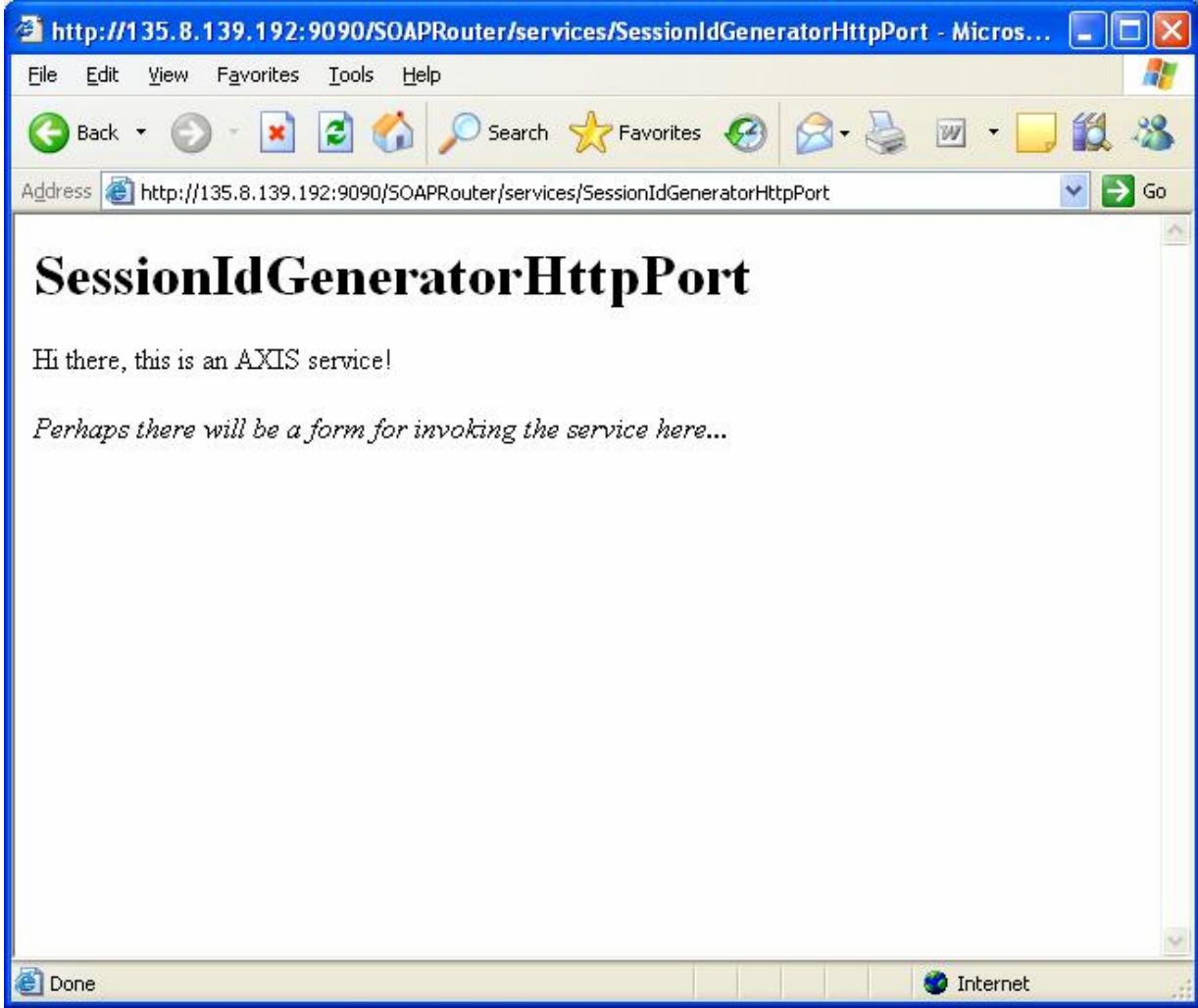
The screenshot displays the Teamworks 6 Portal within a Microsoft Internet Explorer browser window. The address bar shows the URL: `http://135.8.139.233:8081/portal/jsp/getSavedSearch.do?startsWith=0&search=2`. The page header includes the Lombardi logo and a welcome message for 'twuser1'. The left sidebar contains navigation links for 'My Tasks' (Inbox, History, Help Requests, Alerts) and 'My Projects' (Sample Project). The main content area is titled 'History' and features a search bar and a table of task instances. The table has columns for Instance Name, Process Definition, Instance Status, Task Subject, Task Priority, Task Due Date, and Run. A single instance is listed with the status 'Completed', which is highlighted by a red rectangle.

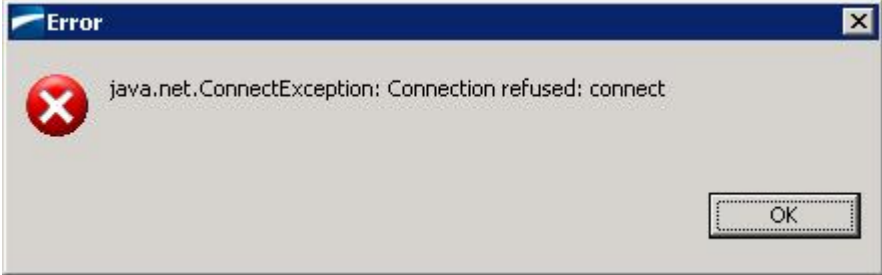
Instance Name	Process Definition	Instance Status	Task Subject	Task Priority	Task Due Date	Run
<input type="checkbox"/> Fraud Response Process:212	Fraud Response Process	Completed	Task: Simulate Fraud system	Normal	04/16/08 12:00 PM	


## 6. Troubleshooting

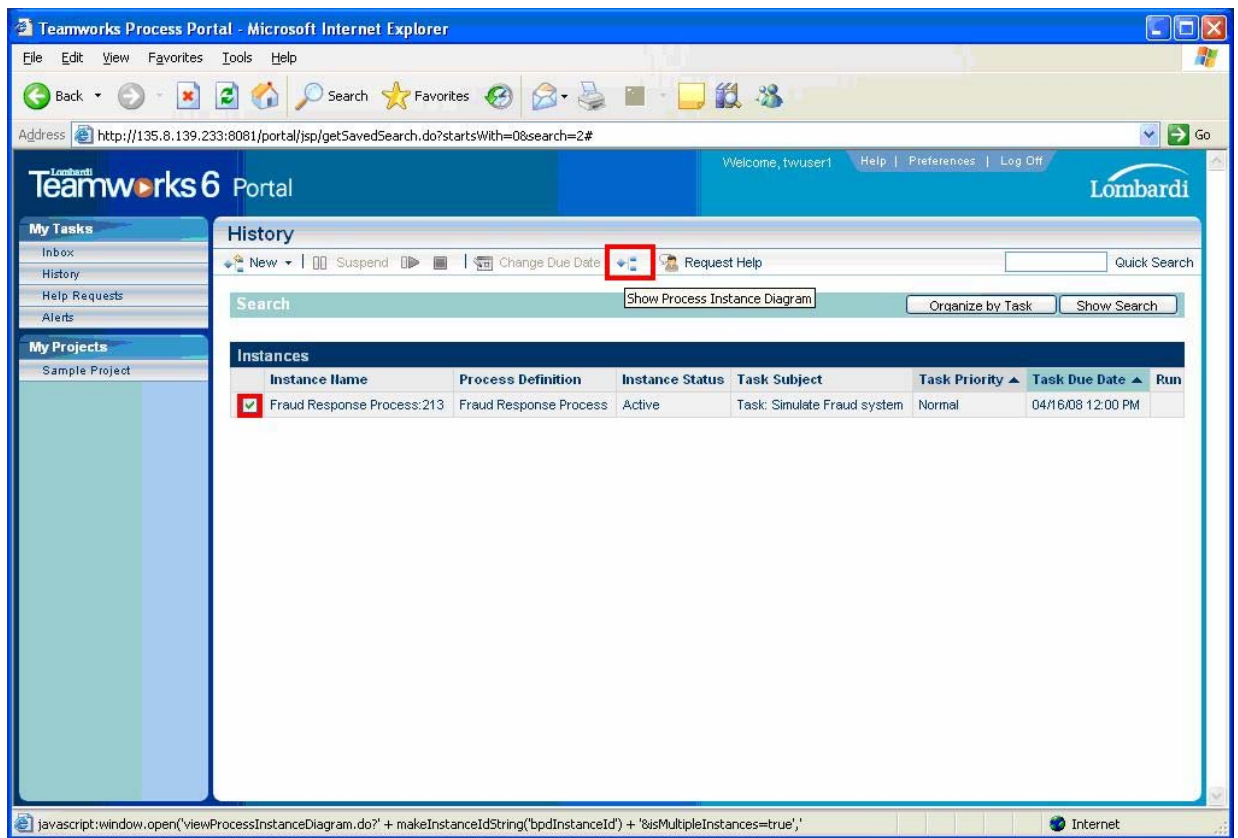
The following steps were used to troubleshoot the administrative steps presented in these Application Notes and are applicable for similar configurations in the field.

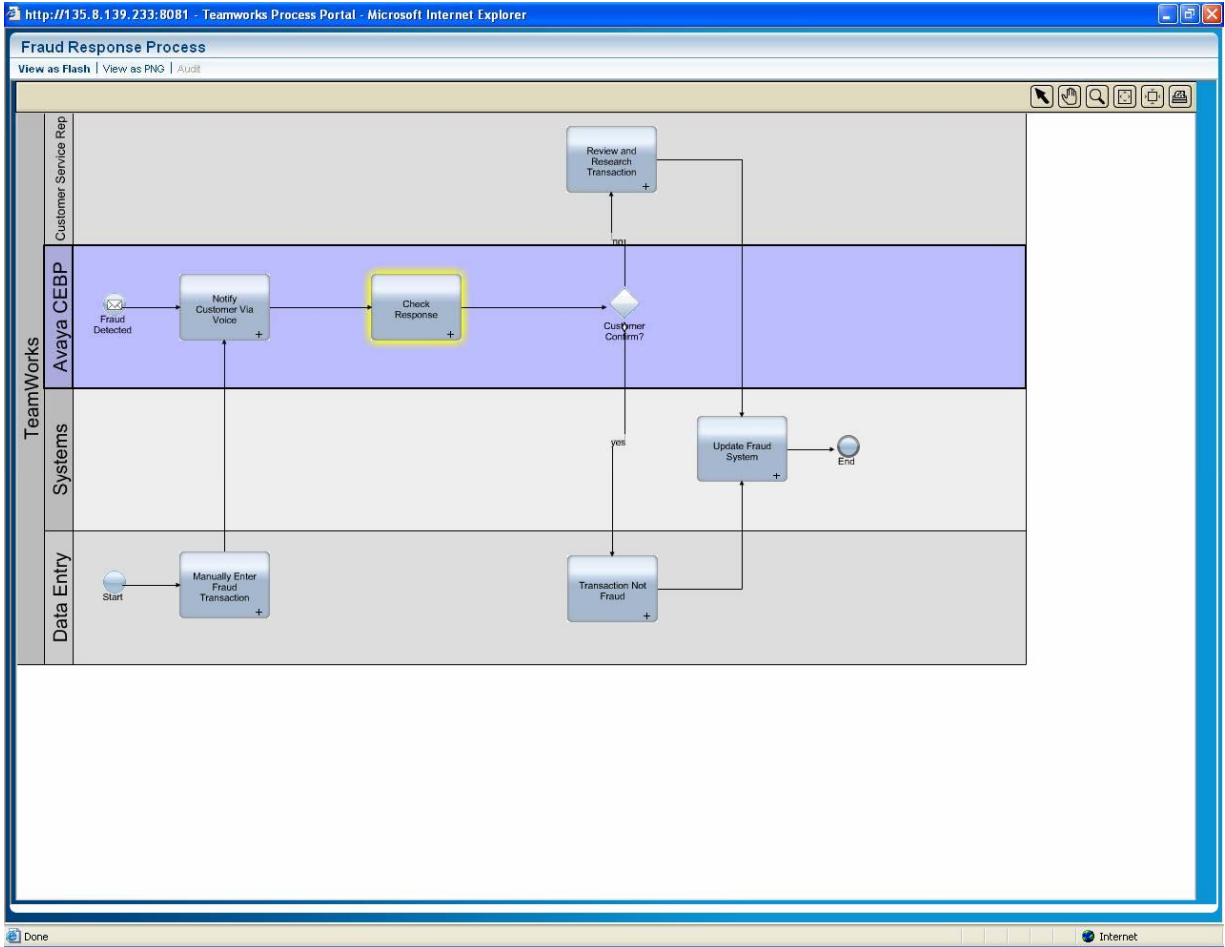
Step	Description
6.1	<p>This error was the due to attempting to schedule an update to an EPV at a time less than or equal to the current time. Correct this error by entering a time greater than the current time.</p> 

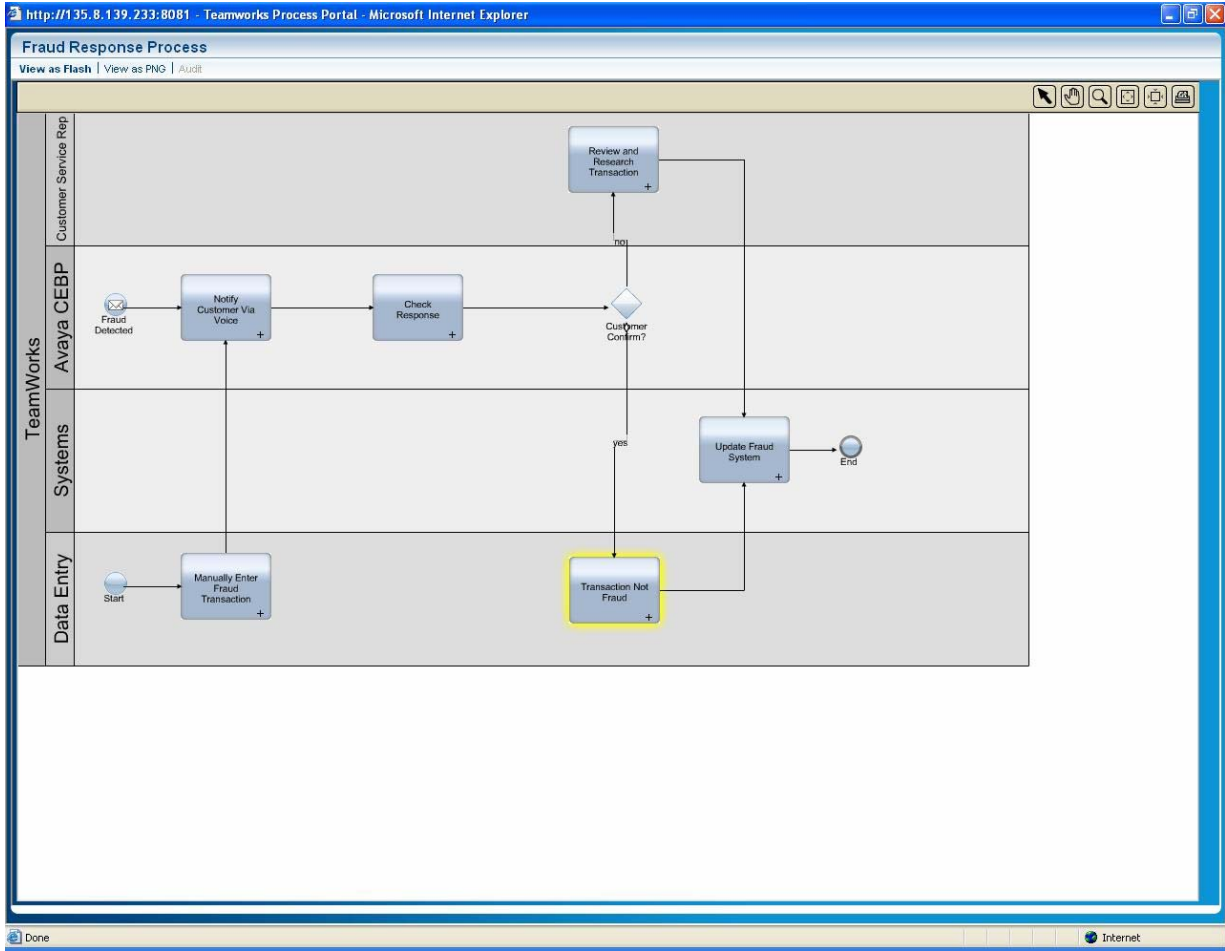
Step	Description
6.2	<p>If the connectivity test between Avaya CPM and Lombardi Teamworks fails in <b>Step 5.2</b>, verify port 9090 is open on Avaya CPM as follows:</p> <ul style="list-style-type: none"> <li>• Enter <b>http://&lt;Avaya CPM IP Address or FQDN&gt;:9090/SOAPRouter/services/SessionIdGeneratorHttpPort</b> into a web browser's URL bar.</li> <li>• Verify the response as displayed below.</li> </ul> 

Step	Description
6.3	<p>If the following error message is returned from the connectivity test between Avaya CPM and Lombardi Teamworks in <b>Step 5.1</b>, verify the <b>Endpoint Address URL</b> entry corresponds to the IP address or FQDN of Avaya CPM (see configuration in <b>Step 4.3.5</b>).</p> 

Step	Description
6.4	<p>Verify the <b>Process Instance Diagram</b> for the corresponding <b>Fraud Response Process</b> as follows:</p> <ul style="list-style-type: none"> <li>• Verify that the process and performance servers are started (see <b>Appendix C</b>).</li> <li>• Open a standard web browser and enter <b>http://&lt;Lombardi Teamworks IP Address or FQDN&gt;:8081/portal</b> into the web browser's URL bar.</li> <li>• Log in to the Process Server Console with user privileges, e.g., select a user account created in <b>Steps 4.4.9 - 4.4.10</b>.</li> <li>• Click <b>History</b> under <b>My Tasks</b>.</li> <li>• Select an entry for a <b>Fraud Response Process &lt;Number&gt;</b>.</li> <li>• Click .</li> </ul>

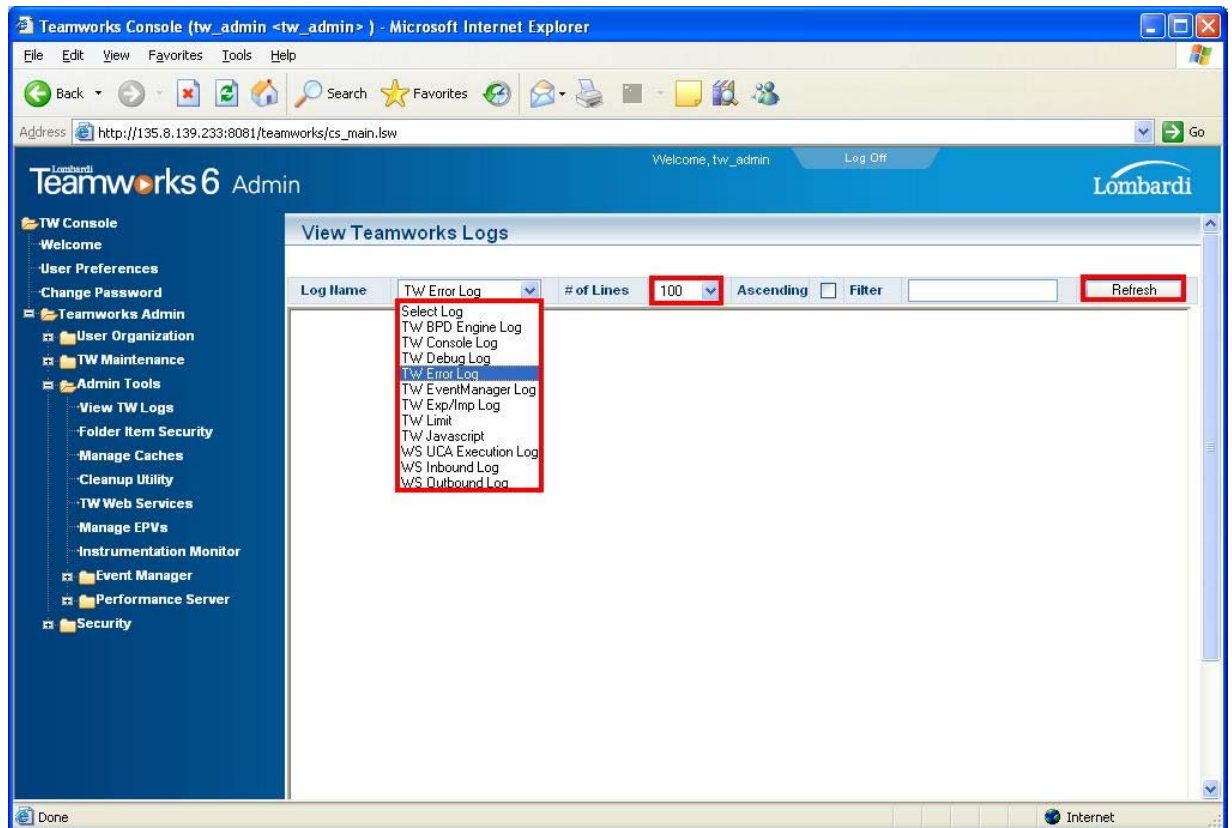


Step	Description
6.5	<p>From the pop-up window, verify the state of the <b>Fraud Response Process</b>. For this transaction, the state is <b>Check Response</b>, which corresponds to a <b>Status</b> field returning <b>New</b> (see <b>Step 5.10</b>).</p>  <pre> graph TD     subgraph Data_Entry [Data Entry]         Start((Start)) --&gt; MEF[Manually Enter Fraud Transaction]     end     subgraph Systems [Systems]         UFS[Update Fraud System] --&gt; End((End))         TNF[Transaction Not Fraud] --&gt; UFS     end     subgraph Avaya_CEBP [Avaya CEBP]         ND[Fraud Detected] --&gt; NCV[Notify Customer Via Voice]         NCV --&gt; CR[Check Response]         CR --&gt; CC{Customer Confirm?}     end     subgraph Customer_Service_Rep [Customer Service Rep]         RRT[Review and Research Transaction]     end      CC -- yes --&gt; UFS     CC -- no --&gt; RRT     RRT --&gt; TNF   </pre>

Step	Description
6.6	<p>Following input from a user on Avaya CPM, a <b>Fraud Response Process</b> may have the state <b>Transaction Not Fraud</b>. This corresponds to a <b>Status</b> field returning <b>Received</b> (see Step 5.13).</p>  <p>The screenshot displays the 'Fraud Response Process' within the Teamworks Process Portal. The process is organized into four swimlanes: Data Entry, Systems, Avaya CEBP, and Customer Service Rep. The flowchart begins with a 'Start' node in the Data Entry lane, leading to 'Manually Enter Fraud Transaction'. This leads to 'Notify Customer Via Voice' in the Avaya CEBP lane, which then leads to 'Check Response' in the same lane. A decision diamond 'Customer Confirm?' follows. If 'yes', the flow goes to 'Update Fraud System' in the Systems lane, leading to 'End'. If 'no', the flow goes to 'Review and Research Transaction' in the Customer Service Rep lane. A 'Transaction Not Fraud' node, highlighted with a yellow border, is located in the Data Entry lane and receives input from the 'no' path of the decision diamond. The browser window title is 'http://135.8.139.233:8081 - Teamworks Process Portal - Microsoft Internet Explorer'.</p>



Step	Description
6.7	<p>View log files on Lombardi Teamworks:</p> <ul style="list-style-type: none"> <li>• Verify that the process and performance servers are started (see <b>Appendix C</b>).</li> <li>• Open a standard web browser and enter <b>http://&lt;Lombardi Teamworks IP Address or FQDN&gt;:8081/teamworks</b> into the web browser's URL bar.</li> <li>• Log in to the Process Server Console with administrative privileges.</li> <li>• From the Process Server Console, select <b>TW Console → Teamworks Admin → Admin Tools → View TW Logs</b>.</li> <li>• Select the appropriate log from the drop-down list for the <b>Log Name</b> field.</li> <li>• Select the appropriate number of lines to view from the drop-down list for the <b># of Lines</b> field.</li> <li>• Click <b>Refresh</b>.</li> </ul>



## 7. Conclusion

These Application Notes present a solution comprised of Lombardi Teamworks with Avaya Communications Process Manager (CPM) to provide a solution for Avaya Communications Enabled Business Processes (CEBP). For these Application Notes, a sample Avaya CEBP solution for processing fraudulent credit card transactions is presented.

## 8. Additional References

Avaya references are available at <http://support.avaya.com>.

- [1] Communications Process Manager Installation and Configuration Guide, Issue 3, Doc ID 04-601158, December 2007.
- [2] Communications Process Manager Administration and Maintenance Guide, Issue 5, Doc ID 04-601159, December 2007.

Lombardi Teamworks references are available at <http://support.lombardi.com>

- [3] Teamworks 6 Enterprise SP1 Express Installation and Configuration Guide, September 28, 2007.
- [4] Teamworks 6 Enterprise SP1 Installation and Configuration Guide for JBoss with Windows, September 28, 2007.
- [5] Teamworks 6 Enterprise SP1 Administration Guide, September 28, 2007.

## 9. Appendix

### Appendix A - Oracle Enterprise Manager 10g Configuration

Step	Description																																																																																																			
A1	<p>For this sample configuration, it is assumed that the Oracle Enterprise 10g Release 2 software has been installed and the <b>Tablespaces</b> for the Lombardi Teamworks Process and Performance servers have been defined.</p> <div><div>Oracle Enterprise Manager (SYS) - Tablespaces - Microsoft Internet Explorer</div><div><div>File Edit View Favorites Tools Help</div><div><div>Back</div><div>Forward</div><div>Stop</div><div>Home</div><div>Search</div><div>Favorites</div><div>Feeds</div><div>Print</div><div>Internet Options</div><div>Go</div><div>Links</div></div><div>Address http://lombardi:1158/em/console/database/databaseObjectsSearch?event=search&amp;otype=TABLESPACE&amp;target=orcl&amp;type=oracle_database</div></div><div><div>ORACLE Enterprise Manager 10g</div><div>Database Control</div><div>Setup Preferences Help Logout</div><div>Database</div></div><div><div>Database Instance: orcl</div><div>&gt; Tablespaces</div><div>Logged in As SYS</div></div><div><div>Tablespaces</div><div>Object Type Tablespace</div></div><div><div>Search</div><div>Select an object type and optionally enter an object name to filter the data that is displayed in your results set.</div><div>Object Name</div><div>Go</div><div>By default, the search returns all uppercase matches beginning with the string you entered. To run an exact or case-sensitive match, double quote the search string. You can use the wildcard symbol (%) in a double quoted string.</div></div><div><div>Selection Mode Single</div><div>Create</div></div><div><div>Edit View Delete Actions Add Datafile Go</div><table><thead><tr><th>Select</th><th>Name</th><th>Size (MB)</th><th>Used (MB)</th><th>Used (%)</th><th>Free (MB)</th><th>Status</th><th>Datafiles</th><th>Type</th><th>Extent Management</th><th>Segment Management</th></tr></thead><tbody><tr><td><input checked="" type="radio"/></td><td>EXAMPLE</td><td>128.8</td><td>77.4</td><td>60.1</td><td>51.4</td><td>✓</td><td>1</td><td>PERMANENT</td><td>LOCAL</td><td>AUTO</td></tr><tr><td><input type="radio"/></td><td>SYSAUX</td><td>370.0</td><td>341.5</td><td>92.3</td><td>28.5</td><td>✓</td><td>1</td><td>PERMANENT</td><td>LOCAL</td><td>AUTO</td></tr><tr><td><input type="radio"/></td><td>SYSTEM</td><td>490.0</td><td>489.1</td><td>99.8</td><td>0.9</td><td>✓</td><td>1</td><td>PERMANENT</td><td>LOCAL</td><td>MANUAL</td></tr><tr><td><input type="radio"/></td><td>TEMP</td><td>20.0</td><td>0.0</td><td>0.0</td><td>20.0</td><td>✓</td><td>1</td><td>TEMPORARY</td><td>LOCAL</td><td>MANUAL</td></tr><tr><td><input type="radio"/></td><td>TWPERFDB</td><td>250.0</td><td>26.8</td><td>10.7</td><td>223.2</td><td>✓</td><td>1</td><td>PERMANENT</td><td>LOCAL</td><td>AUTO</td></tr><tr><td><input type="radio"/></td><td>TWPROCDB</td><td>500.0</td><td>44.6</td><td>8.9</td><td>455.4</td><td>✓</td><td>1</td><td>PERMANENT</td><td>LOCAL</td><td>AUTO</td></tr><tr><td><input type="radio"/></td><td>UNDOTBS1</td><td>115.0</td><td>1.1</td><td>0.9</td><td>113.9</td><td>✓</td><td>1</td><td>UNDO</td><td>LOCAL</td><td>MANUAL</td></tr><tr><td><input type="radio"/></td><td>USERS</td><td>5.0</td><td>3.2</td><td>65.0</td><td>1.8</td><td>✓</td><td>1</td><td>PERMANENT</td><td>LOCAL</td><td>AUTO</td></tr></tbody></table><div><div>Total Size (MB) 1,878.8</div><div>Total Used (MB) 983.7</div><div>Total Free (MB) 895.1</div><div>Online Offline Read Only</div></div></div><div><div>Database Setup Preferences Help Logout</div><div>Copyright © 1996, 2005, Oracle. All rights reserved.</div><div>About Oracle Enterprise Manager 10g Database Control</div></div></div>	Select	Name	Size (MB)	Used (MB)	Used (%)	Free (MB)	Status	Datafiles	Type	Extent Management	Segment Management	<input checked="" type="radio"/>	EXAMPLE	128.8	77.4	60.1	51.4	✓	1	PERMANENT	LOCAL	AUTO	<input type="radio"/>	SYSAUX	370.0	341.5	92.3	28.5	✓	1	PERMANENT	LOCAL	AUTO	<input type="radio"/>	SYSTEM	490.0	489.1	99.8	0.9	✓	1	PERMANENT	LOCAL	MANUAL	<input type="radio"/>	TEMP	20.0	0.0	0.0	20.0	✓	1	TEMPORARY	LOCAL	MANUAL	<input type="radio"/>	TWPERFDB	250.0	26.8	10.7	223.2	✓	1	PERMANENT	LOCAL	AUTO	<input type="radio"/>	TWPROCDB	500.0	44.6	8.9	455.4	✓	1	PERMANENT	LOCAL	AUTO	<input type="radio"/>	UNDOTBS1	115.0	1.1	0.9	113.9	✓	1	UNDO	LOCAL	MANUAL	<input type="radio"/>	USERS	5.0	3.2	65.0	1.8	✓	1	PERMANENT	LOCAL	AUTO
Select	Name	Size (MB)	Used (MB)	Used (%)	Free (MB)	Status	Datafiles	Type	Extent Management	Segment Management																																																																																										
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<input type="radio"/>	TWPERFDB	250.0	26.8	10.7	223.2	✓	1	PERMANENT	LOCAL	AUTO																																																																																										
<input type="radio"/>	TWPROCDB	500.0	44.6	8.9	455.4	✓	1	PERMANENT	LOCAL	AUTO																																																																																										
<input type="radio"/>	UNDOTBS1	115.0	1.1	0.9	113.9	✓	1	UNDO	LOCAL	MANUAL																																																																																										
<input type="radio"/>	USERS	5.0	3.2	65.0	1.8	✓	1	PERMANENT	LOCAL	AUTO																																																																																										

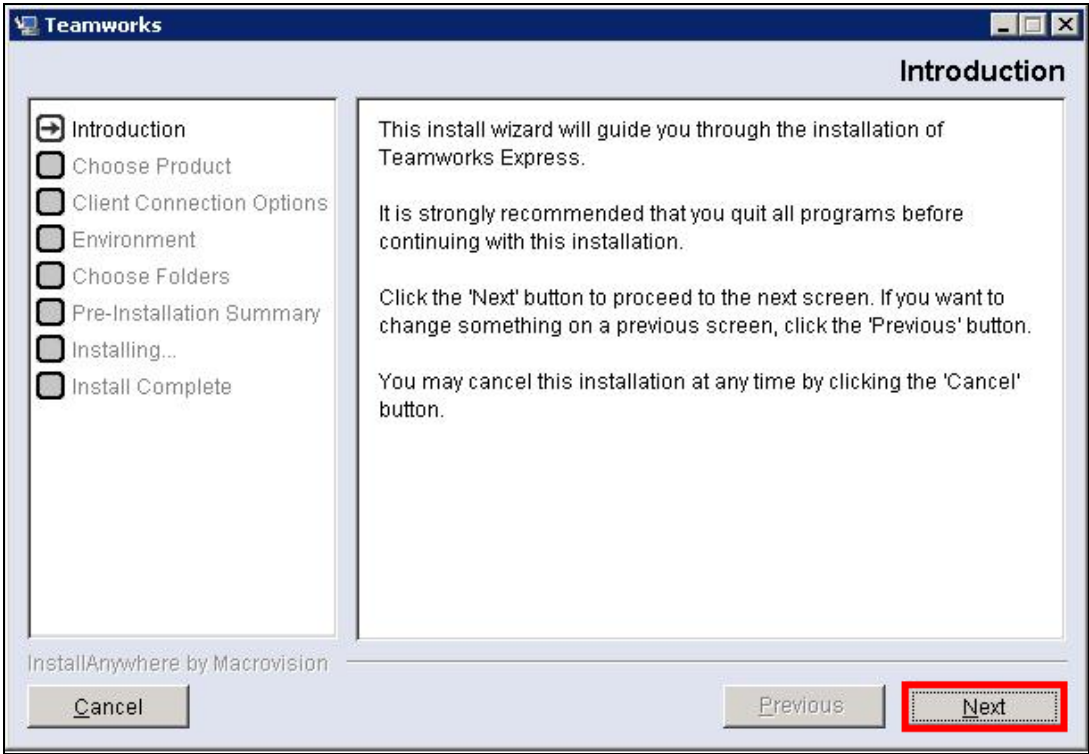
## Appendix B - Lombardi Teamworks Installation

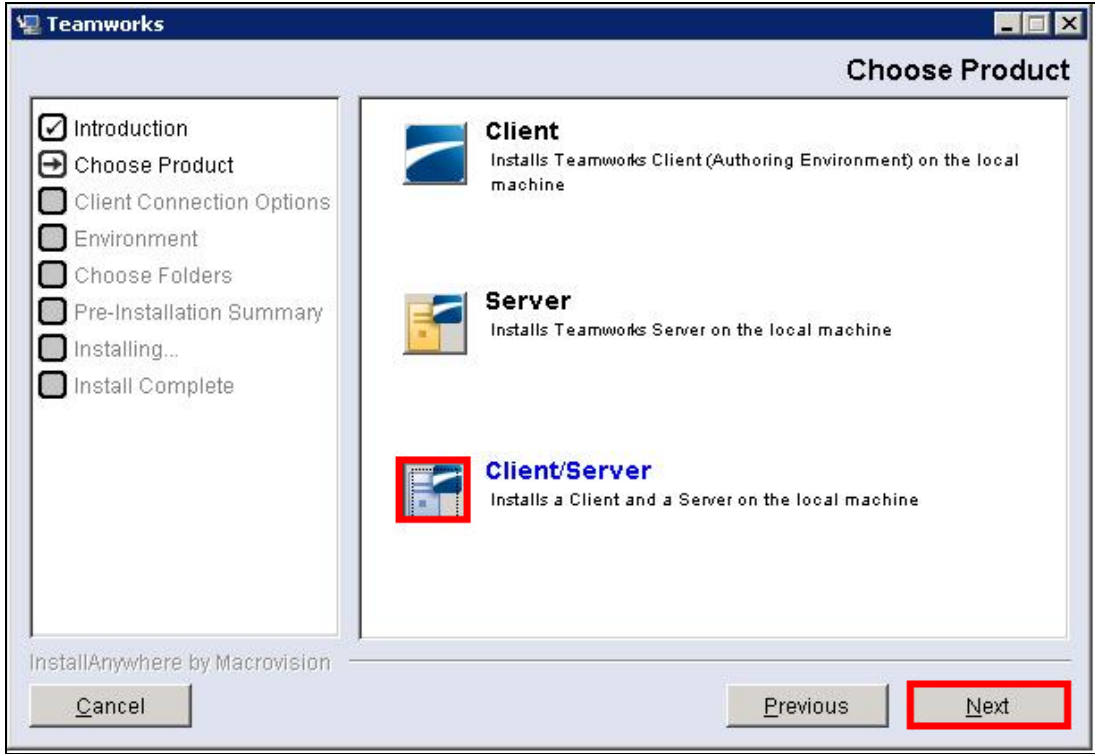
This section describes the steps for installing Lombardi Teamworks on a Windows based PC. The configuration described in this section assumes the software requirements to support Lombardi Teamworks are satisfied. Refer to [3] and [4] for additional information regarding installation requirements for Lombardi Teamworks.

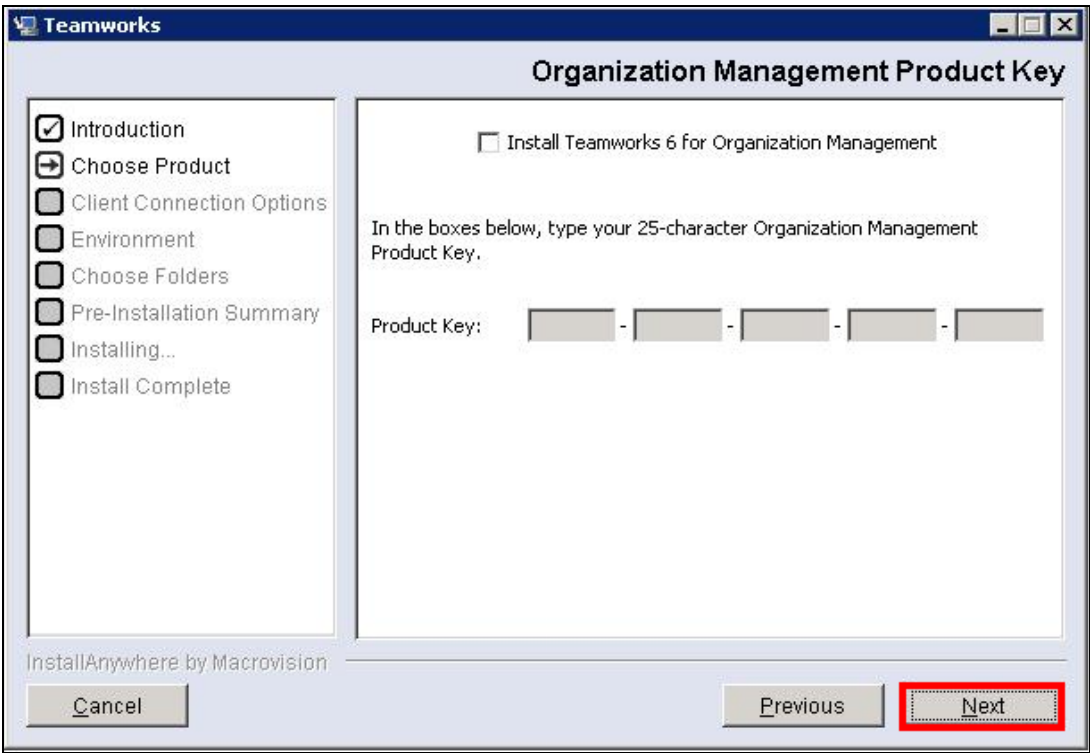
### B1 - Lombardi Teamworks Enterprise Express Installer

The Lombardi Teamworks Enterprise Express Installer enables the Lombardi Teamworks Process Server, Performance Server, and Authoring Environment to install on a single machine (Host or Local PC). Optionally, the Authoring Environment and Lombardi Teamworks servers (Process and Performance) can be installed on separate machines. Lombardi Software does not support running Lombardi Teamworks in a production environment that was installed with Lombardi Teamworks Enterprise Express Installer. Lombardi Teamworks Enterprise Installer must be used to set up Lombardi Teamworks in a production environment.

Step	Description
B1.1	<p>Start the Lombardi Teamworks Enterprise Express Installer as follows:</p> <ul style="list-style-type: none"><li>• [Not Shown] Double click on the <i>Teamworks-6-Enterprise-SP1-Express-Installer.exe</i> file.</li><li>• Click <b>Next</b>.</li></ul>



Step	Description
B1.2	<p>From the <b>Choose Product</b> screen, select <b>Client/Server</b> and click <b>Next</b>.</p> <p><i><b>Note:</b> For this sample configuration, the client and server applications were installed on the Local PC hosting Lombardi Teamworks. It is also acceptable to install the client application on a PC other than the one hosting Lombardi Teamworks.</i></p> 

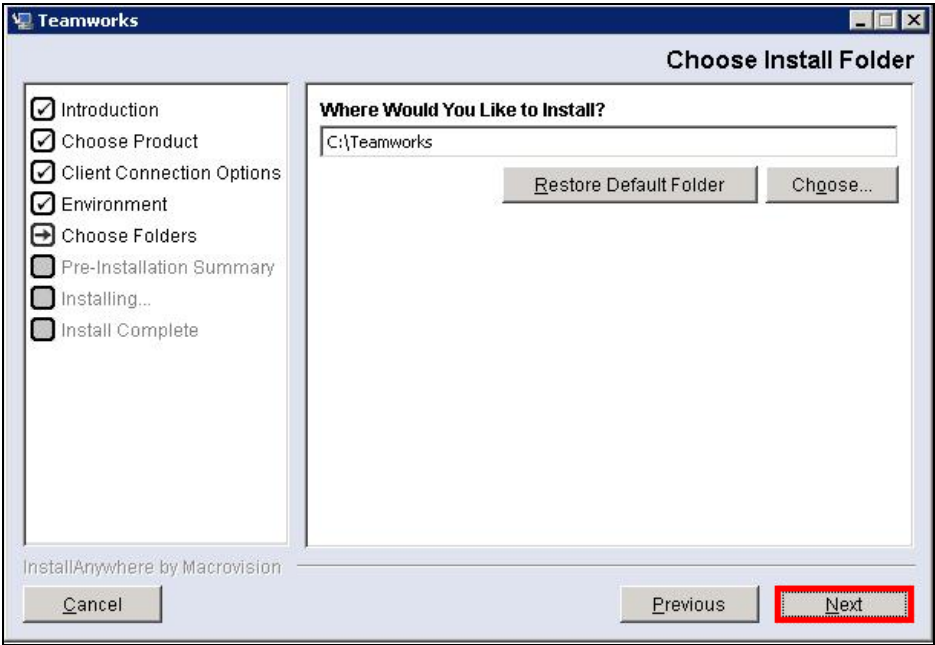
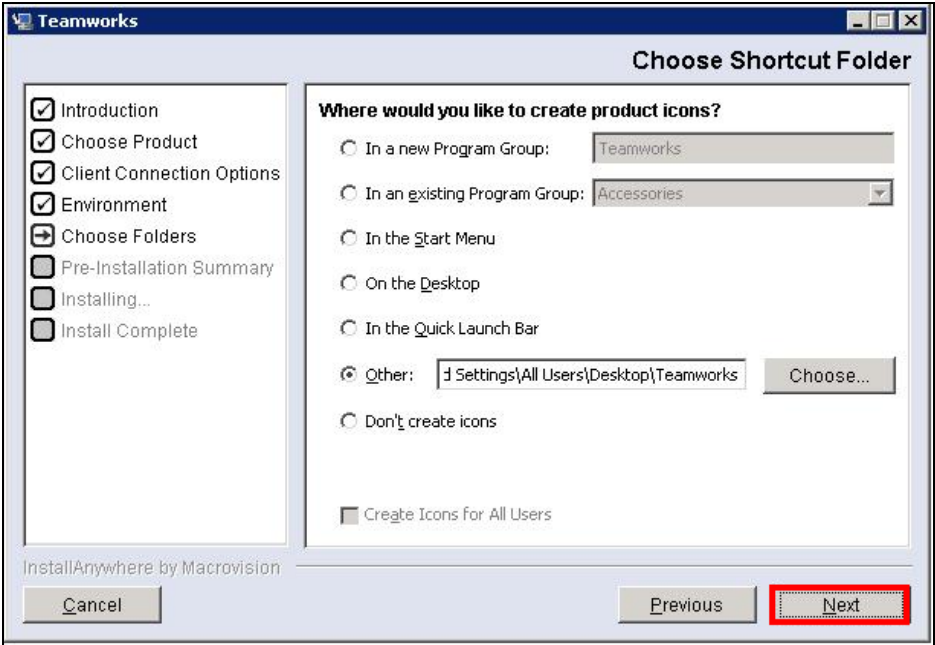
Step	Description
B1.3	<p>From the <b>Organization Management Product Key</b> screen, enter the <b>Product Key</b> and click <b>Next</b>.</p> 

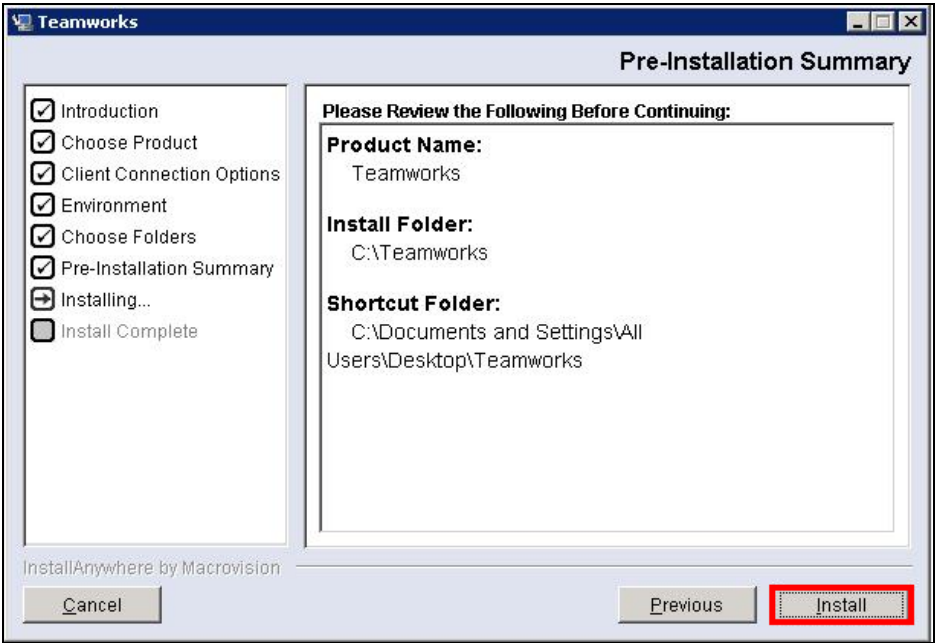
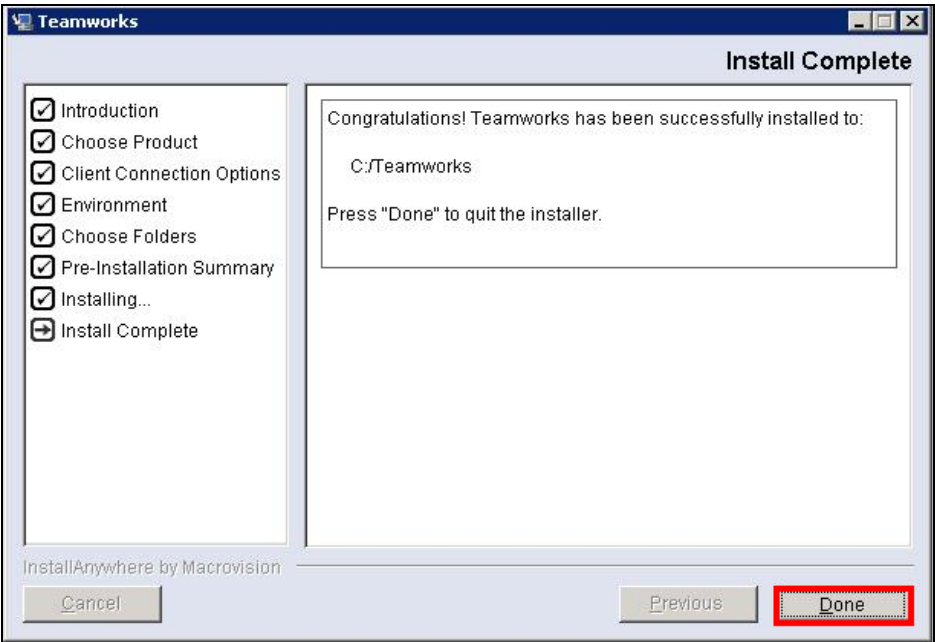
Step	Description
<b>B1.4</b>	<p>From the <b>Process Server Database Parameters</b> screen, configure as follows:</p> <ul style="list-style-type: none"> <li>• Select the appropriate setting from the drop-down list for the <b>Database</b> field.</li> <li>• Enter the name of the Host PC in the <b>Database Host</b> field.</li> <li>• Enter the port that the database listens on in the <b>Database Port</b> field. For Oracle, the database default listener port is <b>1521</b>.</li> <li>• Enter the name of the database that Lombardi Teamworks uses for its Process Server repository in the <b>Database Name</b> field (see <b>Database Instance</b> in <b>Step A1</b>).</li> <li>• Enter the username and password for the Tablespace created for the Process Server in the <b>Database User</b> and <b>Database Password</b> fields respectively (see <b>Step A1</b>).</li> <li>• To verify the provisioning in this step, click <b>Test Connection</b>. If the connection to the database is successful, a pop-up window will provide confirmation. Click <b>OK</b>.</li> </ul> <div data-bbox="703 716 1101 888" data-label="Image"> </div> <ul style="list-style-type: none"> <li>• Click <b>Next</b>.</li> </ul> <div data-bbox="360 999 1443 1745" data-label="Image"> </div>



Step	Description
B1.5	<p>From the <b>Performance Server Database Parameters</b> screen, configure as follows:</p> <ul style="list-style-type: none"> <li>• Select the appropriate setting from the drop-down list for the <b>Database</b> field.</li> <li>• Enter the name of the Host PC in the <b>Database Host</b> field.</li> <li>• Enter the port that the database listens on in the <b>Database Port</b> field. For Oracle, the database default listener port is <b>1521</b>.</li> <li>• Enter the name of the database that Lombardi Teamworks uses for its Performance Server repository in the <b>Database Name</b> field (see <b>Database Instance</b> in <b>Step A1</b>).</li> <li>• Enter the username and password for the Tablespace created for the Performance Server in the <b>Database Name</b> and <b>Database Password</b> fields respectively (see <b>Step A1</b>).</li> <li>• To verify the provisioning in this step, click <b>Test Connection</b>. If the connection to the database is successful, a pop-up window will provide confirmation. Click <b>OK</b>.</li> </ul> <div data-bbox="703 751 1101 924" data-label="Image"> </div> <ul style="list-style-type: none"> <li>• Click <b>Next</b>.</li> </ul> <div data-bbox="360 1035 1438 1778" data-label="Image"> </div>



Step	Description
B1.6	<p>From the <b>Choose Install Folder</b> screen, accept default settings and click <b>Next</b>.</p> 
B1.7	<p>From the <b>Choose Shortcut Folder</b> screen, accept default settings and click <b>Next</b>.</p> 

Step	Description
B1.8	<p>From the <b>Pre-Installation Summary</b> screen, accept default settings and click <b>Install</b>.</p> 
B1.9	<p>From the <b>Install Complete</b> screen, click <b>Done</b>.</p> 

## B2 - Configure Databases

The Lombardi Teamworks Enterprise Express Installer installs scripts that are used to set up the structure, initial data, stored procedures, and indexes for Lombardi Teamworks databases.

Databases for the Process Server and Performance Server should already be configured (see **Appendix A**).

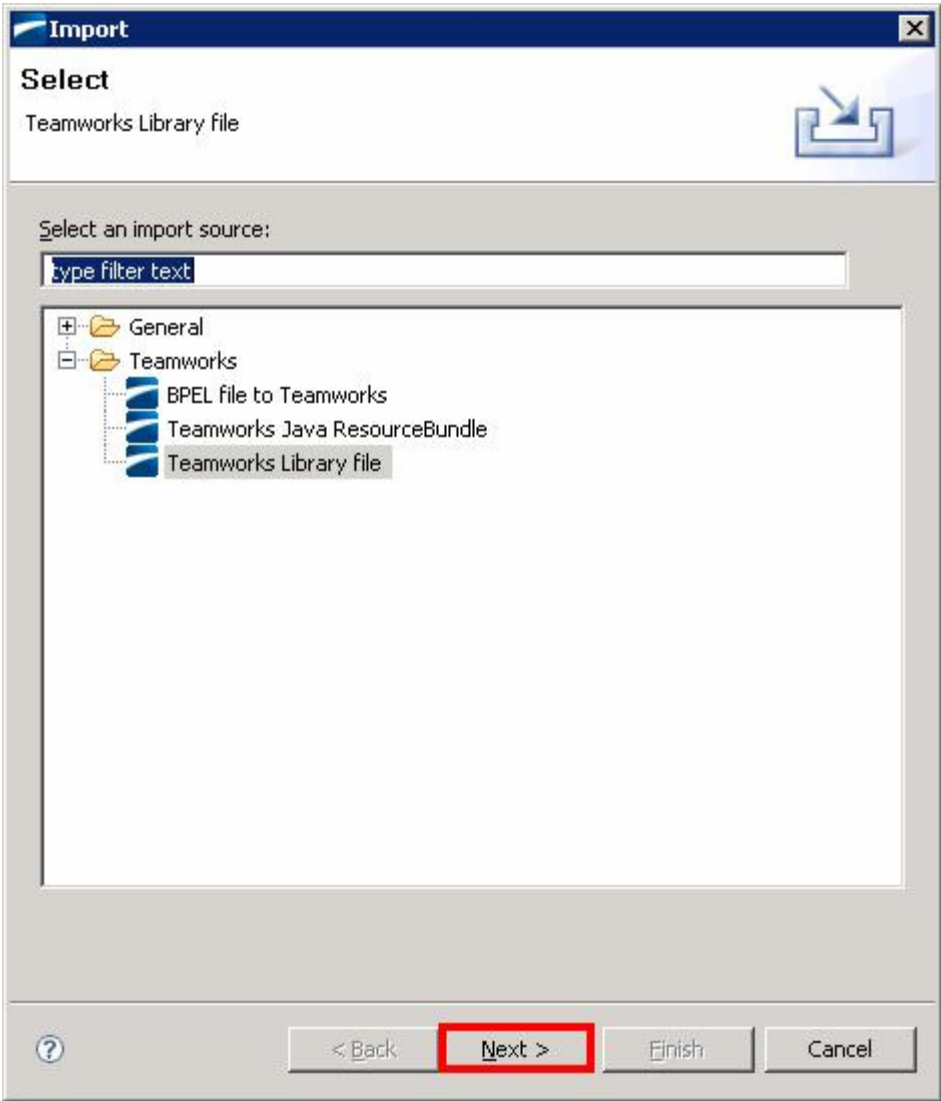
Step	Description
<b>B2.1</b>	Configure the database for the Process Server as follows: <ul style="list-style-type: none"> <li>From the command line (DOS console), navigate to the <b>&lt;Lombardi Teamworks Install-Dir&gt;\process-server\db</b> directory.</li> <li>Enter <b>DBSLoad.bat oracle10g</b> and verify the script was successful by noting the following line in the DOS console: <b>DBStructureLoad completed successfully</b></li> </ul>
	<pre>C:\Teamworks\process-server\db&gt;DBSLoad.bat oracle10g DBStructureLoad starting DBStructureLoad dbdriver      : oracle.jdbc.driver.OracleDriver DBStructureLoad dburl         : jdbc:oracle:thin:@lombardi:1521:orcl DBStructureLoad dbuser        : TWPROCDB DBStructureLoad completed successfully.</pre>
<b>B2.2</b>	From the <b>&lt;Lombardi Teamworks Install-Dir&gt;\process-server\db</b> directory, enter <b>DBSpLoad.bat oracle10g</b> and verify the script was successful by noting the following line in the DOS console: <b>DBStructureLoad completed successfully</b>
	<pre>C:\Teamworks\process-server\db&gt;DBSpLoad.bat oracle10g DBStructureLoad starting DBStructureLoad dbdriver      : oracle.jdbc.driver.OracleDriver DBStructureLoad dburl         : jdbc:oracle:thin:@lombardi:1521:orcl DBStructureLoad dbuser        : TWPROCDB DBStructureLoad completed successfully.</pre>
<b>B2.3</b>	From the <b>&lt;Lombardi Teamworks Install-Dir&gt;\process-server\db</b> directory, enter <b>DBLoad.bat oracle10g</b> and verify the script was successful by noting the following line in the DOS console: <b>DBLoad completed successfully</b>
	<pre>C:\Teamworks\process-server\db&gt;DBLoad.bat oracle10g DBLoad starting DBLoad dbdriver      : oracle.jdbc.driver.OracleDriver DBLoad dburl         : jdbc:oracle:thin:@lombardi:1521:orcl DBLoad dbuser        : TWPROCDB DBLoad completed successfully.</pre>


Step	Description
<b>B2.4</b>	<p>Configure the database for the Performance Server as follows:</p> <ul style="list-style-type: none"> <li>From the command line (DOS console), navigate to the &lt;<b>Lombardi Teamworks Install-Dir</b>&gt;\performance-server\db directory.</li> <li>Enter <b>DBSLoad.bat oracle10g</b> and verify the script was successful by noting the following line in the DOS console: <b>DBStructureLoad completed successfully</b></li> </ul>
	<pre>C:\Teamworks\performance-server\db&gt;DBSLoad.bat oracle10g DBStructureLoad starting DBStructureLoad dbdriver      : oracle.jdbc.driver.OracleDriver DBStructureLoad dburl         : jdbc:oracle:thin:@lombardi:1521:orcl DBStructureLoad dbuser        : TWPERFDB DBStructureLoad completed successfully.</pre>
<b>B2.5</b>	<p>From the &lt;<b>Lombardi Teamworks Install-Dir</b>&gt;\performance-server\db directory, enter <b>DBLoad.bat oracle10g</b> and verify the script was successful by noting the following line in the DOS console: <b>DBLoad completed successfully</b></p>
	<pre>C:\Teamworks\performance-server\db&gt;DBLoad.bat oracle10g DBLoad starting DBLoad dbdriver      : oracle.jdbc.driver.OracleDriver DBLoad dburl         : jdbc:oracle:thin:@lombardi:1521:orcl DBLoad dbuser        : TWPERFDB DBLoad completed successfully.</pre>

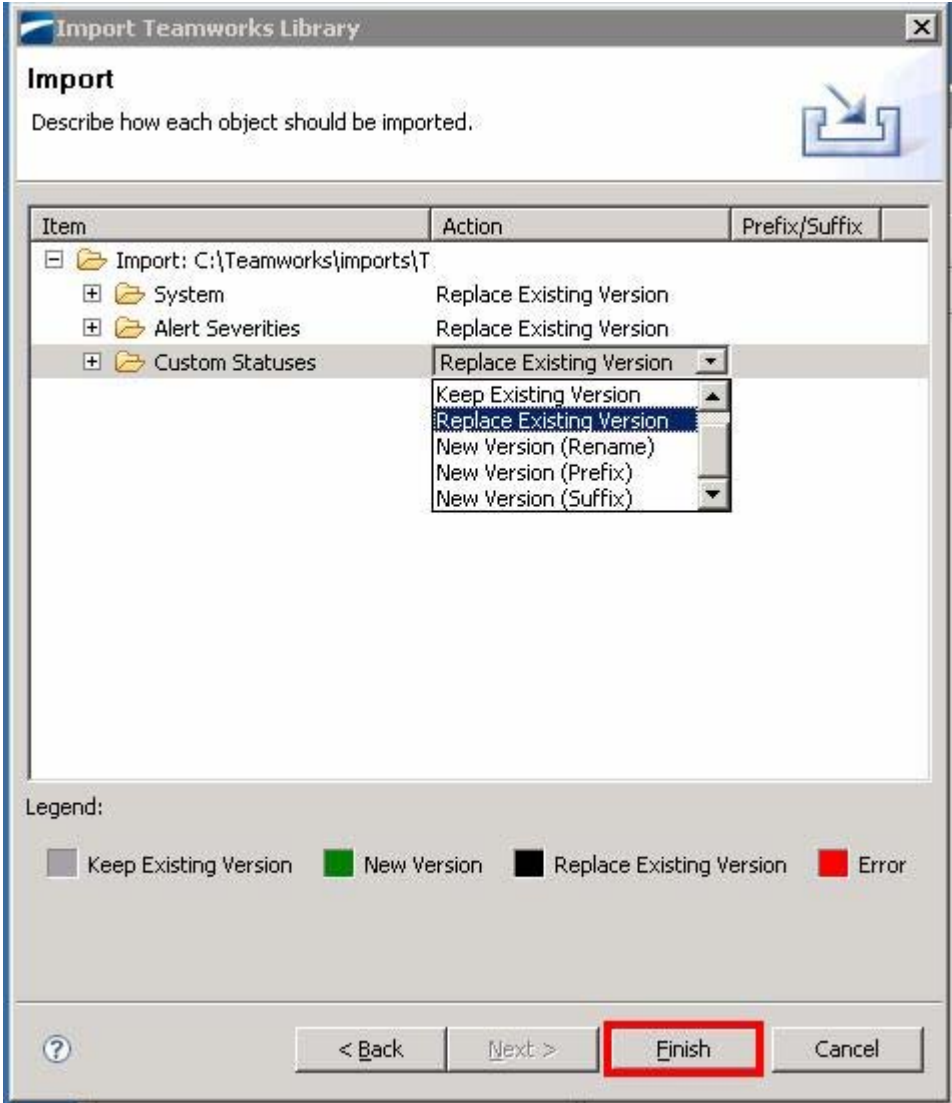
### B3 - Install System Components

There are system components that Lombardi Teamworks needs to run properly. These are default layouts, variable types, and other assets that are required to author a process successfully. This section describes the steps to import and install system components using the graphical user interface provided in the Authoring Environment.

Step	Description
<b>B3.1</b>	<p>Install system components as follows:</p> <ul style="list-style-type: none"><li>• Start the Process Server (see <b>Appendix C</b>).</li><li>• Start the Authoring Environment and then log on to Lombardi Teamworks as an administrative user [1].</li><li>• <b>[Not Shown]</b> <i>From the Authoring Environment main menu, select <b>File</b> ➔ <b>Import</b>.</i></li></ul>

Step	Description
B3.2	<p>From the <b>Import</b> dialog box select the <b>Teamworks Library file</b> option and then click <b>Next</b>.</p> 

Step	Description
B3.3	<p>From the Import dialog box, click <b>Browse</b> and navigate to the <b>TWSystemData.zip</b> file located in the &lt;Lombardi Teamworks Install-Dir&gt;\imports directory and then click <b>Next</b>.</p> 

Step	Description
B3.4	<p>From the Import dialog box, ensure that the <b>Replace Existing Version</b> option is selected for all folders. The Import facility will then overwrite all existing items with new versions, and inserts all new items. Click <b>Finish</b>.</p> 



## Appendix C - Starting Lombardi Teamworks Servers

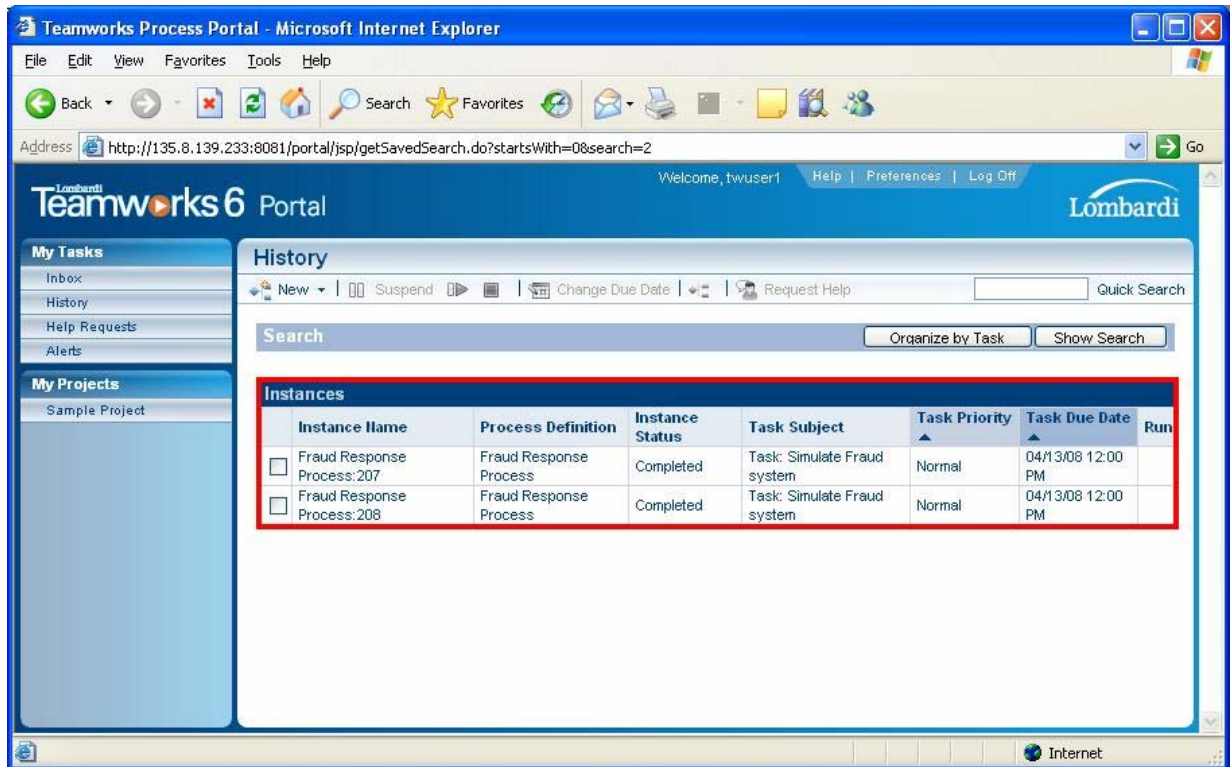
This section describes the steps to start the Lombardi Teamworks Process and Performance Servers.

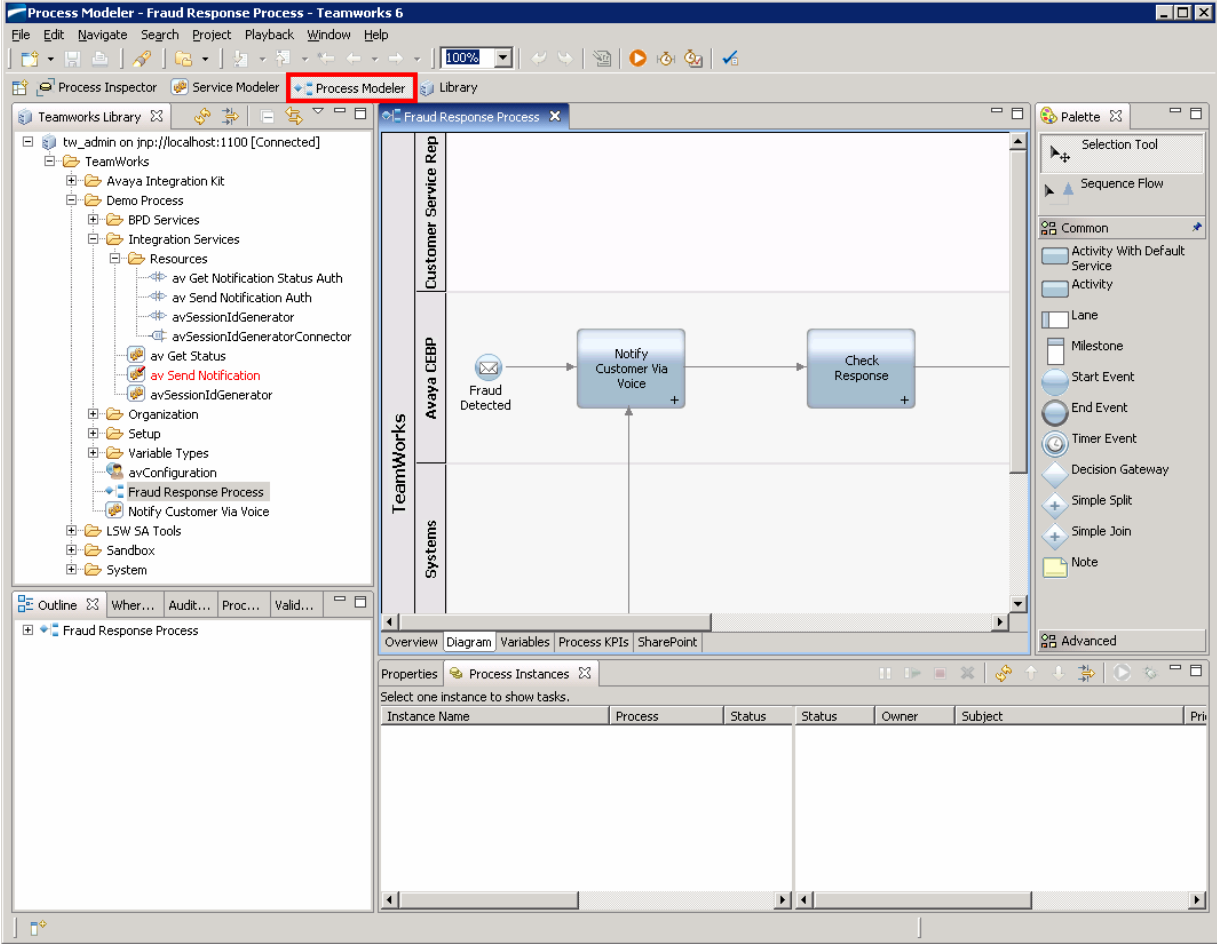
Step	Description
C1	<p>Start the Process Server as follows:</p> <ul style="list-style-type: none"> <li>From the command line (DOS console), navigate to the &lt;<b>Lombardi Teamworks Install-Dir</b>&gt;\process-server directory.</li> <li>Enter <b>startProcessServer.cmd</b> and verify the Process Server is running by noting the following lines in the DOS console:  <b>INFO [ChannelSocket] JK: ajp13 listening on /0.0.0.0:8009</b>  <b>INFO [JkMain] Jk running ID=0 time=0/79 config=null</b></li> </ul> <p><i><b>Note:</b> Do not close the DOS console where the Process Server was started, as this may stop the Process Server. To stop the Process Server, enter the <b>Ctrl+C</b> command in the DOS console where the Process Server was started.</i></p> <pre> C:\Teamworks\process-server&gt;startProcessServer.cmd --&gt; Wrapper Started as Console Launching a JVM... Wrapper (Version 3.0.5) ... 10:36:29,468 INFO [ChannelSocket] JK: ajp13 listening on /0.0.0.0:8009 10:36:29,500 INFO [JkMain] Jk running ID=0 time=0/79 config=null </pre>
C2	<p>Start the Performance Server as follows:</p> <ul style="list-style-type: none"> <li>From the command line (DOS console), navigate to the &lt;<b>Lombardi Teamworks Install-Dir</b>&gt;\performance-server directory.</li> <li>Enter <b>startPerformanceServer.cmd</b> and verify the Performance Server is running by noting the following lines in the DOS console:  <b>INFO [ChannelSocket] JK: ajp13 listening on /0.0.0.0:9009</b>  <b>INFO [JkMain] Jk running ID=0 time=0/156 config=null</b></li> </ul> <p><i><b>Note:</b> Do not close the DOS console where the Performance Server was started, as this may stop the Performance Server. To stop the Performance Server, enter the <b>Ctrl+C</b> command in the DOS console where the Performance Server was started.</i></p> <pre> C:\Teamworks\performance-server&gt;startPerformanceServer.cmd --&gt; Wrapper Started as Console Launching a JVM... Wrapper (Version 3.0.5) ... 10:38:27,359 INFO [ChannelSocket] JK: ajp13 listening on /0.0.0.0:9009 10:38:27,421 INFO [JkMain] Jk running ID=0 time=0/156 config=null </pre>


## Appendix D - Lombardi Teamworks Maintenance

This section describes the steps to delete transactions for the **Fraud Response Process** on Lombardi Teamworks.

Step	Description
D1	<p>Verify the transactions for the <b>Fraud Response Process</b> that are to be deleted as follows:</p> <ul style="list-style-type: none"> <li>• Verify that the process and performance servers are started (see <b>Appendix C</b>).</li> <li>• Open a standard web browser and enter <b>http://&lt;Lombardi Teamworks IP Address or FQDN&gt;:8081/portal</b> into the web browser's URL bar.</li> <li>• Log in to the Process Server Console with user privileges, e.g., select a user account created in <b>Steps 4.4.9 - 4.4.10</b>.</li> <li>• Click <b>History</b> under <b>My Tasks</b>.</li> </ul>



Step	Description
D2	<p>From the Authoring Environment, delete transactions for <b>the Fraud Response Process</b> as follows:</p> <ul style="list-style-type: none"> <li>• If the Process Server is not initialized, start the Process Server (see <b>Appendix C</b>).</li> <li>• Start the Authoring Environment and then log on to Lombardi Teamworks as an administrative user [1].</li> <li>• From the <b>Process Modeler</b> tab, select <b>TeamWorks</b> → <b>Demo Processes</b> → <b>Fraud Response Process</b>.</li> </ul>  <p>The screenshot displays the Teamworks 6 Process Modeler application. The main window shows a process diagram for the 'Fraud Response Process'. The diagram includes a start event 'Fraud Detected', followed by a task 'Notify Customer Via Voice', and then another task 'Check Response'. The interface includes a 'Teamworks Library' on the left with a tree view showing various components like 'Avaya Integration Kit', 'Demo Process', and 'Fraud Response Process'. A 'Palette' on the right contains various process modeling tools like 'Activity With Default Service', 'Activity', 'Lane', 'Milestone', etc. The bottom of the window has tabs for 'Overview', 'Diagram', 'Variables', 'Process KPIs', and 'SharePoint', and a 'Process Instances' table at the very bottom.</p>

Step	Description
D3	To view the listing and status of transaction for the <b>Fraud Response Process</b> , refresh the <b>Instance Name</b> window by clicking  .

**Process Inspector - Fraud Response Process - Teamworks 6**

File Edit Navigate Search Project Playback Window Help

Process Inspector Service Modeler Process Modeler Library

Process Instances

Select one instance to show tasks.

Instance Name	Process	Status	Due Date	Ir	Status	Owner
Fraud Response Process:208	Fraud Respons...	Completed	Apr 25, 2008 2:...	20		
Fraud Response Process:207	Fraud Respons...	Completed	Apr 25, 2008 2:...	20		

Checks the process server and refreshes the list of BPD instances given your current filter settings.

Fraud Response Process

Customer Service Rep

Avaya CEBP

TeamWorks

Fraud Detected

Notify Customer Via Voice

Check Response

Review Rese... Transa...

Custom Confirm


Execution State

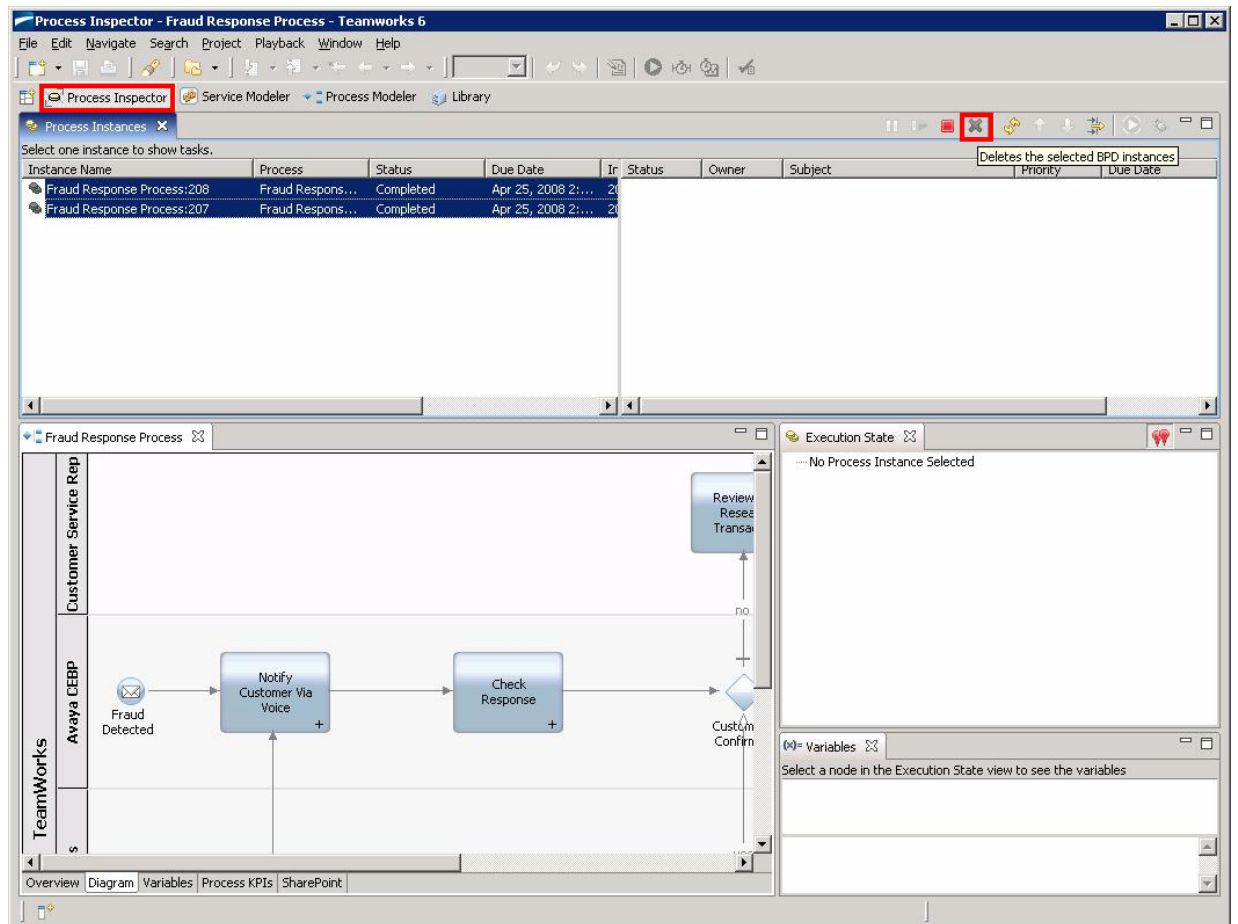
No Process Instance Selected

Variables

Select a node in the Execution State view to see the variables

Overview Diagram Variables Process KPIs SharePoint

Step	Description
D4	<p>To delete transactions for the <b>Fraud Response Process</b>:</p> <ul style="list-style-type: none"> <li>Select the appropriate transactions from the <b>Instance Name</b> window.</li> <li>Click .</li> </ul>



Step	Description
D5	To confirm deletion of transaction, click <b>OK</b> .


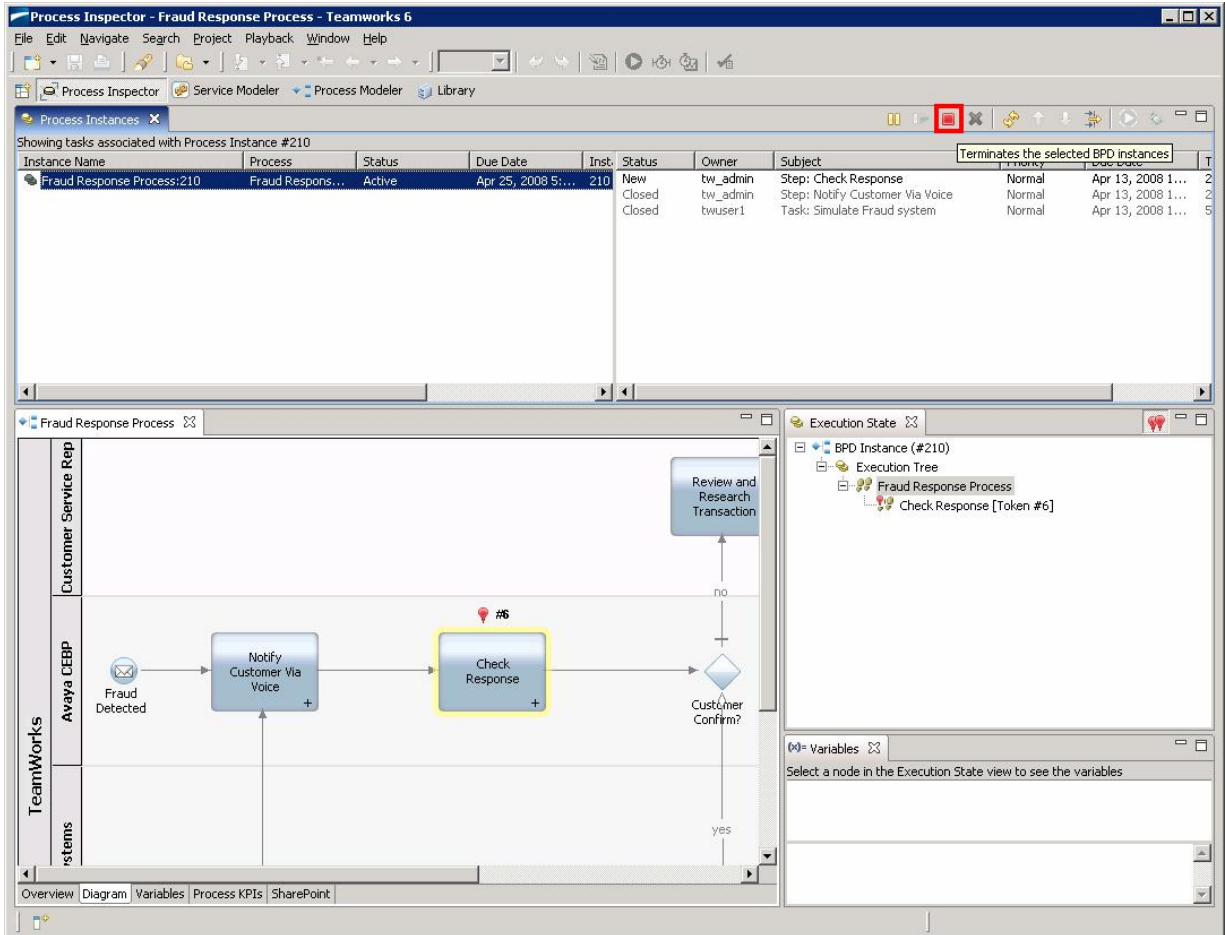
The screenshot shows the Teamworks 6 interface. The 'Process Inspector' tab is active, displaying a table of process instances. A 'Confirm Delete' dialog box is overlaid on the interface, prompting the user to confirm the deletion of selected instances. The 'OK' button in the dialog box is highlighted with a red rectangle, indicating the action to be taken.

Instance Name	Process	Status	Due Date	Ir	Status	Owner	Subject	Priority	Due Date
Fraud Response Process:208	Fraud Respons...	Completed	Apr 25, 2008 2:...	2f					
Fraud Response Process:207	Fraud Respons...	Completed	Apr 25, 2008 2:...	2f					

The process diagram in the background shows the following flow:

```

graph LR
    Start([Fraud Detected]) --> Notify[Notify Customer Via Voice]
    Notify --> Check[Check Response]
    Check --> Custom{Custom Confirm}
    Custom -- no --> End([End])
    Custom -- yes --> End
  
```

Step	Description
D6	<p>If a transaction has an <b>Active</b> status, it is good practice to terminate the transaction prior to deleting them. To terminate the process, select the ones that are <b>Active</b> and click .</p>  <p>The screenshot displays the 'Process Inspector' window for the 'Fraud Response Process' in Teamworks 6. The 'Process Instances' table lists several instances, with the first instance 'Fraud Response Process:210' highlighted in blue and marked as 'Active'. The 'Execution State' view on the right shows the process flow, including a 'Check Response' task highlighted with a yellow border and a red pin icon labeled '#6'. The 'Variables' view at the bottom right is empty.</p>

Step	Description
D7	The transactions are <b>Terminated</b> . To delete terminated transactions, follow <b>Steps D3 - D5</b> .

The screenshot displays the Teamworks 6 Process Inspector window. The top pane, titled "Process Instances", shows a table of process instances for "Fraud Response Process:210". The instance is marked as "Terminated" with a status of "Closed". A red box highlights the "Delete" icon (an "X" in a square) in the toolbar. The bottom pane shows the "Execution State" view, which includes a flow diagram of the process. The flow starts with "Fraud Detected", followed by "Notify Customer Via Voice", "Check Response", and a decision point "Customer Confirm?". If confirmed, it leads to "Review and Research Transaction". The right sidebar shows the "Execution Tree" and "Variables" sections.

Instance Name	Process	Status	Due Date	Inst.	Status	Owner	Subject	Deletes the selected BPD instances	T	
Fraud Response Process:210	Fraud Respons...	Terminated	Apr 25, 2008 5:...	210	Closed	tw_admin	Step: Check Response	Normal	Apr 13, 2008 1...	2
					Closed	tw_admin	Step: Notify Customer Via Voice	Normal	Apr 13, 2008 1...	2
					Closed	twuser1	Task: Simulate Fraud system	Normal	Apr 13, 2008 1...	5



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