Oracle® CRM Technology Foundation

Implementation Guide

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Implementing the CRM Technology Foundation

This topic group provides general descriptions of the setup and configuration tasks required to implement the CRM Technology Foundation (JTT) successfully.

This section covers the following topics:

- Introduction
  - Oracle CRM Technology Foundation Overview
  - Related Documentation and Resources
- Requirements and Dependencies
- Implementation Task Sequence
- Performing Rapid Install
- Performing Supplemental CRM Installation Steps
- Running Diagnostics on HTML Platform and CRM Foundation
  - Diagnostics Framework Overview
  - Terms and Definitions
  - Running Diagnostics on the HTML Platform
  - Running Diagnostics on the CRM Foundation
- Changing the System Administrator Password
- Defining System Settings
- Defining Display Preferences
- Defining Host Names for the Deployment
- Verifying the Implementation

Introduction

Oracle CRM Technology Foundation Overview

The Oracle CRM Technology Foundation (JTT) provides Java-based infrastructure software that is used to develop e-business solutions such as Sales, Marketing, Service, eCommerce, Contracts, and Interaction Center applications. It offers a common platform for developing applications with HTML, XML, and Java. It also provides user-friendly screens for centralized setup and administration. This Web-based interface is called the System Administrator Console.

JTT components include the following:

Core Services

Core Services comprise a number of basic infrastructure capabilities, which are shared across CRM applications. These offer lightweight Java service execution for session management, cursor reuse, transaction management, error handling, global search, auditing, and more.

Application Framework

The Application Framework separates UI look and feel from application logic and content. It is a set of standards, templates, and Java interface classes that are used to compose a CRM application. The framework can be divided into three layers: View, Controller and Model. Each layer has several components. The View layer is responsible for presenting data and receiving user actions. The Controller layer sends messages between the Model and View layers. The Model layer contains all business data and logic and communicates directly with data storage.

Declarative Technologies

Declarative Technologies are tools for building and customizing business flows and application UI components (such as bins, graphs, and reports). The components include the Declarative Page Flows framework and the Declarative Components framework.

The Declarative Page Flows framework enables you to customize, upgrade, and troubleshoot the content and flow of JSPs within an application without making any modifications to actual code. The Declarative Page Flows framework is based on the abstraction of JSPs into named logical entities. Consequently, you can achieve efficient management of content and flows by utilizing the screens provided in the System Administrator Console.

The Declarative Components framework allows you to quickly build UI components that display application-specific data in personalizable Bins, Graphs, Reports, Graph/Reports, or LOVs. The coding requirements are minimal to nonexistent and the components can be published on Oracle applications.

Performance Framework

The Performance Framework optimizes application performance with a Java objects cache that is based in the middle tier.

XML Application Integration

The components of XML Application Integration include XML Services and XML Hooks.

XML Services provides a XML and SOAP-based integration technology solution for all HTML-based applications. It is a framework that allows you to manage interapplication Web service sharing. In other words, you can use XML Services to send and receive business logic over the Internet from one application to another.

XML Hooks is PL/SQL-based technology that provides an XML-based integration solution for form-based applications.

Security Infrastructure

The Security framework provides a common infrastructure for single sign on, authentication, authorization, privacy, and auditing. It offers unified security features to enable end-to-end secure deployments. JTT augments Oracle 9i's already strong security capabilities and ERP's Application Object Library (AOL) to provide customers with a comprehensive security framework that protects customer assets from the Web browser interface all the way to the database. It deploys identification, privacy, authorization, and auditing security features across all deployment tiers and offers customers the flexibility to tailor these features to fit their unique business requirements.

Related Documentation and Resources

You may also wish to consult the following documentation:

- *Oracle Applications, Product Update Notes, Release 11i*
- *Installing Oracle Applications, Release 11i*
- *Implementing CRM Applications*
- *Oracle CRM Technology Foundation Concepts and Procedures*
- *Oracle CRM Foundation Technical Reference Manual*

The following table summarizes the content of each document listed above:

Table 1 Related Documentation

Document	
Oracle Applications, Product Update Notes, Release 11*i*	Contains information about new product features and functions for Oracle applications

Table 1 Related Documentation

Document	
Installing Oracle Applications, Release 11*i*	Documents the Rapid Install installation process
Implementing CRM Applications	Contains postinstallation information on CRM modules
Oracle CRM Technology Foundation Concepts and Procedures	A printed compilation of the Oracle CRM Technology Foundation online help system
Oracle CRM Foundation Technical Reference Manual	Contains table and view descriptions for Foundation components

Requirements and Dependencies

The following is a list of what must be present for the CRM Technology Foundation to be implemented.

Middle Tier Infrastructure

- Apache 1.3.9 or above
- Jserv 1.1
- JSDK 2.0
- OracleJSP 1.1.2
- JDK 1.2.2 or above

Note: The 11.5.6 release of the CRM Technology Foundation is iAS 1.0.2.2 certified.

Implementation Task Sequence

The following is a list of the tasks which you must perform to implement the CRM Technology Foundation successfully.

1. Performing Rapid Install
2. Performing the Supplemental CRM Installation Steps
3. Running diagnostics on HTML Platform and CRM Foundation
4. Changing the system administrator password

5. (Optional) Defining system settings
6. (Optional) Defining display preferences
7. (Optional) Defining host names for the deployment

Performing Rapid Install

Before implementing the CRM Technology Foundation, you should perform the Rapid Install and any necessary patches. For details, please see *Installing Oracle Applications, Release 11i.*

Performing Supplemental CRM Installation Steps

Before implementing the CRM Technology Foundation, you should perform the supplemental CRM installation steps. For details, please see *Oracle Applications Supplemental Installation Steps, Release 11i.*

Running Diagnostics on HTML Platform and CRM Foundation

Diagnostics Framework Overview

The interface for the Oracle CRM Technology Foundation Diagnostics framework allows you to troubleshoot any setup and installation problems of the technology foundation and certain participating applications. Additionally, it allows you to register and employ new diagnostic tests.

The Diagnostics screens automatically launch when you click the Diagnostics tab of the System Administrator Console. The Diagnostics screens allow you to run test groups, run individual tests, manage test groups, manage tests, set default test input values, and register applications. For documentation about the Diagnostics screens, please see *Oracle CRM Technology Foundation Concepts and Procedures*.

Note: The following URL can also be used to access the Diagnostics screens:

http://<*hostname*>:<*portnumber*>/OA_HTML/jtfqalgn.htm

One issue with the HTML modules is the inability of a user to log in to the console. Quite frequently, this has nothing to do with the setup of the HTML Tech Stack or the System Administrator Console. The problem is that user data, especially numeric data, is entered incorrectly during user definition. This can effectively make it impossible to log in to the console and correct the problem. The independent URL for the Diagnostic framework then becomes the portal for pinpointing and correcting the error.

Terms and Definitions

The following table describes the key concepts and features of the Diagnostics framework.

Table 2 Terms and Definitions

Term	Definition
Applications	You must register the applications that you want to run tests on. In the Diagnostics screens, you can register applications and if necessary, define application prerequisites.
Test	A Java test that verifies the correct behavior of a particular feature or function. In the Diagnostics screens, you can run, register, delete, and set default input values for tests.
Test Group	A set of related tests. A test group may have other test groups defined as prerequisites. In the Diagnostics screens, you can run, create, modify, and remove test groups.

Table 2 Terms and Definitions

Term	Definition
Prerequisite	A concept that applies to both applications and test groups. Setting prerequisites is sometimes necessary for procedures to execute correctly. For example, the DBConnections test group has the Environment Setup test group set as its prerequisite, because the Environment Setup test group contains the DBC Parameter test which checks the DBC file. If the DBC Parameter test fails, the no tests in the DBConnections test group will be successful. In addition, the CRM Foundation application has the HTML Platform application set as its prerequisite. If some tests in the CRM Foundation fail, it is likely due to an error in the HTML Platform. Therefore you can run the HTML Platform tests to trace the problem. The Diagnostics interface offers screens that allow you to define prerequisites for applications as well as test groups.

Running Diagnostics on the HTML Platform

Use this procedure to run all test groups on the HTML Platform in order to ensure that the HTML Platform is set up correctly.

Prerequisites for This Procedure

1. Launch the Diagnostics framework by opening the following URL: http://<*hostname*>:<*portnumber*>/OA_HTML/jtfqalgn.htm
2. When prompted, use the sysadmin (system administrator) user name.

Steps

1. Select the **Basic** tab.
2. Choose **HTML Platform** from the Application drop-down list.
3. Click **Run All Groups**.
4. View the test results.
5. All tests should pass. If you want to view a detailed summary of a test, then click the corresponding icon in the Report column.

   If a test does not pass, then view the fix information provided.

   In some cases, warnings are provided, such as "Classpath Not Found."

Running Diagnostics on the CRM Foundation

Use this procedure to run all test groups on the CRM Foundation in order to ensure that the CRM Foundation is set up correctly.

Prerequisites for This Procedure

1. Launch the Diagnostics framework by opening the following URL: http://<*hostname*>:<*portnumber*>/OA_HTML/jtfqalgn.htm
2. When prompted, use the sysadmin (system administrator) user name.

Steps

1. Select the **Basic** tab.
2. Choose **CRM Foundation** from the Application drop-down list.
3. Click **Run All Groups**.
4. View the test results.
5. If you want to view a detailed summary of a test, then click the corresponding icon in the Report column.
6. All tests should pass. If you want to view a detailed summary of a test, then click the corresponding icon in the Report column.

   If a test does not pass, then view the fix information provided.

   In some cases, warnings are provided, such as "Classpath Not Found."

Changing the System Administrator Password

For security reasons, it is recommended that you change the system administrator's password from the default password during the implementation process. Use this procedure to change the system administrator's password.

Note: If in your scenario, the guest user (also known as the "Self Service User) is also the sysadmin (system administrator), then make sure that you change the password for the guest user (Self Service User) also. Please see the topic "Setting Up the Self Service User" in *Oracle CRM Technology Foundation Concepts and Procedures.*

Prerequisites for This Procedure

Log in to the System Administrator Console.

Steps

1. Click the global navigation button labeled **Profile**.
2. Choose **Change Password** from the left navigation bar.
3. Type the current password into the Current Password field.
4. Type a new password into the New Password field.

   Passwords must be at least six characters long.
5. Retype the new password into the Re-Enter New Password field.
6. Click **Update** to save.

Defining System Settings

This is an optional implementation step. If desired, during implementation you can define system settings such as branding, password expiration, and cookies by using the System subtab. The System subtab displays under the Settings tab of the System Administrator Console . For more information, please see the topics "Understanding the System Subtab" and "Using the System Subtab" in *Oracle CRM Technology Foundation Concepts and Procedures.*

Defining Display Preferences

This is an optional implementation step. If desired, during implementation you can define display preferences such as language, currency, and date format by using the Profile screens in the System Administrator Console. For more information, please see the topic "Setting Display Preferences" in *Oracle CRM Technology Foundation Concepts and Procedures.*

Defining Host Names for the Deployment

This is an optional implementation step. If desired, during implementation you can define the hosts that are present in your deployment. For more information, please see the topic "Setting Up Hosts" in *Oracle CRM Technology Foundation Concepts and Procedures.*

Verifying the Implementation

The following is a list of the tasks that should be performed to verify that the implementation was successful.

1. Log in to the System Administrator Console using jtfdefaultlogin.jsp with username "sysadmin" and password "sysadmin." This will perform robustness checking. If successful, you will be able to log in using jtflogin.jsp. If not, a report will indicate that further diagnostics need to be performed.
2. Click the Diagnostics tab to launch the Diagnostics framework.
3. Run diagnostics on HTML Platform and CRM Foundation and confirm that all tests were passed.

Implementing User Management

This topic group provides general descriptions of the set up and configuration tasks required to implement the application successfully. This section covers the following topics:

- Related Documentation and Resources
- Setting System Profile Options
- Creating a Universal Primary User Approver
- Starting the Workflow Process
- Stopping the Workflow Process
- Obsoleted Windows
- Backward Compatibility
- Additional Setup Instructions

Related Documentation and Resources

You can consult the following documentation:

- *Oracle Applications, Product Update Notes, Release 11i*
- *Installing Oracle Applications, Release 11i*
- *Implementing CRM Applications*
- *Oracle CRM Foundation Components Concepts and Procedures*
- *Oracle CRM Foundation Technical Reference Manual*
- *Oracle Workflow Guide*

These documents range from the general to the specific, in the order listed in the following table.

Table 3 Related Documentation

Document	Purpose
Oracle Applications, Product Update Notes, Release 11*i*	This document contains information about new product features and functions for the various Oracle applications.
Installing Oracle Applications, Release 11*i*	This documents the Rapid Install installation process.
Implementing CRM Applications, A85301-01	This document contains post-installation information on CRM modules.
Oracle CRM Foundation Components, Concepts and Procedures	This document contains a printed compilation of the Oracle Foundation online help system.

Setting System Profile Options

Perform the following steps to find and set the system profile option.

Prerequisites

None

Steps

1. In the System Administrator responsibility, navigate to **Profile > System**.

   The Find System Profile Values window opens.

2. Enter the following in the Profile field:

   ```
   JTF_%
   ```

3. Click **Find** to open the System Profile Values window.
4. Select one of the profile options listed below.
5. Set the profile as desired
6. Select **File > Save**.

The following is a list of profile options that affect the behavior of the new User Management module. Please go through this list and set the profile options according to your requirements.

Profile Option JTF_PRIMARY_USER

This profile predetermines the username that corresponds with the "Universal Primary User Approver". Please refer to the User Management documentation for further information on this concept and additional setup steps.

Profile Option JTF_INDIVIDUALUSER_ACCOUNT

The profile option JTF_INDIVIDUALUSER_ACCOUNT, when set to Yes, creates a new account (in the HZ_CUST_ACCOUNTS table) for each individual user and also associates the user with the corresponding account. Users must have an account in order to be able to buy products through iStore.

Profile Option JTF_UM_APPROVAL_OWNER

The profile option JTF_UM_APPROVAL_OWNER, which by default is set to SYSADMIN, is used in the approval process. If the last approver in a predefined approval definition fails to approve a request, the person defined in this profile option will be the escalation point of contact and will receive the request. The user specified as the value for this profile option must have the CRM_HTML_ADMINISTRATION responsibility and the JTF_REG_APPROVAL and JTF_SECURITY_ASSIGN_ROLE permissions.

Profile Option JTF_UM_APPROVAL_TIMEOUT_MINS

The profile option JTF_UM_APPROVAL_TIMEOUT, defines (in minutes) how long a workflow notification remains in a queue before it is timed out. The default is 1440 (1 day). If you enter 0 as the default, no time out occurs. If no value is set, the profile option is defaulted to 0.

> **Note:** The Process Timeout field in the parameters window when starting the "JTF Approval" workflow must be set to Yes for this profile option value to take affect.

Profile Option JTF_UM_APPROVAL_URL

The profile option JTF_UM_APPROVAL_URL, defines the absolute path of the login page (jtflogin.jsp) that an approver must go to in order to accept or reject a request. The URL is included in the workflow notification sent to each approver. The same URL is sent to the user once their request is accepted or rejected.

Profile Option JTF_UM_MERCHANT_NAME

The profile option JTF_UM_MERCHANT_NAME, defines the name of your organization. The workflow inserts this name into request approvals and rejections when they are sent to the user.

Profile Option JTF_REGISTRATION_CACHE

The profile option JTF_REGISTRATION_CACHE determines whether the registration pages will cache the data entered by the user during the registration flow. The default value is Yes. If set to yes and if the user presses the browser "Back" button, then the data entered on the previous page is available. If the profile option is set to No, then the data (page) expires as soon as the user leaves the page.

Creating a Universal Primary User Approver

The Universal Primary User Approver, which is set up as the JTF_PRIMARY_USER Profile Option, is a generic Primary User used to capture approval requests when an organization has more than one Primary User. The Universal Primary User should only be used for organizations and not individual users because they are not associated with any organization and usually do not require approval.

Oracle recommends creating a new enrollment specifically for Primary Users along with its own Approval definition listing all Primary Users for the organization. Once an approval is sent, and a universal primary user is specified, all primary users defined in the approval definition will receive it. Once an approver accepts or rejects the request, a notification is sent back to the customer (unless a series of approvers is specified). This type of request is only viewable from the Pending Requests window and no email notification is sent. Perform the following steps to create a Universal Primary User Approver.

Note: This procedure must be done in forms.

WARNING: Enrollments, Individual Users, and Organization approvals without a Primary User are directed to the Universal Primary User Approver. The request sits in the queue till it times out (if time out is enabled) and then is redirected to the system administrator. Enrollments being shared between Individual Users and BUsiness Users if enrollments are attached, must have approval timeout enabled. You should create a new enrollment specifically for Individual users.

1. Create a Universal Primary User Approver as an application user in forms.
2. You must define the application user's email address.
3. Assign the user to the JTF_APPROVER role and the JTF_PRIMARY_USER responsibility.
4. Define the JTF_PRIMARY_USER profile option with the value of the profile defined as the user you just created.
5. Log in to the HTML UI for User Management (Sys Admin Console).
6. Define the user as an approver in the Approval setup.

   All primary users see the request for their organization. The first one to accept or reject is the final say, unless there are a series of approvers specified.

Starting the Workflow Process

Note: Refer to the *Oracle Workflow Guide* on how to set up and monitor workflow.

Note: Email notifications will only be sent if the Workflow mailer is setup and configured properly. The PHP / Self Service Workflow notifications page can also be used to view notifications. Please refer to the Workflow documentation for more information on how to start and configure the workflow mailer.

The User Management Approval definition uses workflow to track and route the request to the approvers. The default workflow JTF APPROVER retrieves the first approver from the hierarchy list and notify the approver. When the approver approves the request, workflow tries to find the next approver. This process repeats until, either there are no more approvers, or the request is rejected. Workflow items are sent to an approvers worklist and email address. For user types, the approver receives a URL in their notification. They click on this link to access the Pending Approvals window.

WARNING: If the approval is tied to an enrollment, and that enrollment is attached to an individual user, the request does not appear in the pending approvals window, and no notification is sent through the workflow, because individual users are not tied to any organization and do not have to be approved to register. Oracle recommends that you define a different approver and enrollment for Individual users.

The JTF_USER_APPROVAL permission is tied to the workflow and is used to define the user. The workflow process must be running in the background for the registration and approval process to function correctly. The workflow mailer process must also be running for email approval notifications to be sent to the user. After the user registers, the user type approval workflow is launched. Once the user is approved, then the enrollment approval workflows are launched.

Note: If the concurrent manager is not up and running, workflow does not work correctly.

WARNING: Oracle does not support customizations. However, if you want to change the workflow, for example, to change the email messages that are sent to the user, do not overwrite the existing workflow. If modifications are necessary, create a copy of the workflow and work from that. This recommendation is for your protection in case you make any mistakes while making changing the workflow.

Prerequisites

- You must perform the following procedure in forms.
- See the *Oracle Workflow Guide* for more information.
- To customize a workflow process, three activities must be defined in the workflow process: Select Approver, Approve Request, and Reject Request.

Steps

1. Log in to forms applications with the system administrator responsibility.
2. Select **Concurrent > Request**.

   The Find Request window opens.
3. Click **Submit a New Request**.

   The Submit a New Request window opens.
4. Select the Single Request option button and click **OK**.

   The Submit Request window opens.
5. Enter the name of the workflow process as "Workflow Background Process." Workflows must be defined in the approval setup. Oracle is shipping one seeded workflow out-of-the-box, JTFAPPROVAL workflow

   The parameters window opens.

   a. Enter JTF_APPROVAL as the Item Type. This must be defined as an approval type in the approval definition set in the Sys Admin User tab. The item type restricts this engine to activities associated with the item type you select.

   b. Enter the Minimum and Maximum thresholds which specifies the minimum and maximum costs that an activity must have for this background engine to execute it, in a hundredth of a second.

   c. Enter No for the Process Deferred, which specifies whether this background engine checks for deferred activities.

   d. Enter Yes for Process Timeout and click **OK**.

      If this is set to No, the workflow process ignores the JTF_UM_APPROVAL_TIMEOUT profile option
6. Click **Schedule** next to the At these times option, region.
7. Select the job to run the job periodically, in the Run the Job region.
8. Enter the start date and leave the end date blank to run the workflow indefinitely.
9. Define the interval which triggers the workflow to check for requests every specified minute, hour, day, week, or month and click **OK**.
10. Click **Yes** in the confirmation window if you selected for the workflow to run indefinitely.
11. Click **Submit** to confirm

12. Click **No** to exit.

Stopping the Workflow Process

Perform the following steps to stop the workflow process.

Prerequisites

- You must perform the following procedure in forms.
- A workflow must be running.
- See the *Oracle Workflow Guide* for more information.

Steps

1. Log in to the forms as the system administrator.
2. Select **Concurrent > Request**.

   The Find Request window opens.
3. Query any workflows that are running.
4. Cancel the request.

Obsoleted Windows

The "Default Responsibility" and "Default Roles" screens have been obsoleted. This information is now defined at the User Type level. Perform the following steps to view and modify user types roles and responsibilities.

> **Note:** In the old registration module, the default roles and responsibility were granted to the user upon registration. The new User Management module will only grant the roles and responsibility (defined at the user type level) to the user when the request is approved.

Prerequisites

None

Steps

1. Log in to the CRM System Administrator Console as a system administrator.

2. Select the Users tab.
3. Click **Setup** on the main navigation bar.
4. Click **User Types** in the side navigation bar.

   The Available User Types window opens.
5. Click the user type that you want to edit and Click **Next** (until you see a drop-down of responsibilities and a list of roles).

   An upgrade script that is automatically run as part of this patch will modify the Business and Individual user type definitions to include the settings that were defined in the obsoleted screens. The Primary User Type definition includes an implicit enrollment which will also be modified with the Business User default Responsibility and Roles.

Backwards Compatibility

User and account requests that were filed before the latest version of User management was applied need to be approved using the old "Pending Requests" screen. Perform the following steps to approve or reject these user requests.

> **Note:** The "End User" user type in the old registration module has been renamed to "Individual User"

Prerequisites

None

Steps

1. Log into the CRM System Administrator Console as sysadmin, using the CRM HTML Administrator responsibility.
2. Go to the Users tab
3. Select Pending Approvals
4. At the bottom of this screen you will see a link:

   "Requests filed through the old registration module will have to be approved from the old request page. This link will be removed, once all these requests have been processed. Click here"
5. Click this link and approve or reject the users as you see necessary. Any user account requests filed after this patch has been applied will be visible in the main Pending Approval screen.

Additional Setup Instructions

If only one product (out of iStore, iSupport, Partners Online) is used at your client site then you can safely deactivate all enrollments for the "Business" and "Individual" User Types. Perform the following steps to change the responsibility and roles for these user types to what is currently defined in the enrollment that corresponds to the product you have installed.

Prerequisites

None

Steps

1. Log in to the CRM System Administrator Console as a system administrator.
2. Select the Users tab.
3. Click **Setup** on the main navigation bar.
4. Select **Enrollments** in the side navigation bar.

   The Enrollments window opens.
5. Click on the name of one of the enrollments that corresponds to the product you have installed.
6. Note the responsibility and roles defined for this enrollment.
7. Select **User Types** in the side navigation bar.
8. Click the user type that corresponds to the enrollment you selected in step 5.
9. Click **Next** until you see a drop-down of responsibilities and a list of roles.
10. Change the responsibility and add the roles you noted down in step 6.
11. Click **Next** until you see a list of enrollments.
12. Make sure the Activate column states No for all enrollments.
13. Click Next to save your information.
14. Repeat 4-13 for each user type.

    If only one the products mentioned above is installed, then you can change the Activation Mode to "Implicit" for the corresponding enrollments for the "Primary User" user types. Any user registering as a primary user will then automatically be enrolled into the specified enrollments. The Activation Mode can be changed in the Enrollments window.

Note: For Primary Users to be able to approve users that register for their organization, they (the primary users) will need to have the CRM Primary User responsibility and the JTF_PRIMARY_USER role.
