Oracle® Enterprise Manager

Getting Started with Application Management Pack for Siebel

12*c* Release 5 (12.1.0.5)

E26046-07

March 2015

ORACLE®

Oracle Enterprise Manager Getting Started with Application Management Pack for Siebel, 12*c* Release 5 (12.1.0.5)

E26046-07

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Preface

This document provides a brief introduction to the Siebel Management Pack, and describes the value-added features this pack offers. This document also lists the metrics collected for Siebel targets, and describes some troubleshooting tips you can use to resolve monitoring issues.

This Preface contains the following topics:

- Intended Audience
- Documentation Accessibility
- Related Documents
- Conventions

Intended Audience

This book is intended for users of the Oracle Application Management Pack for Siebel (referred to as Siebel Plug-in) to manage Siebel Customer Relationship Management (CRM) applications.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at `http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc`.

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Related Documents

For more information, see the following documents:

- *Enterprise Manager Cloud Control Quick Start Guide*
- *Enterprise Manager Concepts Guide*
- *Siebel 8 System Monitoring and Diagnostic Guide* (on the Siebel 8 bookshelf)
- *Enterprise Manager Cloud Control Installation Guide*
- *Enterprise Manager Advanced Configuration*

You can access these documents from the Oracle Technology Network:

http://www.oracle.com/technology/documentation/index.html

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

What's New in This Revision?

In between Enterprise Manager product or plug-in releases we have updates to the guides owing to customer requests, updates to the product, and bug fixes. Our books are accordingly updated and this chapter maintains a log of the updates and changes to this version of the book.

Change Details

The following table details the major changes in this version of the book:

Section, Chapter or Part	Change Description
Section 3.1, "Prerequisites for Adding a Siebel Enterprise or Target"	New section added.
Section 3.3, "Discovery Process of the Siebel Enterprise in Enterprise Manager"	New section added.
Section 3.10, "Patching Siebel Targets"	New section added.
Section 3.11, "User Roles and Privileges"	New section added.

1 Introduction

This chapter provides introductory information about the Oracle Application Management Pack for Siebel, including Siebel targets added to Enterprise Manager.

1.1 Functional Overview of Siebel

Oracle Application Management Pack for Siebel (referred to as Siebel Plug-in) is an integrated solution for managing the entire Siebel Enterprise. It leverages the capabilities of Oracle Enterprise Manager Cloud Control in configuration management, application performance management, automation, and service-level management to help you achieve the high level of performance and availability your Siebel CRM applications require.

With the Siebel Plug-in, you can:

- Manage multiple Siebel environments from a single console.
- Monitor the health and capacity utilization of your Siebel server environment, the hosts for these servers, and the Server Components deployed within the Siebel Application Servers.
- Track configuration changes you have made to Siebel Application Servers and Server Component parameters.
- Monitor actual end-user response time as well as response time from synthetic service test transactions.
- Diagnose performance and availability problems through performance analysis.
- Model, monitor, and report on the service level your Siebel CRM applications deliver.
- Monitor Event Logs.

1.2 Siebel-specific Targets

Table 1–1 shows the Siebel targets added to Enterprise Manager in order to facilitate the management of Siebel CRM applications. These targets model the entities within a Siebel environment so they can be managed within Enterprise Manager.

Most of these targets have a direct one-to-one mapping with their counterparts in Siebel. Some are created to facilitate specific management capabilities within Enterprise Manager.

Table 1–1 Siebel-specific Targets

Enterprise Manager Target	Siebel Entity	Purpose
Siebel Enterprise	Siebel Enterprise	Representation of a Siebel enterprise providing access to metrics and associated Siebel servers.
Siebel Server	Siebel Application Server	Representation of a Siebel server providing access to related metrics and configuration information, and associated Siebel components.
Siebel Component Group	Siebel Component Group	Representation of a Siebel component group providing access to metrics and associated Siebel components.
Siebel Component	Siebel Component	Representation of Siebel components providing access to component metrics and configuration information.
Siebel Key Components	-	Representation of all the Siebel components providing mandatory functionality for the proper function of a Siebel server.
Siebel Functional Components	-	Representation of all the Siebel components providing functionality that multiple components can use (for example, Workflow).
Siebel Database Repository	Siebel Database	Representation of a Siebel database providing access to Siebel business metrics.
Siebel Gateway Server	Siebel Gateway Server	Representation of a Siebel gateway server.
Siebel Application Service (HI)	Employee-facing Siebel Applications (high interactivity)	Aggregated service providing information about all the Siebel high interactivity applications.
Siebel Application Service (SI)	Customer-facing Siebel Applications (standard interactivity)	Aggregated Service, providing information about all the Siebel standard interactivity applications.
Siebel Workflow	-	Representation of Siebel Workflow target providing access to workflow processes and component groups.

2

Performing Installation and Upgrades

This chapter provides preliminary advisory information and procedures for the following topics:

- Prerequisites for Setting Up Siebel in Enterprise Manager
- Setting Up Siebel in Enterprise Manager
- Enabling Automation

2.1 Prerequisites for Setting Up Siebel in Enterprise Manager

Note the following system requirements before installing a Siebel Enterprise in Enterprise Manager:

- The Siebel Plug-in is supported on the same platforms that support the Siebel software. Currently, the Siebel Plug-in is supported with Siebel 7.7, Siebel 7.8, and all later versions. To learn about the Siebel system requirements, refer to the Certifications tab in My Oracle Support (MOS).
- The beacons for driving service test transactions against employee-facing (high interactivity) Siebel CRM applications must run on Microsoft Windows-based computers. These beacons rely on Microsoft Internet Explorer for driving transactions to Siebel.
- You must use Microsoft Internet Explorer to connect to Enterprise Manager when recording or updating a service test. This is a requirement whether the test is for customer-facing (high interactivity) or employee-facing (standard interactivity) Siebel applications.

2.2 Setting Up Siebel in Enterprise Manager

Before you start monitoring Oracle Application Management Pack for Siebel in Enterprise Manger, you must perform the following tasks to install a Siebel enterprise:

1. Install Enterprise Manager Cloud Control.

   The information required to perform these steps is available in the *Enterprise Manager Cloud Control Installation Guide* available at:

   `http://www.oracle.com/technology/documentation/oem.html`

2. Deploy the Siebel plug-in on OMS as follows:

   a. From the Cloud Control Setup menu, select **Extensibility**, then **Plug-ins**.

      The Plug-ins page appears.

   b. Select **Oracle Siebel** in the Plug-ins table.

   c. Click **Deploy On**, then select **Management Servers**.

3. Install an Agent on each of the hosts.

   Install an Agent in each of the hosts where the Siebel Gateway Server, Siebel Web Server, Siebel Application Server, Siebel Report Server, Siebel Chart Server, Siebel Search Server, and the Siebel Database run. Also, you should install an Agent on each of the systems where you plan to deploy your Service Test Beacons if these systems differ from the Siebel server hosts.

   The information required to perform these steps is available in the *Enterprise Manager Cloud Control Installation Guide*.

   If you want to monitor additional software, such as LDAP and e-mail servers that you use with Siebel, and you have the proper license for monitoring these targets, install the Agent on these hosts as well.

4. Deploy the Siebel plug-ins to each of the Management Agents installed in the previous step.

   Beacon plug-ins are to be deployed only on the Management Agents on which beacons are to be created to run service tests.

5. Set the Preferred Credentials for all the hosts where the Management Agents are installed. This enables Enterprise Manager to execute commands on the computers hosting the Siebel Application Servers.

   To set the Preferred Credentials:

   1. From the **Setup** menu, select **Security,** and then select **Preferred Credentials.**

   2. On the Preferred Credentials page, select **Siebel Server** as the target type from the table, and click **Manage Preferred Credentials.**

   3. On the **Host Preferred Credentials** page, in the **Default Preferred Credentials** section, select the Credential Set from the table, and click **Set.**

6. *(optional)* Enable automation.

   To create Enterprise manager beacons for Siebel High Interactivity applications, the Siebel components to be monitored must be configured to provide Automation support.

   Section 2.3, "Enabling Automation" describes how to enable automation support.

7. *(optional)* Enable SARM.

   To monitor user performance, you must manually enable Siebel Application Response Measurement (SARM). To enable SARM for specific components, access `srvrmgr` and execute the following commands:

```
change param SARMLevel=2 for comp [component_name]
change param SARMBufferSize=5000000 for comp [component_name]
change param SARMFileSize=15000000 for comp [component_name]
change param SARMPeriod=3 for comp [component_name]
```

   Note: If you want to enable SARM for multiple components, you must execute this sequence of commands for each of the components.

8. *(optional)* To monitor end-user performance using the Service Level Management feature, configure your environment for Siebel deployments on Microsoft Windows.

   To enable the beacon to monitor High Interactivity (HI) applications:

   a. From the Microsoft Windows Beacon system, click **Start**, then **Control Panel**.
   b. Double-click **Administrative Tools**, then double-click **Services**.
   c. Scroll down to the **Enterprise Manager Agent** service. Typically, this Agent is named `Oracleagent12c1Agent`.
   d. Double-click the service entry.
   e. On the **Log On** tab, select the **Allow service to interact with desktop** option.
   f. Click **OK** to save your changes.

   Also, you must configure an operating system user account on Enterprise Manager. Enterprise Manager uses this user account to grant sufficient permission to the Windows operating system user on the Beacon system. For Management Agents located on Windows-based computers, this user account needs one, special Windows permission that is not granted by default. To grant this permission:

   a. From the Microsoft Windows Beacon system, click **Start**, then **Control Panel**.
   b. Double-click **Administrative Tools**, then double-click **Local Security Policy**.
   c. Under Security Settings in the left pane, expand **Local Policies**, then double-click **User Rights Assignment**.
   d. Double-click the **Log on as a batch job** entry.
   e. Click the **Add User or Group** button, then enter the Windows operating system user name or a group containing this user.
   f. Click **OK**, then click **Apply** and **OK** on the next dialog box to save your changes.

9. *(optional)* Enable timed statistics.

   If you want to monitor a variety of available Siebel performance metrics through Enterprise Manger, run the following `srvrmgr` command for each of the components:

   ```
   change param TimedStats=true for component [component_name]
   ```

10. *(optional)* To monitor end-user performance using the Service Level Management feature, manually access all applications before recording a new transaction.

    Before recording a new transaction, you need to manually access all applications and manually satisfy all pop-up windows' requests. If you do not perform this task, the pop-up windows interfere and interrupt your recording session. This step must be done once on each system where a beacon is going to be deployed, and this is most applicable for HI applications.

    Additionally, while recording a new transaction, the URL must include `SWECmd=AutoOn`. This setting allows Enterprise Manager to interact with the Siebel test automation framework.

11. *(optional)* Access HI applications from the beacon's computer.

    HI applications need to be accessed once from the beacon computer before discovering the Siebel HI Applications in Enterprise Manager.

2.3 Enabling Automation

The following sections describes how to enable options for Siebel versions 7.7, 7.8, and 8.0. This section contains the following:

- Enabling Automation for Siebel Versions 7.7 and 7.8
- Enabling Automation for Siebel Version 8.x

2.3.1 Enabling Automation for Siebel Versions 7.7 and 7.8

To enable Automation support, access a server-side configuration file (for example, `uagent.cfg` for Call Center), search for the `EnableAutomation` variable, and change its value to `TRUE`.

1. Access a server-side configuration file, such as `uagent.cfg` for Call Center.
2. Search for the `EnableAutomation` variable and change its value to `TRUE`.

   If the variable definition does not exist, locate the `[SWE]` section in the configuration file and add the following line:

   ```
   EnableAutomation = TRUE
   ```

3. Save the changed configuration file and restart the Siebel server.

2.3.2 Enabling Automation for Siebel Version 8.x

To enable Automation support, do the following:

1. Execute the following `srvrmgr` command for all High Interactivity components you plan to monitor through Enterprise Manager beacons:

   ```
   change parameter EnableAutomation=True for server server_name comp comp_name
   ```

2. After applying the command for all desired components, restart the Siebel server.

3

Configuring Siebel Enterprise Targets

This chapter provides information on the following topics:

- Prerequisites for Adding a Siebel Enterprise or Target
- Adding a Siebel Enterprise
- Discovery Process of the Siebel Enterprise in Enterprise Manager
- Updating the Siebel Enterprise
- Updating the Siebel Servers
- Siebel Compliance Standards
- Adding Non-Siebel Targets to an Existing Siebel Enterprise Target
- Defining Manually Added Non-Siebel Targets as Critical Targets for a Service
- Removing Servers or Components From an Existing Enterprise
- Patching Siebel Targets
- User Roles and Privileges

3.1 Prerequisites for Adding a Siebel Enterprise or Target

Ensure the following prerequisites are met before adding a Siebel enterprise or a Siebel target:

- The Management Agent should be installed in the Gateway target host, and it's status should be "up" and running.
- The Management Agent user should have read access to the siebel files, `siebns.dat`, and `siebenv.sh`.
- In case the gateway install location will not be provided as an input during discovery, the Management Agent should have read access to `vpd.properties` file.
- The Management Agent user should have execute permission to the `srvrmgr` utility (to validate that the provided `srvrmgr` credentials are correct).
- For complex networks, wherein the Siebel host name is different when compared to the host name discovered in Enterprise Manager, the user has to add mapping entries in the `siebelserverconfig.xml` file. This file is located in `<agentinstalldir>/siebelserverconfig` directory of the gateway host.

3.2 Adding a Siebel Enterprise

Siebel Enterprise enables administrators to logically organize distributed targets for efficient and effective management and monitoring.

To add a Siebel Enterprise to Cloud Control for monitoring, perform the following steps:

1. From the **Targets** menu, select **Siebel**.
2. On the Siebel page, select the Enterprises tab, then click **Add**.

   The Add Siebel Enterprise page appears, as shown in Figure 3–1.
3. Enter the credentials. You can also select **Auto Start Mode** to discover only those components for which the start mode is set as 'auto'. Selecting this option will ignore all the components for which the start mode is set as 'manual'.

   Note: For typical installations, the gateway server port is 2320.
4. After entering the credentials, you can either choose to continue with adding the enterprise by clicking **Add Enterprise,** or perform the **Discovery Precheck.**
5. To perform the Precheck, click **Discovery Precheck.**

   Clicking Discovery Precheck opens the Discovery Precheck wizard, which displays whether the Precheck was performed successfully. Click **Close** to proceed to the **Precheck Details** page.

   Discovery Precheck performs the following checks, the detailed results of which are displayed on the Precheck Details page.

   - Gateway Check
   - Discovery Check
   - Server Manager Check
   - Server Check
   - Enterprise Check
   - Host Check

   After reviewing the details on the Precheck Results page, click **Proceed to Discovery.** You can proceed with the discovery only if the Precheck is successful.

   If the Precheck fails, check all the credentials provided, and if the Enterprise already exists in the Enterprise Manager Repository.

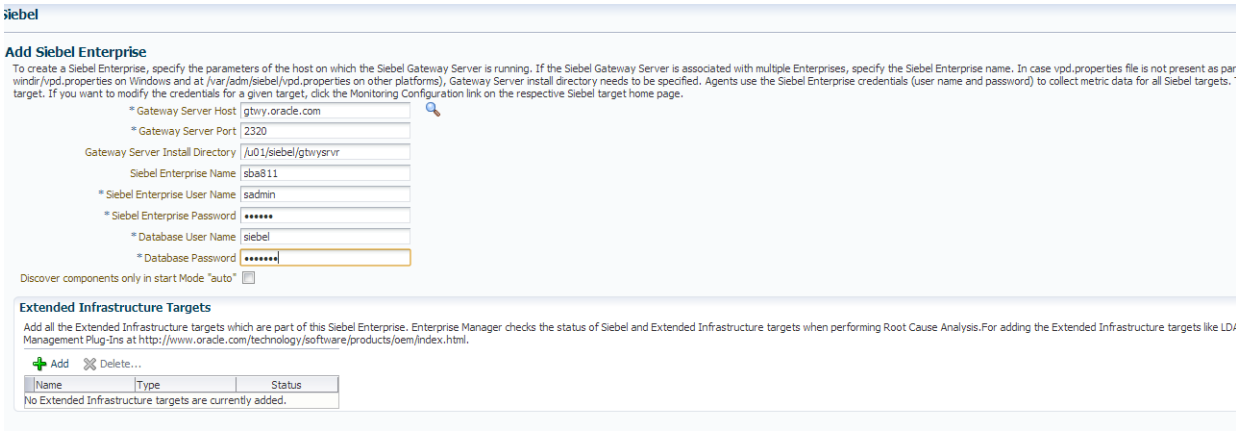
   The progress page notifies you when the Siebel Enterprise and its associated targets are created.

Note: The discovery will fail if there is a mismatch in the host name of the Siebel server and the host name discovered in Enterprise Manager (EM).

There is a possibility of a mismatch in complex Siebel network configurations such as virtual host or cluster Siebel servers/gateways, where the Siebel host mentioned in Siebel configuration does not match with the host monitored in EM. In such cases, the `siebelserverconfig.xml` file provides mapping between these hosts.

The `siebelserverconfig.xml` file should be used to add mapping host entries for discovery. The file can be found in `<agent_inst>/sieblserverconfig` directory. The `siebelserverconfig` directory is not available in a fresh plug-in deployment. It will be created after the first siebel target discovery. Thereby, Siebel servers with mismatched hosts will not be discovered in the first discovery attempt.

Figure 3–1 Add Siebel Enterprise Page



3.3 Discovery Process of the Siebel Enterprise in Enterprise Manager

This section explains how the Siebel Enterprise is discovered by Enterprise Manager. The steps below show the process followed for the discovery.

1. The user enters information on the Discovery screen.

2. OMS connects to the agent running on the gateway host which internally calls the perl file (`siebelDiscovery.pl`) located in empa discovery plug-in.
3. The `siebelDiscovery.pl` file executes a Java command to populate the list of targets.
4. The Java code parses the Siebel files and generates the target list.
5. The list of targets are sent to the OMS.
6. The OMS parses the list of targets and performs a set of validations.
7. The targets are created in the OMS repository.
8. These targets are sent to the Management Agent for monitoring.

Note: The discovery will fail if there is a mismatch in the host name of the Siebel server and the host name discovered in Enterprise Manager (EM).

There is a possibility of a mismatch in complex Siebel network configurations such as virtual host or cluster Siebel servers/gateways, where the Siebel host mentioned in Siebel configuration does not match with the host monitored in EM. In such cases, the `siebelserverconfig.xml` file provides mapping between these hosts.

The `siebelserverconfig.xml` file should be used to add mapping host entries for discovery. The file can be found in `<agent_inst>/sieblserverconfig` directory. The `siebelserverconfig` directory is not available in a fresh plug-in deployment. It will be created after the first siebel target discovery. Thereby, Siebel servers with mismatched hosts will not be discovered in the first discovery attempt.

3.4 Updating the Siebel Enterprise

After you add or remove Siebel servers or server components from your Siebel Enterprise, you must update the Enterprise, and check the relations between the Siebel Enterprise and Enterprise Manager targets.

Perform the following steps to update the Enterprise:

1. From the Targets menu of the Enterprise Manager Console, select **Siebel**.
2. On the Siebel Enterprise Home page, in the General section, click **Update Enterprise.**

   Clicking Update Enterprise gives you the following options:

   - **Update Enterprise,** which updates all components in an enterprise, whether components are in manual start mode, or start 'auto' mode.
   - **Update Enterprise with Components in Start Mode 'Auto',** which updates only those components in an enterprise which are in start 'auto' mode.

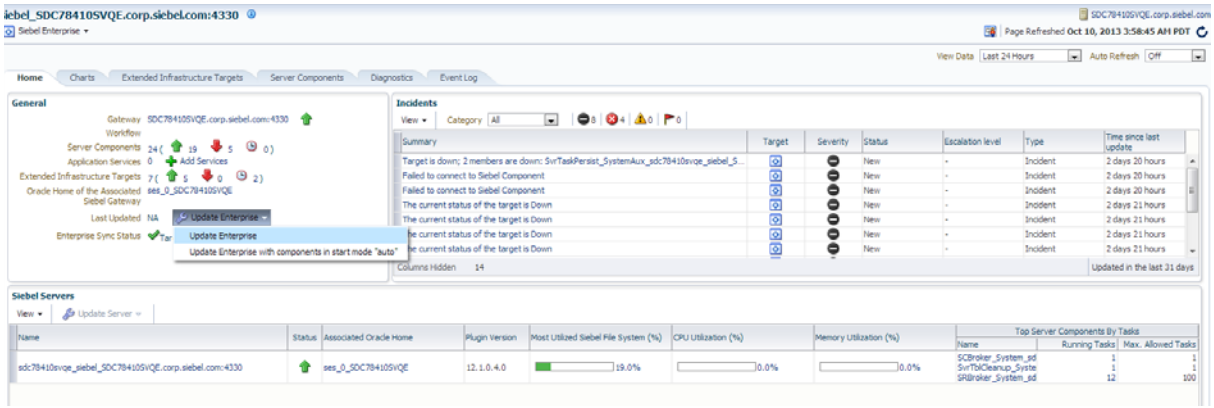
   The Siebel Enterprise Home page appears, as shown in Figure 3–2.
3. Review the report that is displayed, and click **Close.**

   Clicking Close opens the **Configuration Change Report** page, with the details on the report of the relations between Siebel Enterprise and Enterprise Manager targets.

4. After reviewing the report, click **Update** to update the Enterprise.

   If the report displays errors, click **Cancel.**

Figure 3–2 Siebel Enterprise Home Page



3.5 Updating the Siebel Servers

To synchronize the topology for Siebel Servers, perform the following steps:

1. From the Targets menu, select **Siebel**.
2. Click Siebel Server target, and on the Siebel Server home page, in the **General** section, click **Update Server.**

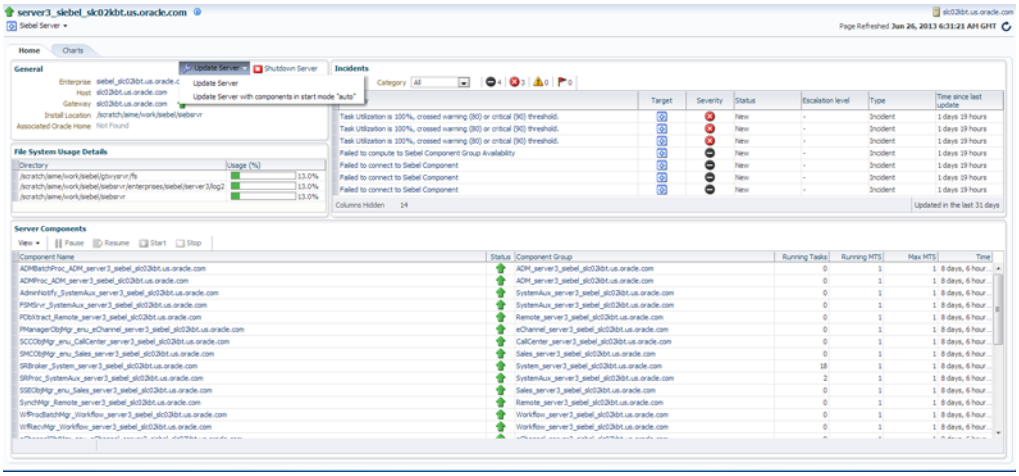
   Clicking Update Server gives you the following options:

   - **Update Server,** which updates all components in a server, whether components are in manual start mode, or start 'auto' mode.
   - **Update Server with Components in Start Mode 'Auto',** which updates only those components in a server which are in start 'auto' mode.

   The Siebel Server Home page appears, as shown in

3. Review the report that is displayed, and click **Close.**

Figure 3–3 Siebel Server Home Page



3.6 Siebel Compliance Standards

To associate Siebel Compliance Standards, follow these steps:

1. From the Siebel Enterprise Home page, select **Siebel Enterprise,** then select **Compliance,** and select **Standard Associations.**
2. On the Standard Associations page, click **Edit Association Settings.**
3. On the Target Compliance Standard Association page, click **Add.**
4. On the Compliance Standards window, select the compliance standard to be associated, and click **OK.**

To check the rules associated, follow these steps:

1. From the Siebel Enterprise Home page, select **Siebel Enterprise,** then select **Compliance,** and select **Results.**
2. On the Compliance Results page, check the rules associated under the compliance standards.

3.7 Adding Non-Siebel Targets to an Existing Siebel Enterprise Target

To add Siebel targets to a Siebel Enterprise target, you can use the **Update Now** functionality available on the Siebel Enterprise home page.

To add a non-Siebel target to a Siebel Enterprise target:

1. Go to the Oracle Technology Network (OTN) site:

   http://www.oracle.com/us/products/enterprise-manager/index.html

2. Download the appropriate third party plug-in, and create the respective target in Enterprise Manager.
3. From the **Targets** menu of the Cloud Control console, select **Siebel**.
4. In the Enterprises tab, click the name of the Siebel Enterprise target to which you want to add the non-Siebel target.
5. Select the Extended Infrastructure Targets tab, then click **Add.**
6. Search for and select the required non-Siebel target, then click **Select.**

3.8 Defining Manually Added Non-Siebel Targets as Critical Targets for a Service

After manually adding non-Siebel targets to an enterprise, if you want to make these targets available to the Root Cause Analysis functionality available in Enterprise Manager, you need to tag these targets as Key Components.

Perform the following steps to make your non-Siebel target a critical target for any Siebel application service:

1. From the **Targets** menu of the Cloud Control console, select **Siebel**.
2. Select **Services.**
3. Click the name of the Siebel application service that the required non-Siebel target is added to.

   The Siebel Application Service home page appears.

4. From the **Siebel Application Service** menu, select **Administration,** then select **System Configuration.**
5. In the Key Component column, select the required non-Siebel target. Click **OK.**

3.9 Removing Servers or Components From an Existing Enterprise

After creating a Siebel Enterprise target, you can manually remove individual servers or components from the enterprise. However, this deletes the respective target information from the Enterprise Manager repository.

After this entry is deleted, Enterprise Manager does not monitor this target anymore. If you perform a manual resynchronization for this enterprise, Enterprise Manager includes the component in the new system topology.

The two possible paths for manually removing components from an existing enterprise are:

- From the All Targets page, move your mouse over the server or component you want to delete, right-click, select **Target Setup** from the menu, then **Remove Target**.

- From the Siebel home page, select the **Enterprise** tab, and then select the enterprise you want to remove. Select the radio button next to the enterprise name, then click the **Remove** button.

  This option removes the Siebel server, targets, and all the enterprise components.

3.10 Patching Siebel Targets

This section describes how to patch Siebel targets in Cloud Control using patch plans. It consists of the following sections:

- Prerequisites for Patching Siebel Targets
- Procedure for Patching Siebel Targets

Note: Only Siebel Server and Siebel Gateway Server targets are supported for patching in Cloud Control.

3.10.1 Prerequisites for Patching Siebel Targets

Ensure that you meet the following prerequisites:

- The Siebel Server and the Siebel Gateway Server targets that you want to patch are discovered in Cloud Control.
- You must have the 12.1.0.5 Enterprise Manager for Oracle Siebel plug-in deployed in your system.

  For information on how to deploy a new plug-in or upgrade an existing plug-in, see *Oracle Enterprise Manager Cloud Control Administrator's Guide.*

3.10.2 Procedure for Patching Siebel Targets

Follow these steps to patch your Siebel Server and Siebel Gateway Server targets:

1. Create a patch plan and add the patches that you want to apply on your Siebel Server and Siebel Gateway Server targets.

   For information on creating a patch plan, see *Oracle Enterprise Manager Lifecycle Management Administrator's Guide.*

2. Analyze and deploy the patch plan that you created.

   For information on analyzing and deploying a patch plan, see *Oracle Enterprise Manager Lifecycle Management Administrator's Guide.*

3.11 User Roles and Privileges

The recommended privileges for the Agent user on the Siebel hosts are:

- Read permissions for the following files:
  - all the Siebel files
  - vpd.properties
  - siebenv.sh (in non windows env)
  - siebns.dat
- Should be a part of the Siebel group

- Execute permissions for the following:
  - The server manager command. For example:

    ```
    /bin/sh -c ". $siebel_location/siebenv.sh; exec $siebel_
    location/bin/srvrmgr -g <gateway_name> -e <enterprise_name> -s
    <server_name> -u <user_id> -p <password>"
    ```

  - The `odbcsql` command from the server host. For example:

    ```
    /bin/sh -c ". $siebel_location/siebenv.sh; exec $siebel_
    location/bin/odbcsql /s <server_name> /u <user_id> /p <password>"
    ```

To understand the roles and privileges for an OEM user refer to *Configuring Privileges and Role Authorization* in the *Oracle Enterprise Manager Cloud Control Security Guide.*

The out-of-the-box Enterprise Manager roles to manage plug-ins are:

- EM_PLUGIN_OMS_ADMIN: Enables you to manage the lifecycle of plug-ins on Management Server instances.
- EM_PLUGIN_AGENT_ADMIN: Enables you to manage the lifecycle of plug-ins on Management Agents.
- EM_PLUGIN_USER: Enables you to view the plug-in lifecycle console.

4

Creating Siebel Service Targets

This chapter provides procedures for the following topics:

- Creating Siebel Application Services
- Adding a Siebel Service for a Siebel Application
- Removing a Siebel Service from a Siebel Hierarchy

4.1 Creating Siebel Application Services

To create Siebel application services, perform the following steps:

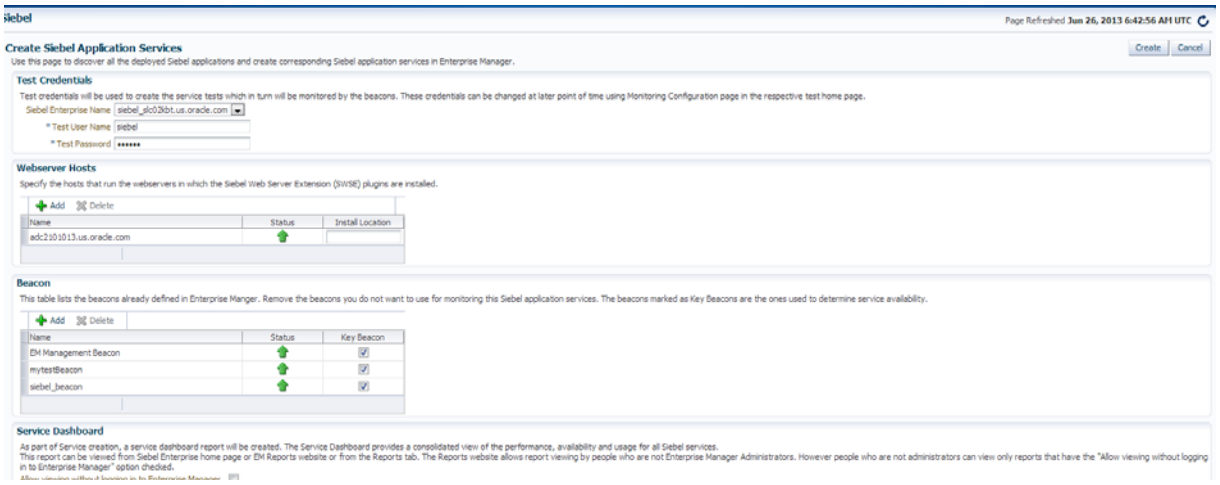
1. From the **Targets** menu of the Enterprise Manager Console, select **Siebel**.
2. Click the **Services** tab, and then click **Add.**

   The Create Siebel Application Services page appears, as shown in Figure 4–1.
3. In the **Test Credentials** section, specify the Siebel service test credentials.
4. Click **Add** on the **Webserver Hosts** tab, to add Webserver hosts.
5. Click **Add** on the **Beacons** tab, to add existing beacons.

   You can define the beacons that will monitor this service hierarchy by clicking the check boxes located in the **Key Beacons** column. Additionally, you can create, add, or delete beacons by using the **Add**, **Create**, and **Delete** buttons. If your Siebel deployment includes High Interactivity applications, such as Call Center, add only the Windows beacons.
6. Click **Add**.

   The progress page notifies you when the Siebel application services are created.

Figure 4–1 Create Siebel Application Services Page



4.2 Adding a Siebel Service for a Siebel Application

Before proceeding, note the following advisory information:

- If the application you are recording uses ActiveX objects, pre-load the objects into your Internet Explorer browsers. To do this, log into the application, then log out of the application before starting your recording. You need to do this for each desktop where you want to record, as well as each beacon that is to monitor the transaction you are recording.
- For High Interactive (HI) applications, you must use Internet Explorer and perform the recording of the transactions in the Windows environment.
- If you are defining a service for an HI application, when the transactions page appears during the configuration process, select the **Beacon Running in Windows** option.

To add a Siebel service for a Siebel application, perform the following steps:

1. From the **Targets** menu of the Cloud Control console, select **Siebel**.
2. Select **Services.**
3. For **Siebel Service Type,** select the type of the Siebel service that you want to add, and for **Siebel Enterprise,** select the Siebel Enterprise to which you want to add the Siebel service.
4. Click **Create**.

The Configuration Wizard appears and leads you through the configuration steps.

To make the newly added service visible at the **Siebel** tab:

1. Select the **Targets** menu, and then select **Siebel**.

2. From the **Services** tab, select **Application Services**.
3. Select the appropriate aggregate service and click **Configure**.
4. From the **Subservices** section of the page, click **Add,** and select the newly added service.

   The newly added service is visible on the **Siebel** home page.

4.3 Removing a Siebel Service from a Siebel Hierarchy

To remove a Siebel service from an existing Siebel hierarchy:

1. From the **Targets** menu, select **Siebel**.
2. From the **Services** tab, Select the Siebel service you want to remove and click **Remove**.

   The Siebel service is now removed.

5

About Siebel Transactions

This chapter provides procedures for the following topics:

- Typical Siebel Transactions
- Recording Transactions and Testing Availability and Performance
- Adding a Siebel HI Test with Transaction Groups to an Existing Service
- Using OATS to Record and Playback Siebel Transactions

5.1 Typical Siebel Transactions

A Siebel transaction is a series of user actions on a Siebel application. In Enterprise Manager, each user action is referred to as a **step.** Each step can contain multiple related steps.

A typical Siebel transaction might consist of the following steps:

1. Open a browser and enter the URL for the service you want to access.
2. Click the **Sign In** link. The Sign In page appears.
3. Enter a user name and password, and click **OK.**

   At this point the application performs a series of actions that range from authenticating your credentials to verifying the privileges you have.

   The application displays the functionality available for you.
4. Log out.

Note: Enterprise Manager Cloud Control creates a test named "Login Test" after the service discovery is complete. By default, this default test is designed to use siebel and siebel as the operating system username and password, respectively. If you do not have an account with siebel and siebel as the credentials on the beacon host, create the account. Alternatively, edit the default test to set credentials that match with an existing account on the beacon host.

If the operating system credentials provided are incorrect, the test appears in a pending state.

5.2 Recording Transactions and Testing Availability and Performance

You can record the steps of a particular transaction and store them in the repository. You can then run them to test the availability and performance of your Siebel application.

For example, you can create a transaction using the preceding steps and call it `Typical Login`. You can then program the appropriate components to run the transaction automatically. The beacon, a component of the Agent, acts as a client robot and is used to run your recorded transactions at predefined time intervals from strategic locations across your Wide Area Network (WAN).

Beacons are not installed automatically on the Management Agents; they have to be created. For monitoring Siebel High Interactive Applications, the administrator needs to create a beacon on an Oracle Windows Agent.

The availability and performance data that beacons collect during service tests include whether a test is successful and the application is available, and the response time of application screens during a given service test.

5.3 Adding a Siebel HI Test with Transaction Groups to an Existing Service

Before proceeding, ensure that you have already added the Siebel service using the instructions in Section 4.2, "Adding a Siebel Service for a Siebel Application".

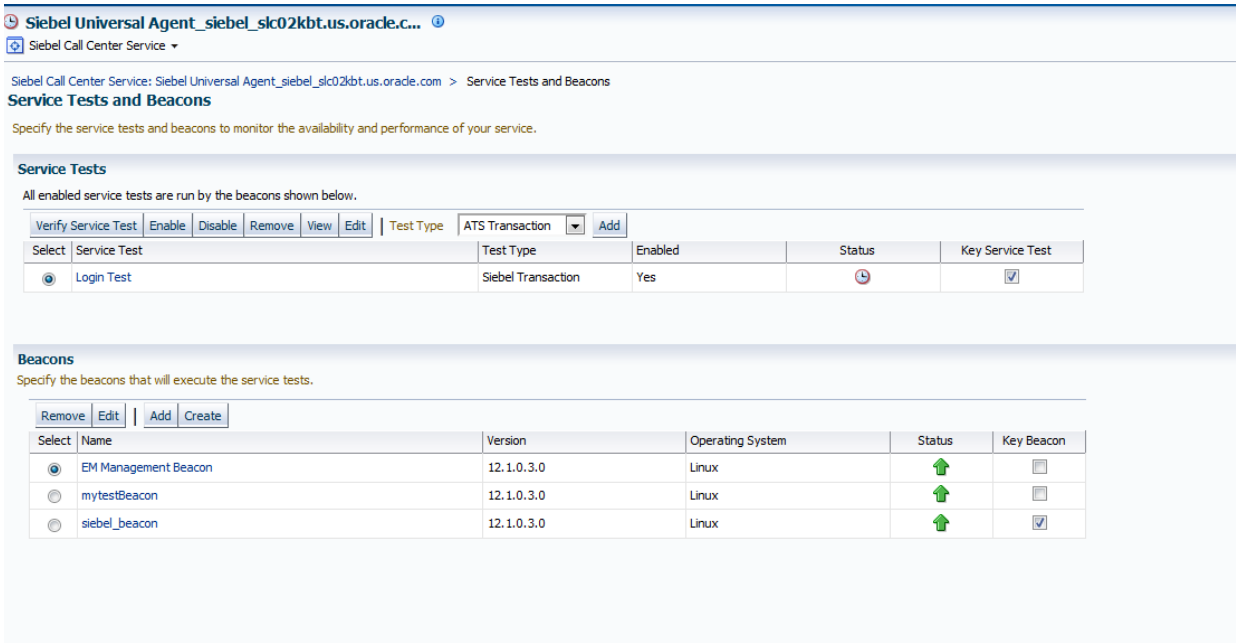
Besides recording the steps of a transaction, you can also group them to create a separate, logical entity. If you do not group the steps, Enterprise Manager groups them automatically under the "Generic" category.

To record transactions with groups, follow these steps:

1. In Enterprise Manager Cloud Control, click **Targets**, then click **Siebel**.
2. On the Siebel page, from the **View** list, select **Application Service**. Enterprise Manager lists all the Siebel services being monitored.
3. Click the name of a Siebel Call Center Service, Siebel Sales Service, or a Siebel Marketing Service. Enterprise Manager displays the Home page of the selected service.
4. Click the **Monitoring Configuration** tab.
5. On the Monitoring Configuration page, click **Service Tests and Beacons**.

   The Service Tests and Beacons page appears, as shown in Figure 5–1.

Figure 5–1 Service Tests and Beacons Page



6. In the Service Tests section on the Service Tests and Beacons page, from the **Test Type** list, select **Siebel Transaction** and click **Add**.
7. On the Create Service Test page, specify a name for the service test, specify the operating system user name and password of the beacon host, then click **Go**.
   a. Specify a name for the transaction you are about to record.
   b. In the Test Parameters section, specify the operating system user name and password of the beacon host, and click **Go**.
8. On the following page, click **Start** to start recording the transaction. Enterprise Manager displays two windows, one for accessing the Siebel application where actions can be performed, and another for creating groups.
9. In the main, larger window, access the Siebel application where you want to record your actions.
10. Log in to the Siebel application using your credentials.
11. After logging in, in the smaller window, specify a name for the group and click **Create**. The log-in actions you performed are recorded under the group name you specify here.
12. Similarly, in the larger window, perform other actions in the Siebel application, and for these actions, in the smaller window, create a group.
13. Log out from the larger window.
14. After you are done with the recording, return to the Siebel Transaction page and click **Stop** to stop recording this transaction, then click **Continue**. Enterprise Manager closes the two windows that were opened for recording the transaction.

15. The page that follows shows the recorded transaction with the grouping of actions that were performed in the Siebel application. Click **Continue**.
16. On the Create Service Test page, go to the Test Parameters section. From the **Collection Granularity** list, select the granularity you want to use, then click **OK**.

5.4 Using OATS to Record and Playback Siebel Transactions

For details on how to create ATS load testing scripts, please refer to *Oracle® Functional Testing OpenScript User's Guide*. For details on creating an ATS test type, refer to the Enterprise Manager Online Help.

6

Siebel Performance Diagnostics

This chapter provides procedures for the following topics:

- Features of Siebel Diagnostics
- Types of Diagnostic Reports
- Prerequisites for Diagnostic Reports
- Creating Diagnostic Reports
- Viewing Server Performance Reports
- Viewing User Performance Reports

6.1 Features of Siebel Diagnostics

Siebel Performance Diagnostics provide the following features:

- **Server Performance Analysis** — Enables you to diagnose and identify Siebel Server performance issues, one server at a time, by providing access to response time, CPU usage, and memory data for selected server components. You can create and generate reports for analysis.
- **User Performance Analysis** — Enables you to diagnose and identify user session performance issues for requests that a specific user initiates.

You can create and generate reports for server and user performance for analysis.

6.2 Types of Diagnostic Reports

You can create a Server Performance report or User Performance report to analyze the performance of the server and components, and of individual users.

A Server Performance report enables you to analyze the performance of one or all Siebel components of a server, and provides information of requests in terms of response time, CPU time, and memory consumption for each request.

A User Performance report enables you to analyze the performance for sessions of a specific user, provides details on the response time, and permits drill-downs into individual user requests.

A scenario for each report is provided below, which helps you understand when you want to create and analyze reports.

6.2.1 Server Performance Report Scenario

Consider a situation where the general performance of the entire application is slow. To remedy this, the administrator must first enable SARM for all the components running on a given server. Next, the administrator logs in to Enterprise Manager and uses the Diagnostics Reports page to analyze the collected SARM data on this server and/or components to identify the performance bottleneck.

6.2.2 User Performance Report Scenario

Consider a situation where users report performance issues with their application sessions. To remedy this situation, the administrator must first enable SARM for the component. Next, the administrator logs in to Enterprise Manager and uses the Diagnostics Reports page to analyze the collected SARM data for a particular user to identify the performance bottleneck.

6.3 Prerequisites for Diagnostic Reports

To monitor Siebel performance, you need to manually enable Siebel Application Response Measurement (SARM). For information on enabling SARM manually, refer to the prerequisites section in Chapter 2.

You then have to configure the SARM logging parameters and enable SARM for individual Siebel components from the Diagnostic Configuration page in Enterprise Manager. Refer to Table 6–1 for descriptions of the parameters for SARM configuration and diagnostic report generation.

Note: Ensure that the preferred credentials for the host target, and the Server Manager credentials for all the Siebel Servers that are a part of the Enterprise are set.

To set the preferred host credentials, follow these steps:

1. From the **Setup** menu, select **Security,** then select **Preferred Credentials.**
2. On the Preferred Credentials page, select **Host** for **Target Type,** then click **Manage Preferred Credentials.**
3. On the **Host Preferred Credentials** page, in the **Default Preferred Credentials** section, select the credential set from the table, then click **Set.** Select the required named credential, or create a new named credential. Click **Save.**

To set the Server Manager credentials, follow these steps:

1. From the **Setup** menu, select **Security,** then select **Preferred Credentials.**
2. On the Preferred Credentials page, select **Siebel Server** for **Target Type,** then click **Manage Preferred Credentials.**
3. On the **Siebel Server Preferred Credentials** page, in the **Default Preferred Credentials** section, select the credential set from the table, then click **Set.** Select the required named credential, or create a new named credential. Click **Save.**

Table 6–1 SARM Parameters

Parameter	Description
Logging Level	Displays the level of logging information required for SARM configuration. The values are: 1 — Select this level for general performance monitoring. At this level, SARM collects information such as process and component boundaries, third-party software calls, database measurements, workflow execution, and script performance. 2 — Select this level for problem diagnostics. This level captures the information at level 1 as well as detailed information such as steps of workflow execution, construction of large objects, reading of large files, and crossing significant architectural areas.
logdir	When creating the Siebel Diagnostics Performance Report in Enterprise Manager, the *.sarm files are located in the logdir location. If the Siebel logdir parameter is null, the log location defaults to: <SIEBEL_ROOT>/siebsrvr/log If this is not the valid location, and for example, the following location is desired ... <SIEBEL_ROOT>/siebsrvr/enterprises/<enterprise_name>/<siebel_server_name>/log ... either define the logdir parameter at the Siebel side or update the Monitoring Configuration at the Siebel Server Home Page > Related Links - Monitoring Configuration filesystem:logdir parameter.
File Max Number	Indicates the maximum number of SARM files maintained for each Siebel component. When all files are full (that is, all files reach the size specified as File Size), the file that was created first is removed and is replaced by a new file. The range must be between 1 and 256. The default value is 4.
Buffer Size (KB)	Indicates the memory available to cache SARM data by the Siebel processes (that is, the internal buffer to be used by the SARM logger). The default buffer size is 5,000,000 bytes. **Note:** Increasing the buffer size increases memory consumption, but may decrease I/O activity, as buffer flushes are minimized.
File Size (KB)	Indicates the maximum size of an individual SARM file. Upon reaching the specified file size, SARM creates a new file and starts storing data in the new file. The default size is 15,000,000 bytes (15 MB), and there is no upper limit to the file size.
Interval (min)	Specifies the maximum amount of time, in minutes, between writing the SARM buffer to the disk. For environments with minimal activity, this parameter determines the frequency to write files to the disk. The value should be between 1 and 30 (minutes). The default value is 3.

Note: The configuration of the SARM parameters depends on the diagnostic requirements. The more disk space made available for SARM logging (determined by File Max Count and File Size), the further back in time you can generate data for your reports.

After setting the SARM parameters, you can enable the diagnostic configuration for Siebel components by selecting the **Enable SARM** option in the Enable/Disable section of the Diagnostic Configuration page.

6.4 Creating Diagnostic Reports

Diagnostic reports help you analyze how user requests have been processed, and also analyze how servers have performed requests. You can create Server Performance and User Performance reports.

A Server Performance report enables you to analyze the performance of a server and provides information of requests in terms of response time and CPU usage time for each request. While creating such a report, you can select the Siebel Server for which you want the performance report.

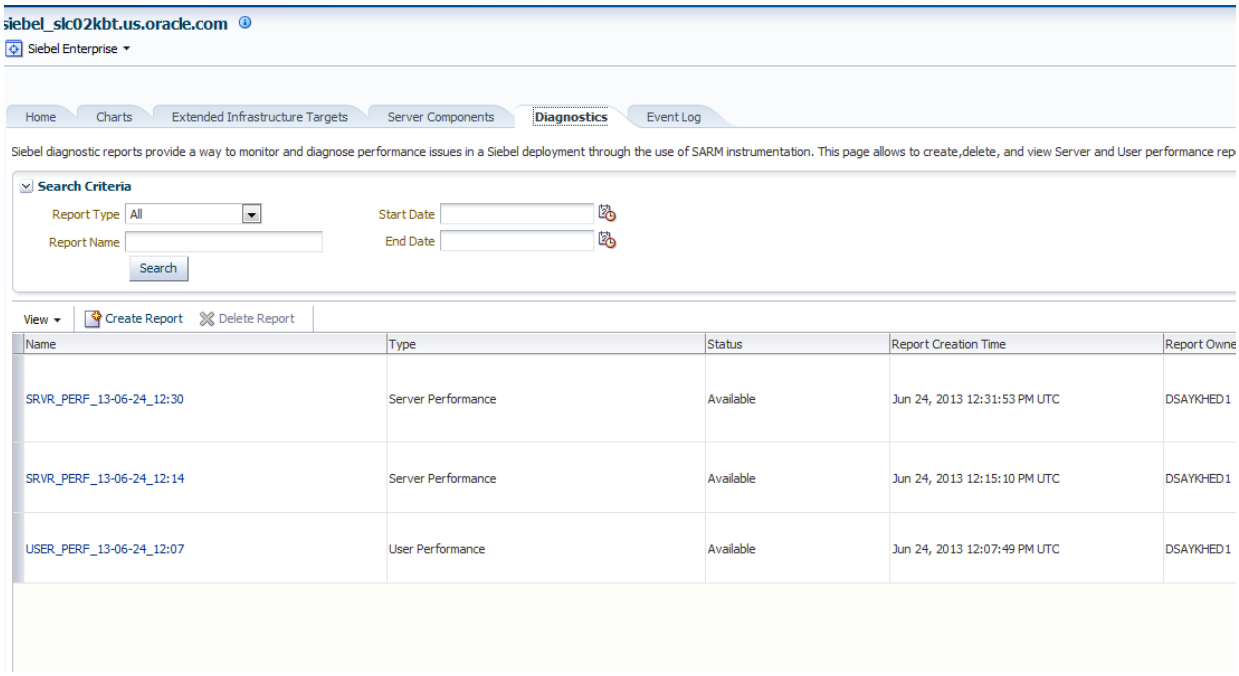
A User Performance report enables you to analyze the performance of a user and provides details on the response time for various requests by the user.

To create a User Performance report or Server Performance Report:

1. From the **Targets** menu, select **Siebel.**
2. From the **Siebel Enterprise Home** page, click the **Diagnostics** tab.

   Figure 6–1 displays the Diagnostics Reports Page.

Figure 6–1 Diagnostics Reports Page



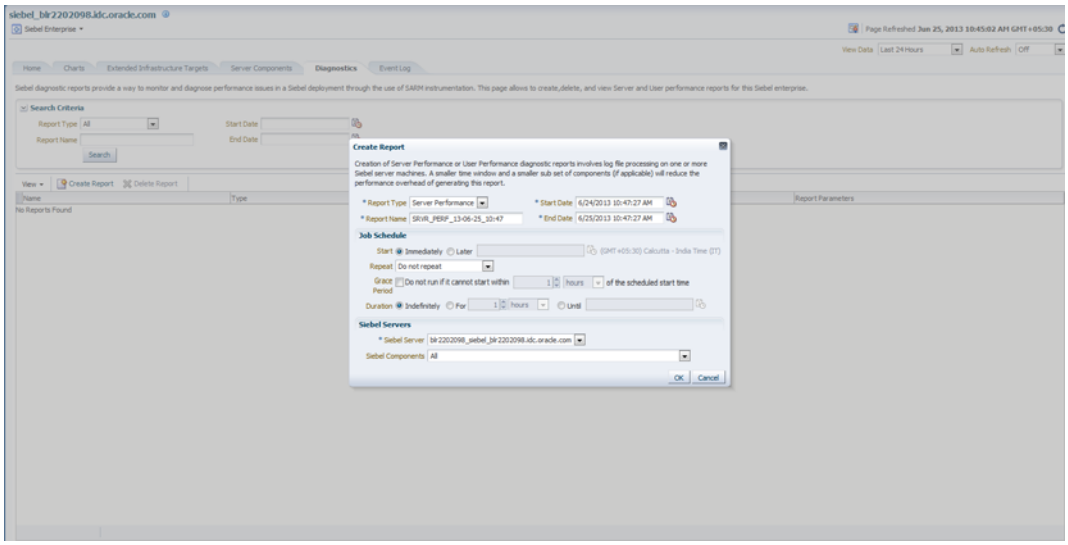
3. Click **Create Report**.

   Clicking on Create Report opens the Create Report Wizard. Figure 6–2 displays the Create Report wizard, which enables you to create a Server Performance or User Performance report.

4. Select the report type, Server Performance Report or User Performance Report, specify values for the fields, and click **OK**.

   There is also the option of scheduling reports for a later time or later date.

Figure 6–2 Create Report Wizard



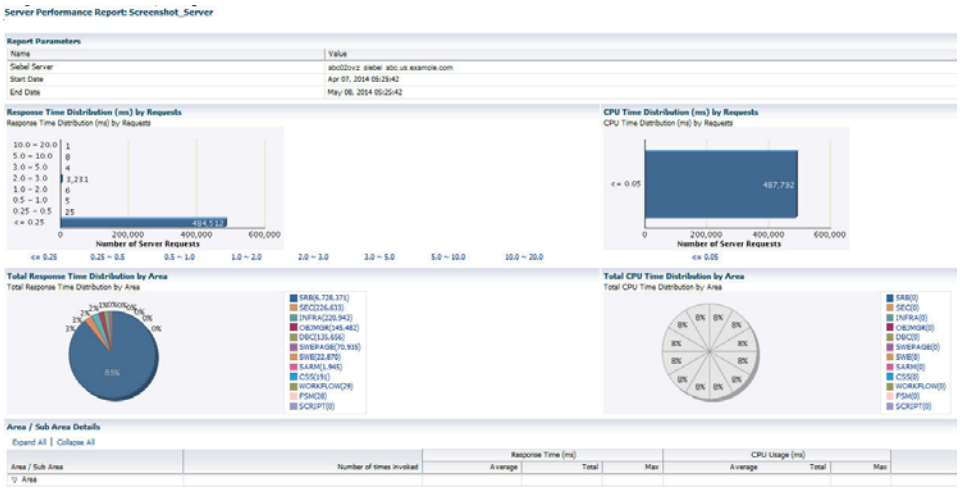
6.5 Viewing Server Performance Reports

Server Performance reports enable you to analyze different servers and server components, one server at a time. The following sections describe how to use Server Performance reports to monitor, analyze, and diagnose server and server component data.

6.5.1 Server Performance Report <Report Name> Page

To view this page (shown in Figure 6–3), from the Diagnostics Reports page, click the name of the Server Performance report you want to view.

Figure 6–3 Server Performance Report - Example 1



This page contains the following information:

- **Report Parameters** — Displays report parameters for the server and the value for each.

- **SARM Response Time** — Displays the response time to process requests measured through the Siebel Application Response Measurement (SARM) facility. SARM is a mechanism for capturing performance data of Siebel Applications at key locations within the Siebel Server infrastructure. Refer to the *System Monitoring and Diagnostic Guide* included in the Siebel documentation for details.

  This chart helps you understand the response time to process requests by the Siebel server. The information is displayed in a histogram. Basically, the chart displays buckets in a time range and displays the requests processed for each bucket. You can click the bucket to drill down and view more details from the Server Performance <Report Name> <Bucket> page.

  Note: When you click one of the two most expensive buckets (that is, the buckets with the most expensive requests in terms of Response Time or CPU Time consumption), the page is displayed instantly as the data is pre-fetched. When you click other buckets, the same page is displayed, but only after the job to retrieve SARM data from the log files is completed.

- **CPU Time** — Displays the CPU time consumed by requests measured through the SARM network. This helps you understand the CPU time consumed to process requests by the Siebel server. The information is displayed in a histogram. The chart displays buckets in a time range and displays the requests processed for each bucket. You can click the bucket to drill down and view more details from the Server Performance - <Report Name> <Bucket> page.

- **Area / Sub Area Distribution** — Displays performance details for areas or sub-areas of the Siebel server. SARM functions based on points or areas where performance information is generated; for example, the start and end of each database operation. Area specifies the broad area or software layer where a request is processed. For example:

  – **DBC (Database Connector)**: This database layer tracks the percentage of time for requests in database processing.

  – **INFRA (Infrastructure Area)**: This infrastructure area handles all functions related to networking, memory management, and so on.

  – **SWE (Siebel Web Engine)**: This area is active when actual Web pages are built; for example, during assembly of HTML output.

  – **OBJMGR (Object Manager)**: This layer handles object relational mapping, and is where most of the actual application code is executed.

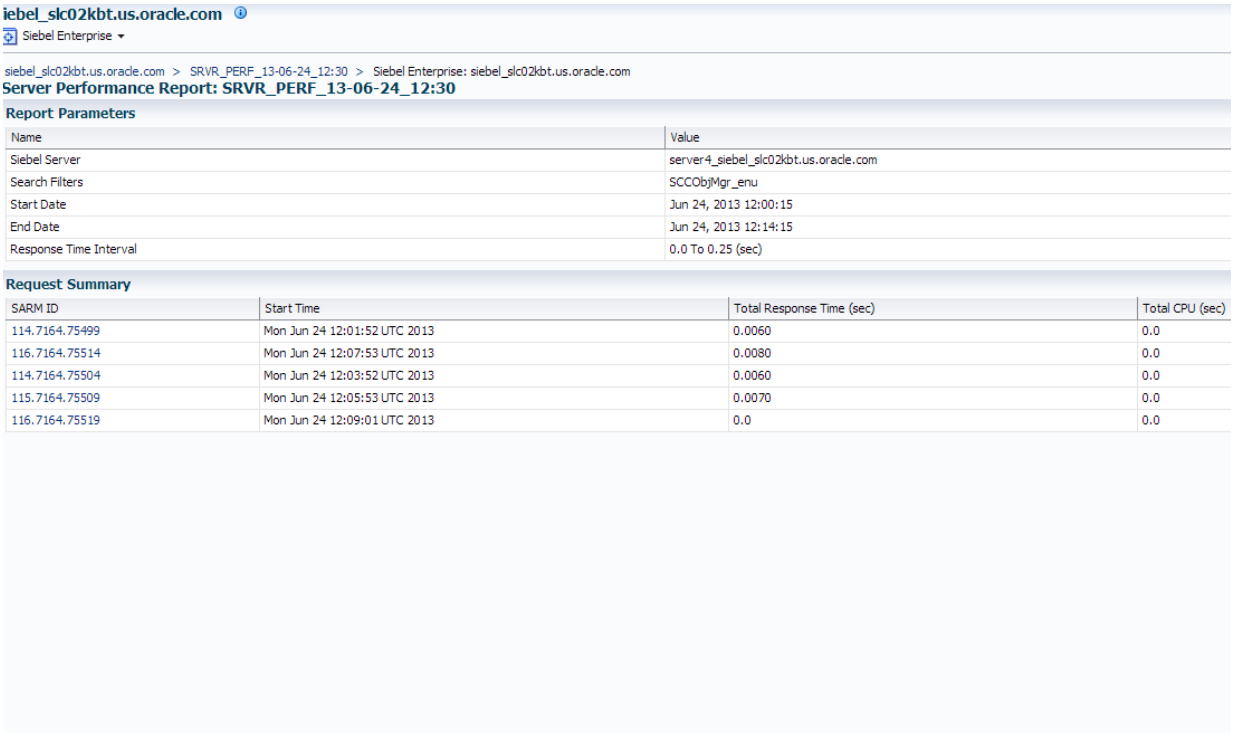
  – **SARM**: This is the performance diagnostics area.

  Also, each of these areas has certain sub-areas; for example, DBC_EXECUTE, DBC_FETCH, and others in the DBC area that permit tracking of performance data at a higher level of granularity.

6.5.2 Server Performance Report <Report Name> <Bucket> Page

To view this page (shown in Figure 6–4), from the Server Performance Report <Report Name> Page, click a bucket in the SARM Response Time or CPU Time page.

Figure 6–4 Server Performance Report - Example 2



iebel_slc02kbt.us.oracle.com

Siebel Enterprise

siebel_slc02kbt.us.oracle.com > SRVR_PERF_13-06-24_12:30 > Siebel Enterprise: siebel_slc02kbt.us.oracle.com

Server Performance Report: SRVR_PERF_13-06-24_12:30

Report Parameters

Name	Value
Siebel Server	server4_siebel_slc02kbt.us.oracle.com
Search Filters	SCCObjMgr_enu
Start Date	Jun 24, 2013 12:00:15
End Date	Jun 24, 2013 12:14:15
Response Time Interval	0.0 To 0.25 (sec)

Request Summary

SARM ID	Start Time	Total Response Time (sec)	Total CPU (sec)
114.7164.75499	Mon Jun 24 12:01:52 UTC 2013	0.0060	0.0
116.7164.75514	Mon Jun 24 12:07:53 UTC 2013	0.0080	0.0
114.7164.75504	Mon Jun 24 12:03:52 UTC 2013	0.0060	0.0
115.7164.75509	Mon Jun 24 12:05:53 UTC 2013	0.0070	0.0
116.7164.75519	Mon Jun 24 12:09:01 UTC 2013	0.0	0.0

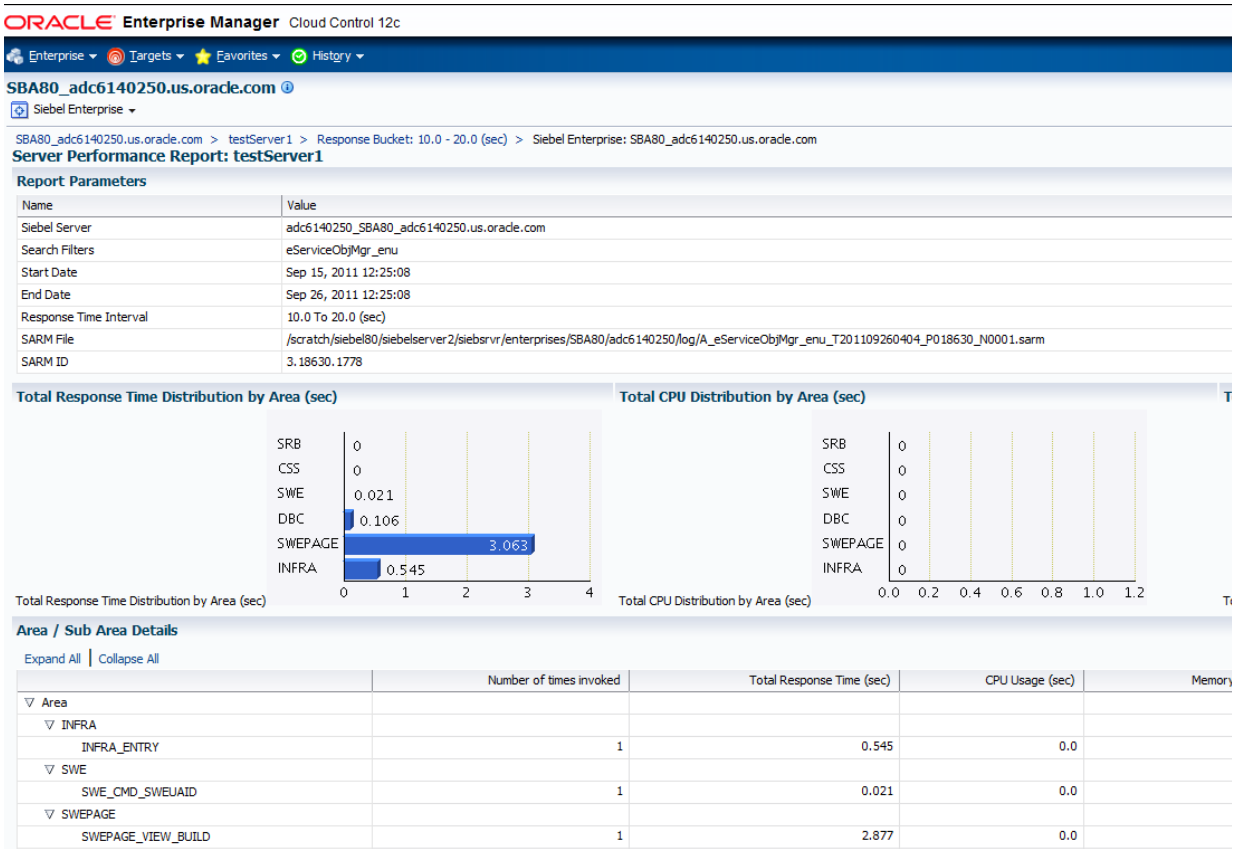
This page contains the following information:

- **Report Parameters** — Displays the report parameters for the server and the value for each.
- **Request Summary** — Displays the summary of requests the Siebel server processes as measured by the Siebel Application Response Measurement (SARM) network. Click **SARM ID** in this page to drill down and view details of the percentage of resource consumed in each of the layers involved in processing a request. Enterprise Manager displays the Server Performance Report <Report Name> <Request ID > page.

6.5.3 Server Performance Report <Report Name> <Request ID> Page

To view this page (shown in Figure 6–5), click SARM ID in the Request Summary section of the Server Performance Report <Report Name> <Bucket> page. You can use this page to view details about SARM requests serviced by the server.

Figure 6–5 Server Performance Report - Example 3



The details displayed in this page are:

- **Report Parameters** — Displays the report parameters for the server and the value for each.
- **Total Response Time Distribution by Area** — Displays the response time by area measured by the SARM framework. This helps you understand the response time taken by each area of the Siebel server to process requests.
- **Total Memory Distribution by Area** — Displays the memory distribution by area measured by the SARM framework. This helps you understand the memory distribution among various areas of the Siebel server while processing requests.
- **Total CPU Distribution by Area** — Displays the CPU distribution by area measured by the SARM framework. You can analyze the CPU time taken by each area of the Siebel server.
- **Area / Sub Area Distribution Section** — Displays performance details for areas or sub-areas of the Siebel server. SARM functions based on points or areas where performance information is generated; for example, the start and end of each database operation. Area specifies the broad area or software layer where a request is processed.

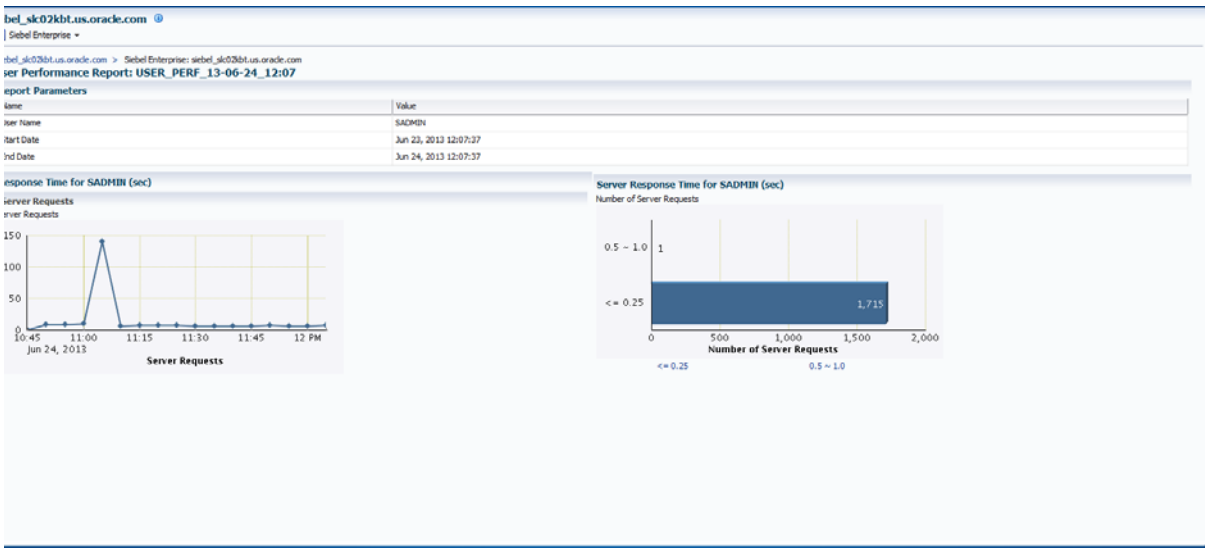
6.6 Viewing User Performance Reports

User Performance reports enable you to analyze the performance for sessions of a specific user, providing details on the response time and allowing drill-downs into individual user requests. The following sections describe how to use the User Performance reports to monitor, analyze, and diagnose user data.

6.6.1 User Performance Report <Report Name> Page

To view this page (shown in Figure 6–6), from the Diagnostics Reports page, click the name of the User Performance report you want to view.

Figure 6–6 User Performance Report - Example 1



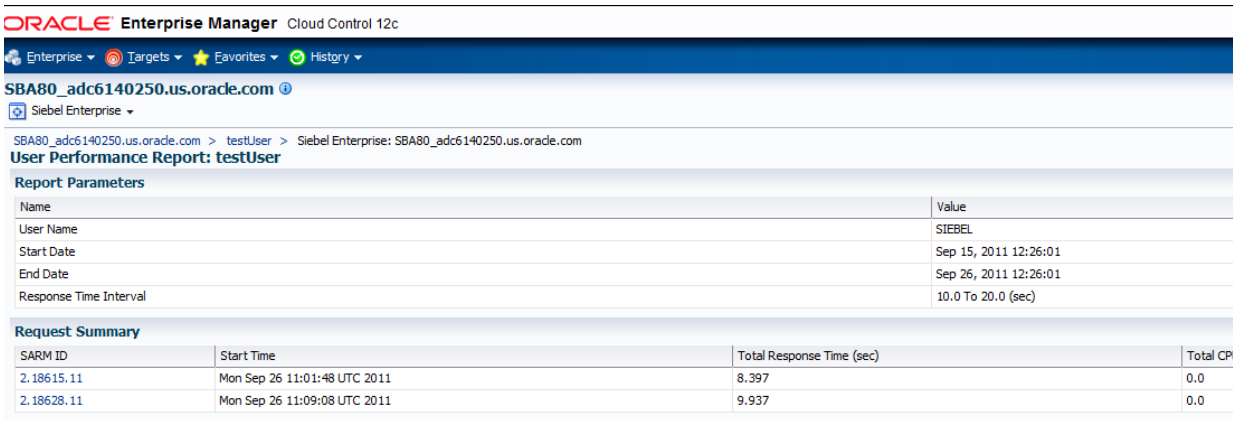
This page contains the following information:

- **Reports Parameters** — Displays report parameters for the user and the value for each.
- **Response Time for 'User'** — Displays the response time to process the user's requests measured through the Siebel Application Response Measurement (SARM) network. This helps you understand the response time to process requests by the user. It provides a trend and overview of the response time for the selected user and the specified time; that is, the chart displays requests from oldest to the most recent from right to left.
- **Histograms of Server Response Time for 'User'** — Displays the server response time to process the user's requests. This chart helps you understand the response time to process user requests by the Siebel server. The information is displayed in a histogram. Basically, the chart displays buckets in a time range and displays the requests processed for each bucket. You can click the bucket to drill down and view more details from the User Performance <Report Name> <Bucket> page.

6.6.2 User Performance Report <Report Name> <Bucket> Page

To view this page (shown in Figure 6–7), from the User Performance Report <Report Name> Page, click a bucket in the Histograms of Server Response Time for 'User' chart in the User Performance Report <Report Name> page.

Figure 6–7 User Performance Report - Example 2



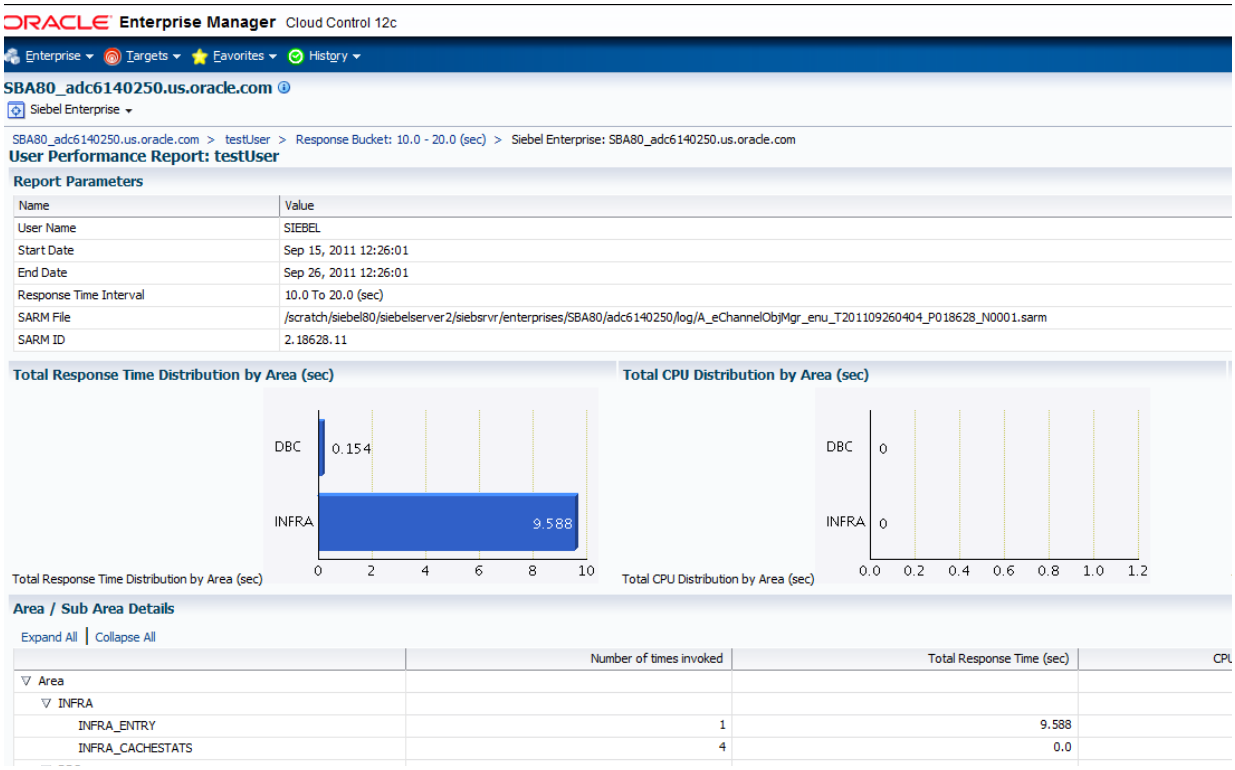
This page contains the following information:

- **Report Parameters** — Displays the report parameters for the user and the value for each.
- **Request Summary** — Displays the summary of user requests as measured by the Siebel Application Response Measurement (SARM) network. Click the **SARM ID** to drill down and view details of the percentage of resource consumed in each of the layers involved in processing a request. Enterprise Manager displays the User Performance Report <Report Name> <Request ID > page.

6.6.3 User Performance Report <Report Name> <Request ID> Page

To view this page (shown in Figure 6–8), click **SARM ID** in the Request Summary section of the User Performance Report <Report Name> <Bucket> page. You can use this page to view details about SARM requests serviced by the user.

Figure 6–8 User Performance Report - Example 3



The details displayed in this page are:

- **Report Parameters** — Displays the report parameters for the server and the value for each.
- **Total Response Time Distribution by Area** — Displays the response time by area measured by the SARM framework. This helps you understand the response time taken by each area of the Siebel server to process user requests.
- **Total Memory Distribution by Area** — Displays the memory distribution by area measured by the SARM framework. The chart displays the memory distribution among various areas of the Siebel server while processing user requests.
- **Total CPU Distribution by Area** — Displays the CPU distribution by area measured by the SARM framework. The chart displays the CPU time taken by each area of the Siebel server to process user requests.
- **Area / Sub Area Distribution Section** — Displays performance details for areas or sub areas of the Siebel server. SARM functions based on points or areas where performance information is generated; for example, the start and end of each database operation. Area specifies the broad area or software layer where a request is processed.

7

Using Siebel Workflow

This chapter provides introductory information about the Siebel Workflow tool, and also explains how to discover and monitor Siebel Workflow targets. The following topics are covered in this chapter.

- About Siebel Workflow
- Discovering and Monitoring Siebel Workflow Targets in Cloud Control

7.1 About Siebel Workflow

Siebel Workflow is an interactive software tool that enables an organization to automate handling of workflow processes. Workflow uses as its basic model the same processes that organizations use in their sales, marketing, and service departments that determine business workflow. You can use Siebel workflow to promote consistency and adherence to processes through the automatic enforcement of business policies and procedures.

Workflow is comprised of two key constructs:

- Workflow Policies, which trigger actions
- Workflow Processes, which define everything from guided user interface navigation to integration business flows

The engine is comprised of the following six server components. The first three handle Workflow Policies, and the last three handle Workflow Processes:

- **Generate Triggers (GenTrig)** — Generates triggers on the database, which initiate actions when a condition specified through a Workflow Policy is met. GenTrig is run as a batch job after Workflow Policies are updated.
- **Workflow Monitoring Agent (WorkMon)** — Executes Workflow policies. Workflow Monitor Agent monitors Workflow Policies and executes actions after the policy conditions are met.
- **Workflow Action Agent** — Processes requests logged in the action request table (S_ESCL_ACTN_REQ) for a policy group and invokes all actions linked with the Workflow Policy being processed.
- **Workflow Process Manager** — Acts as an interpreter to execute workflow processes.
- **Workflow Process Batch Manager** — Version of Workflow Process Manager that initiates Workflow Processes in batch mode.
- **Workflow Recovery Manager** — Polls the Workflow engine to check workflow instances running on the server. The Workflow Recovery Manager recovers

crashed instances and resumes instances that have been waiting beyond a due date.

7.2 Discovering and Monitoring Siebel Workflow Targets in Cloud Control

The Siebel Workflow target is automatically discovered when the Siebel Enterprise is discovered and added to Cloud Control for monitoring. Siebel Workflow is shown as a link in the General section of the Siebel Enterprise Home page in Cloud Control. You can click the link to monitor the health of the Siebel Workflow target and also view details about its processes and component groups.

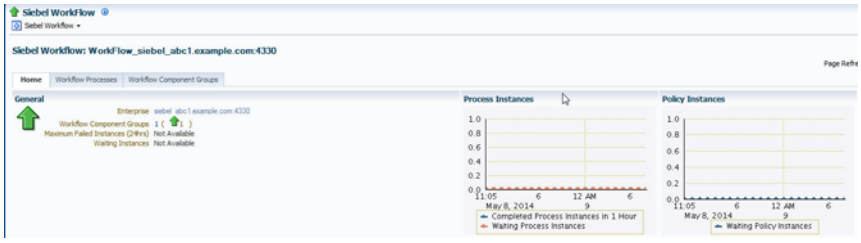
Note: If you attempt to discover Siebel Enterprise in Cloud Control when the Siebel Workflow component group is disabled in the Siebel configuration, the discovery happens successfully, but the Siebel Enterprise Home page does not show the Siebel Workflow target link in the General section.

If you enable the Siebel Workflow component group later in the Siebel configuration and want to add it to Cloud Control for monitoring, on the Siebel Enterprise Home page of Cloud Control from the General section, click **Update Enterprise**. The page refreshes and shows the link for the Siebel Workflow target. You can click it to navigate to the Siebel Workflow Home page and monitor its processes and component groups.

After the Siebel Workflow target is discovered, you can monitor its availability status, view the processing rate of workflow process and policy instances, view alerts generated, and monitor its processes and components groups. You can also access the All Metrics page of this target to view a list of metrics collected for it.

Figure 7–1 shows the Siebel Workflow page.

Figure 7–1 Siebel Workflow Page



8

Using Event Logs

This chapter provides a procedure for viewing event logs to help you analyze the events triggered or tasks performed within a user session. Using Enterprise Manager, you can view event logs for the following possibilities:

- Selected server or for all servers
- Selected component or for all components
- Particular period
- Particular user, OS ID, or task ID

8.1 Viewing Event Logs

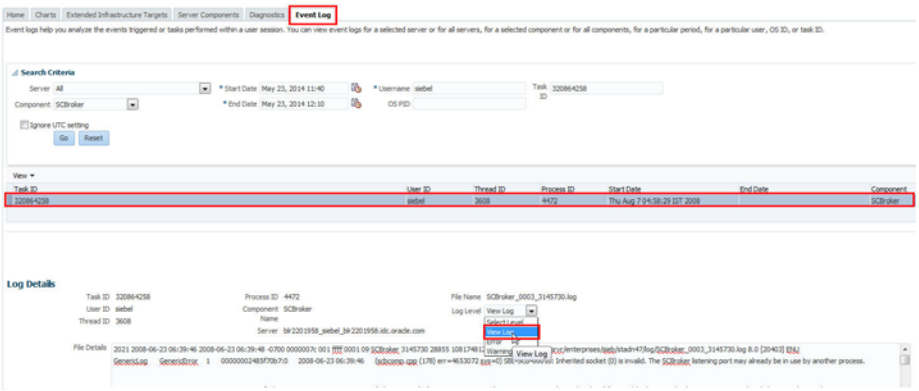
To view event logs, follow these steps:

1. From the **Targets** menu, select **Siebel**.
2. On the Siebel page, click the name of the Siebel Enterprise being monitored. Enterprise Manager displays the Siebel Enterprise Home page.
3. Click the **Event Log** tab to search and view event logs, as shown in Figure 8–1.

   Username is a mandatory field. If your search query is going to result in a large number of rows, you can specify a smaller time window. To limit the results, you can also specify OS PID or Task ID, although these are not mandatory fields.
4. On the Event Log page, select the row with the log file name to view the Log Details section. To view the entire log, select View Log for **Log Level** in the Log Details section. To view only the errors in the log, select Error for **Log Level.** To view only the errors and warnings in the log, select Warning for **Log Level.**

   If the log file is larger than 500 KB, only the last 500 KB of content is shown. For example, if the file is 700 KB, only the last 500 KB of content is shown, while the first 200 KB are not shown. To view the complete file, navigate to the directory where the file resides and access the contents from that location.

Figure 8–1 Event Log Search Page



9

Siebel Metrics

This chapter provides descriptions for all Siebel metric categories, and provides tables that list and describe associated metrics for each category.

Siebel metrics consist of the following categories:

- Siebel Component Metrics
- Siebel Component Group Target Metrics
- Siebel Gateway Target Metrics
- Siebel Server Target Metrics
- Siebel Workflow Target Metrics

9.1 Siebel Component Metrics

Table 9–1 provides details about the Siebel component metrics.

Table 9–1 Siebel Component Metrics

Metric	Description and User Action	Data Source
Average Object Manager Response Time (in milliseconds)	This metric shows the average (mean) time required to process a request sent to the Object Manager. It corresponds to the responsiveness of the interactive user sessions. This metric is primarily useful for establishing long-term performance trends and capacity planning. If application performance is deteriorating, the metric value rises. Since response time can be affected by factors such as the efficiency of the code, efficiency of your application configuration, server CPU and memory capacity, end-user behavior and data volume, you need to first identify the root cause of slower response time before taking any action. See the *Siebel Performance Tuning Guide* for more information.	Average Object Manager Response Time = Total Object Manager Response Time of all requests on all Object Manager sessions / Total number of requests of all Object Manager sessions
Average Connect Time for Object Manager Sessions (in seconds)	In establishing an interactive session with Object Manager, Object Manager needs to perform many tasks such as authentication, initialization, and allocating the necessary resources. The time required to perform all these activities is the connect time. The Average Connect Time for Object Manager sessions is the average amount of time required to establish a connection to a particular Object Manager since the startup of the component. This metric is primarily useful for evaluating connection performance overtime.	Average Connect Time = Total Connect Time / Total Number of Connections
Average Number of Requests Per Object Manager Session	Users can perform multiple actions, such as querying records, updating records, and clicking a button to issue a command in a single session. Each of these actions corresponds to one or more requests sent from the user's browser to the Object Manager. The Average Number of Requests for each Object Manager session is the average (mean) number of requests sent to Object Manager in all the Object Manager sessions recorded after the Siebel Enterprise startup. This metric is intended for informational purposes only. You can use it to track the usage pattern of your users to determine how much processing load they generate in a session. The information is especially useful over a period of time. When you combine the long-term trending of this metric with Total Object Manager sessions, you can determine whether the processing load is increasing or decreasing over time. The information can then be used in making capacity planning decisions.	Average Number of Requests per Object Manager = Total Number of Requests of all Object Manager sessions / Number of Object Manager sessions
Average Size of Reply Messages (in bytes)	This metric shows the size of the response to user-submitted requests to Object Manager. A greater size indicates more data is being passed. This metric is intended primarily for establishing long-term performance trends. If the metric trends up, it shows more data is being passed, which can be caused by factors such as increasing data volume, users issuing queries that return more data, and application configuration changes. You must identify the root cause to address the trend. Refer to the *Siebel Performance Tuning Guide* for more information.	This metric is computed by dividing the Total Size of all reply messages from all requests after the startup of the Object Manager by the number of requests.
Average Size of Request Messages (in bytes)	This metric shows the size of the request to user-submitted requests to Object Manager. A greater size indicates more data is being passed in submitting the request. This metric is intended primarily for establishing long-term performance trends. If the metric trends up, it shows that more data is being passed, which can be caused by factors such as application configuration changes. You must identify the root cause to address the trend. Refer to the *Siebel Performance Tuning Guide* for more information.	This metric is computed by dividing the Total Size of all request messages from all requests since the startup of the Object Manager by the number of requests.

Table 9–1 (Cont.) Siebel Component Metrics

Metric	Description and User Action	Data Source
CPU Usage	This metric shows the amount of CPU time consumed by this Siebel component. CPU data originates from two different sources: OS level (process-based statistics gathered by the Oracle Agent) and Srvrmgr statistics. This metric is intended primarily for establishing long-term performance trends. If the value of this metric increases over time, it shows that more intensive processing is occurring on the application server for this component. The change may be caused by application configuration changes or changes to the underlying Siebel software. You need to identify the root cause to address the trend. Refer to the *Siebel Performance Tuning Guide* for more information.	This metric is calculated by adding the CPU time of all component tasks for the component after the Siebel Server start up.
Max. MTS	This metric sets the maximum number of multi-threaded shells. You should review the Running MTS Processes metric periodically to learn about the level of running processes. If the number of MTS running is often close to exceeding the limit set through Max MTS, consider increasing the Max MTS value. On the other hand, if the number of MTS is always a fraction of the limit, consider lowering Max MTS.	The metric is set on the Siebel Component.
Number Component Process Failures	This metric provides the count of component tasks that exited with errors. Component Tasks exit with errors for many reasons, ranging from not having the correct business data to work with to failure in the software. If the number of such failures increases dramatically, you must examine what is wrong. Start by examining the Alert log and the Siebel Server Manager to find out the Tasks that exited with errors.	Component Tasks that exited with errors are counted.
Run State	This metric shows the current status of the component. If a component is down or disabled when it is not supposed to be, you should try to restart it or enable it using Siebel Server Manager. Also examine the component log file for information on why the component is not working.	The value of this metric is updated at each sampling period.
Running MTS Processes	This metric shows the number of running multi-threaded shell (MTS) processes. This metric is intended for informational purposes and can be used for long-term trending to analyze the component usage. If the number of MTS processes trends upward, it indicates increased usage of the component. Tuning or capacity adjustment may be required.	The value of this metric is queried from the Siebel Server at each sampling period.
Start Time	This metric is intended for informational purposes, and can be used during diagnostics to determine when the component was started.	The start time of the component. This metric is collected from the Siebel Server during each sampling period. It typically does not change unless the component is restarted.
Current Tasks	This metric shows the current number of running tasks for the component. Since the maximum number of tasks is limited by MaxTasks, this parameter indirectly indicates the number of remaining tasks. If the number of tasks becomes too high relative to MaxTasks, you may need to determine if there are runaway tasks or whether MaxTasks is set too low.	The value of Current Tasks is updated for each sampling period by querying the Siebel Server.

Table 9–1 (Cont.) Siebel Component Metrics

Metric	Description and User Action	Data Source
Max Tasks	This metric determines the maximum number of tasks that can be run for a Siebel Server Component. If the current number of running tasks equals Max Tasks, no new tasks can be spawned. For Interactive Object Managers, it means that no new users can log on. It is very important to make sure that Max Tasks is set to a level higher than the expected maximum number of tasks to be run at a given time. Refer to the *Siebel System Administration Guide* for more information. You should review the Current Tasks metric periodically to learn about the level of task usage. If the number of tasks running is often close to exceeding the limit set by Max Tasks, consider increasing the Max Tasks value. On the other hand, if the number of tasks is always a fraction of the limit, consider lowering Max Tasks.	This mertric is set using Siebel Server Manager.
Average Time for SQL Execute Operations (in seconds)	This metric shows the average (mean) amount of time the database requires to process the SQL statement after the statement is parsed. The metric is only applicable to older Siebel components such as EIM, and does not show the time required to process Object Manager requests. This metric is intended primarily for establishing long-term performance trends. If the value of this metric increases over time, it shows that SQL statements involving more complex operations are being executed, or the database has become less efficient at processing requests. These can be caused by changes to the application, increasing data volume, or tuning changes to the database. You must identify the root cause to address the trend. Refer to the *Siebel Performance Tuning Guide* for more information.	This metric is computed by dividing the total time for SQL execution from all requests since the startup of the component by the number of requests.
Average Time for SQL Parse Operations (in seconds)	This metric shows the average (mean) amount of time the database requires to parse the SQL statements being passed to it. The metric is only applicable to older Siebel components such as EIM, and does not show the time required to process Object Manager requests. This metric is intended primarily for establishing long-term performance trends. If the value of this metric increases over time, it shows that SQL statements have become more complex. Since Siebel generates all SQL statements dynamically, the change could be caused by changes to the underlying Siebel product, to the complexity of the business components, or query specifications you defined. You must identify the root cause to address the trend. Refer to the *Siebel Performance Tuning Guide* for more information.	This metric is computed by dividing the total time for parsing SQL statements from all requests for this component since the startup of the Siebel Server by the number of requests.
Total Number of SQL Execute Operations	This metric shows the total number of SQL statements executed. The number is aggregated from completed component tasks; that is, it does not reflect SQL statements executed by currently active sessions.	This metric is intended primarily for establishing long-term performance trends. If the value of this metric increases over time, it shows increased access to the database, which may necessitate tuning or capacity adjustments.
Total Number of SQL Fetch Operations	This metric shows the total number of SQL fetch operations for the component.	This metric is queried from the Siebel Server at each sampling period.
Total Number of SQL Parse Operations	This metric shows the total number of SQL statements parsed. The metric is only applicable to older Siebel components such as EIM, and does not show the time required to process Object Manager requests. It is used in computing the Average time for SQL Parse operations. This metric is intended primarily for establishing long-term performance trends. If the value of this metric increases over time, it shows increased access to the database, which may necessitate tuning or capacity adjustment.	This metric is queried from the Siebel Server at each sampling period.

Table 9–1 (Cont.) Siebel Component Metrics

Metric	Description and User Action	Data Source
Average CPU Time	Average CPU Time shows the average (mean) amount of time consumed to process a request. A higher CPU Time indicates more CPU-intensive processing. This metric is primarily useful in establishing long-term performance trends and capacity planning. If the metric trend is up, this indicates more CPU-intensive processing. You may need to add more processing capacity or tune the application configuration if this situation continues.	This metric is computed by dividing the Total CPU Time of all requests after the component startup by the Total Number of Requests after the component startup. Average CPU Time = Total CPU Time / Number of Requests.
Average Response Time	The Average Response Time shows the average (mean) time required to respond to an end-user action. It corresponds to the responsiveness of the interactive user sessions during a measurement period. This metric is useful for short term monitoring as well establishing long-term performance trends. If application performance is deteriorating, the metric value increases. Since response time can be affected by factors such as the efficiency of the code, efficiency of your application configuration, server CPU and memory capacity, end-user behavior, and data volume, you need to first identify the root cause of slower response time before taking any action. See the *Siebel Performance Tuning Guide* for more information.	This metric is computed via SARM data, as opposed to Server Component metrics. Average Response Time = Total Response Time all requests / Total number of requests during a measurement period.
Memory Usage	Memory usage measures the total amount of memory consumed by the running tasks of the component. This metric is intended primarily for informational purposes, especially in diagnosing memory-related problems. Constantly increasing memory usage may indicate a memory leak.	Memory consumption for all component processes is retrieved from the operating system.
Number of Requests	This metric indicates the total number of requests submitted to the component since the start-up of the Siebel Server. This metric is used as the denominator in calculating many other summary metrics. The value is intended for informational purposes and can be used for long-term trending to analyze the usage of the component. If the number of requests trends up, it indicates increased usage of the component. Tuning or capacity adjustment may be required.	The value of Number of Requests is updated for each sampling period by querying the Siebel Server.
Status	This metric shows the current status of the component. It is the binary representation of the component's availability: 1 = Available, and 0 = Down. If a component is down or disabled when it is not supposed to be, you need to attempt to restart it or enable it using Siebel Server Manager. Also, you can review the component log file for information on why the component is not working.	The value of this metric is updated at each sampling period.
Total CPU Time	This metric shows the aggregated CPU time used by all tasks completed for this component since the component was started. This metric is intended only for informational use. In most cases, the current CPU consumption and trends in CPU consumption are more informative. These can be checked with the CPU Usage metric.	This metric is collected from the Siebel server.
Total Response Time	This metric shows the total response time for the component.	This metric is derived from the srvrmgr statistics.

9.2 Siebel Component Group Target Metrics

Table 9–2 provides details about the Siebel component group target metrics.

Table 9–2 Siebel Component Group Target Metrics

Metric	Description and User Action	Data Source
Start Time	This metric shows the start time of the component. This metric is intended for informational purposes, and can be used during diagnostics to determine when the component was started.	This metric is collected from the Siebel Server during each sampling period. It typically does not change unless the component is restarted.
Status	This metric shows the current status of the component. It is the string representation of the state, such as Running, Online, and Shutdown. If a component is down or disabled when it is not supposed to be, you need to attempt to restart it or enable it using Siebel Server Manager. Also, you can review the component log file for information on why the component is not working.	The value of this metric is updated at each sampling period, and it is retrieved using srvrmgr.

9.3 Siebel Gateway Target Metrics

Table 9–3 provides details about the Siebel Gateway target metrics.

Table 9–3 Siebel Gateway Target Metrics

Metric	Description and User Action	Data Source
Response	This metric shows the response time of the Siebel Gateway.	Retrieved using srvrmgr.
Status	This metric shows the current status of the Siebel Gateway target.	Retrieved using srvrmgr.

9.4 Siebel Server Target Metrics

Table 9–4 provides details about the Siebel Server target metrics.

Table 9–4 Siebel Server Target Metrics

Metric	Description and User Action	Data Source
File System Usage (%)	This metric shows the percentage of disk space used for the selected file system. The file systems covered are the Siebel installation directory, Siebel log directory, and Siebel file system used to share documents across Siebel servers. If one of the file systems is close to being exhausted (for example, 95% fill level), the administrator should consider cleaning up the respective file system or adding additional disk space.	File system monitoring
File System Usage (KB)	This metric shows the absolute amount of disk space used for the selected file system. The file systems covered are the Siebel installation directory, Siebel log directory, and Siebel file system used to share documents across Siebel servers.	File system monitoring
Average Connect Time for Object Manager Sessions (in seconds)	In establishing an interactive session with Object Manager, it needs to perform many tasks such as authentication, initialization, and allocating the necessary resources. The time the Object Manager requires to perform all these activities is the connect time. The Average Connect Time for Object Manager sessions is the average amount of time necessary to establish a connection to a particular Object Manager after starting the component. Metrics from all active object managers running inside a Siebel server are aggregated to the Siebel server level to provide this metric. This metric is primarily useful for evaluating connection performance overtime.	Average Connect Time = Total Connect Time / Total Number of Connections

Table 9–4 (Cont.) Siebel Server Target Metrics

Metric	Description and User Action	Data Source
Average Number of Requests Per Object Manager Session	Users can perform multiple actions, such as querying records, updating records, and clicking a button to issue a command in a single session. Each of these actions corresponds to one or more requests sent from the user's browser to the Object Manager. The Average Number of Requests for each Object Manager session is the average (mean) number of requests sent to the Object Manager in all the Object Manager sessions recorded after starting the Siebel Enterprise. Metrics from all active object managers running inside a Siebel server are aggregated to the Siebel server level to provide this metric. This metric is only intended for informational purposes. You can use it to track the usage pattern of your users to see how much processing load they generate in a session. The information is especially useful over time. When you combine the long-term trending of this metric with the Total Object Manager session, you can see whether the processing load is increasing or decreasing over time. The information can then be used in making capacity planning decisions.	Average Number of Requests per Object Manager = Total Number of Requests of all Object Manager sessions / Number of Object Manager sessions
Average Object Manager Response Time (in milliseconds)	This metric shows the average (mean) time necessary to process a request sent to the Object Manager. It corresponds to the responsiveness of the interactive user sessions. Metrics from all active object managers running inside a Siebel server are aggregated to the Siebel server level to provide this metric. This metric is primarily useful for establishing long-term performance trends and capacity planning. If application performance is deteriorating, the metric value increases. Since response time can be affected by factors such as efficiency of code, efficiency of your application configuration, server CPU and memory capacity, end-user behavior and data volume, you first need to identify the root cause for slower response time before taking any action. See the *Siebel Performance Tuning Guide* for more information.	Average Object Manager Response Time = Total Object Manager Response Time of all requests on all Object Manager sessions of this server / Total number of Requests of all Object Manager sessions
Average Size of Reply Messages (in bytes)	This metric shows the size of the response sent from user-submitted requests to Object Manager. A large size indicates that a large amount is being passed. Metrics from all active object managers running inside a Siebel server are aggregated to the Siebel server level to provide this metric. This metric is intended for establishing long-term performance trends. If this metric trends upward, it shows that a large amount of data is being passed, which can be caused by factors such as increasing data volume, users issuing queries that return more data, and application configuration changes. You need to identify the root cause of the problem to address this trend.	This metric is computed by dividing the Total Size of all reply messages from all requests since the startup of the server by the number of requests.
Average Size of Request Messages (in bytes)	This metric shows the size of the request to user-submitted requests to Object Manager. A greater size indicates that more data is being passed while submitting the request. Metrics from all active object managers running inside a Siebel server are aggregated to the Siebel server level to provide this metric. This metric is intended primarily for establishing long-term performance trends. If the metric trends upward, it shows that more data is being passed, which can be caused by factors such as application configuration changes. You need to identify the root cause to address the trend. Refer to the *Siebel Performance Tuning Guide* for more information.	This metric is computed by dividing the Total Size of all request messages of all requests since the startup of the server by the number of requests.

Table 9–4 (Cont.) Siebel Server Target Metrics

Metric	Description and User Action	Data Source
Average Time for SQL Execute Operations (in seconds)	This metric shows the average (mean) amount of time the database requires to process the SQL statement after the statement is parsed. The metric is only applicable to older Siebel components such as EIM, and does not show the time required to process Object Manager requests. Metrics from all active object managers running inside a Siebel server are aggregated to the Siebel server level to provide this metric. This metric is intended primarily for establishing long-term performance trends. If the value of this metric increases over time, this shows that SQL statements involving more complex operations are being executed, or the database has become less efficient at processing requests. These can be caused by changes to the application, increasing data volume, or tuning changes to the database. You need to identify the root cause to address the trend. Refer to the *Siebel Performance Tuning Guide* for more information.	This metric is computed by dividing the total time for SQL execution from all requests after starting the server by the number of requests.
Average Time for SQL Fetch Operations (in seconds)	This metric shows the average (mean) amount of time the database requires to fetch records by an SQL statement after the statement is parsed. The metric is only applicable to older Siebel components such as EIM, and does not show the time required to process Object Manager requests. Metrics from all active object managers running inside a Siebel server are aggregated to the Siebel server level to provide this metric. This metric is intended primarily for establishing long-term performance trends. If the value of this metric increases over time, this shows that SQL statements involving more complex operations are being executed, or the database has become less efficient at processing requests. These can be caused by changes to the application, increasing data volume, or tuning changes to the database. You need to identify the root cause to address the trend. Refer to the *Siebel Performance Tuning Guide* for more information.	This metric is computed by dividing the total time for SQL execution from all requests since the startup of the server by the number of requests.
Average Time for SQL Parse Operations (in seconds)	This metric shows the average (mean) amount of time the database requires to parse the SQL statements being passed to it. The metric is only applicable to older Siebel components such as EIM, and does not show the time required to process Object Manager requests. This metric is intended primarily for establishing long term performance trends. If the value of this metric increases over time, it shows that SQL statements have become more complex. Since Siebel generates all SQL statements dynamically, the change could be caused by changes to the underlying Siebel product, changes to the complexity of the business components, or query specifications you defined. You need to identify the root cause to address the trend. Refer to the *Siebel Performance Tuning Guide* for more information.	This metric is computed by dividing the total time for parsing SQL statements from all requests for this component since the startup of the Siebel Server by the number of requests.
CPU Usage	This metric shows the amount of CPU time this Siebel component consumed. This metric is intended primarily for establishing long-term performance trends. If the value of this metric increases over time, it shows that more intensive processing is occurring on the application server for this component. The change may be caused by application configuration changes or changes to the underlying Siebel software. You need to identify the root cause to address the trend. Refer to the *Siebel Performance Tuning Guide* for more information.	The metric is computed by adding up the CPU time of all component tasks for the component since the startup of the Siebel Server.

Table 9–4 (Cont.) Siebel Server Target Metrics

Metric	Description and User Action	Data Source
File System Free Space (KB)	This metric shows the absolute amount of free disk space currently available in the selected file system. The file systems covered are the Siebel installation directory, the Siebel log directory, and the Siebel file system used to share documents across Siebel servers. If the absolute amount of free disk space becomes very small (for example, less than 500 MB), there is a risk that the file system will fill up quickly, which would affect availability of the Siebel server. If this value becomes too low, the file system must be cleaned, or additional disk space needs to be added.	File system monitoring
Memory Usage	Memory usage measures the total amount of memory consumed by the processes running as part of the Siebel server. The metric is primarily intended for informational purposes, especially in diagnosing memory-related problems. Constantly increasing memory usage may indicate a memory leak.	Memory consumption for all Siebel server processes is retrieved from the operating system.
Number Component Process Failures	This metric provides the count of component tasks that exited with errors. Component Tasks exit with errors for many reasons, ranging from not having the correct business data to work with to failure in the software. If the number of such failures increases dramatically, something is definitely wrong and should be examined. A good place to start would be to examine the Alert log and the Siebel Server Manager to find out which Tasks exited with errors.	Component Tasks that exited with errors are counted.
Number Component Process Restarts	This metric provides the count of component tasks that exited with errors. Component tasks exit with errors for many reasons, ranging from not having the correct business data to work with, to failure in the software. If the number of such failures increases dramatically, something is definitely wrong and should be examined. A good place to start would be to examine the Alert log and the Siebel Server Manager to find out which tasks exited with errors.	Component Tasks that exited with errors are counted.
Number of Retries Due to DB Connection Loss	When the Siebel Server loses connection to the database, it attempts to retry the operation before stopping and reporting the problem. This metric shows the number of retries. If the number of retries rises dramatically, this indicates problems with the database or the network, and the administrator should examine these components to determine why they are dropping database connections.	Not available
Number of Retries Due to Deadlock Rollbacks	When the Siebel Server loses connection to the database, it attempts to retry the operation before giving up and reporting the problem. This metric records the number of retry attempts. If the number of retries increases dramatically, this indicates problems with the database or the network, and the administrator should examine these components to determine why they are dropping database connections.	Not available
Number of Times All Retries are Exhausted	This metric counts the number of retry failures; that is, the number of times the Siebel Server stops the attempts of communicating with the database. A database administrator should be called to find out why the Siebel Server cannot communicate with the database.	Not available
Start Time	This metric shows the start time of the Siebel server.	Retrieved by srvrmgr from the running Siebel server.
Status	This metric shows the current status of the Siebel server (that is, whether it is available or down). If the status of a Siebel server is shown as unavailable, the administrator should check the reason of the failure and attempt to start the Siebel server again.	The status of a Siebel server is determined by running the srvrmgr command line utility.
Available Disk space (KB)	This metric shows the absolute amount of disk space available in the selected file system. The file systems covered are the Siebel installation directory, the Siebel log directory, and the Siebel file system used to share documents across Siebel servers.	File system monitoring

Table 9–4 (Cont.) Siebel Server Target Metrics

Metric	Description and User Action	Data Source
Total CPU Time for Component Tasks (in seconds)	The total CPU time in seconds for component tasks.	Not available
Total Number of Level 0 and 1 Errors	This metric counts the number of fatal errors and regular errors on the Siebel Server. There are always a small number of errors on the Siebel Server. However, if the count develops an upside trend, the administrators should check the alert and error logs.	Not available
Log Tracking Metric	This metric is used to send alert notifications to on-call administrators when specific patterns are found in the middleware-related log files.	Not available

9.5 Siebel Workflow Target Metrics

Table 9–5 provides details about the Siebel Workflow target metrics.

Table 9–5 Siebel Workflow Target Metrics

Metric	Description
Total Number of Completed Process Instances in Past 1 Hour	This metric shows the total number of workflow process instances that completed in the past hour. The collection frequency is every 15 minutes.
Total Number of Workflow Policy Instances in Waiting State	This metric shows the total number of workflow policy instances waiting in a queue. The collection frequency is every 15 minutes.
Total Number of Workflow Process Instances in Waiting State	This metric shows the total number of workflow process instances waiting in a queue. The collection frequency is every 15 minutes.
Number of Monitored Process Instances Failed State	This metric shows the number of workflow process instances that failed. The collection frequency is every 15 minutes.
Number of Monitored Process Instances in Waiting State	This metric shows the total number of workflow process instances waiting in a queue. The collection frequency is every 15 minutes.

10 Troubleshooting

This chapter describes the following common problems you can encounter when monitoring and managing Siebel Enterprises with the Siebel Plug-in:

- Failure to Discover a Siebel Enterprise
- Certain Metrics are Not Collected
- Business Metrics Are Not Collected
- All SarmQuery Metrics are '0'
- Siebel File System Metrics Are Not Collected
- Status of Certain Components in Enterprise Manager Differs from Status of Same Components in Server Manager
- Beacon Does Not Correctly Report Status of HI Applications
- Internet Explorer Crashes When Trying to Record Multiple Transactions for Same Application
- Siebel Enterprise Discovery Does Not Yield Results
- Siebel Enterprise Discovery Fails With Internal Error
- Siebel Application Discovery Does Not Yield Results
- Siebel Service Status Issues
- Sarm Metrics and Performance Diagnostics Issues

> **See Also:** Topic 1074241.1 in My Oracle Support for other information not discussed in this section:
>
> `https://support.oracle.com`

10.1 Failure to Discover a Siebel Enterprise

Problem

The Siebel Enterprise discovery fails and, consequently, Enterprise Manager does not create the corresponding Siebel Enterprise targets.

Possible Cause

The Siebel gateway details you provided are invalid or the Management Agent does not have the required permissions on the gateway machine to read configuration files.

Solution

Ensure that the Discovery PreCheck is completed successfully. If there are errors, check the enterprise name. Ensure that the configuration files, and the Siebel Targets exist in the correct locations. Also ensure that the discovery of the Gateway Server is performed successfully.

Possible Cause

(Unix only) — The specified port number is incorrect.

Solution

Make sure that the specified port number in the discovery pages matches the port number configured for your gateway server.

10.2 Certain Metrics are Not Collected

Problem

Although the Siebel Enterprise discovery functioned as expected, some metrics are collected, but other metrics are not.

Possible Cause

The user name and password credentials provided for this particular Siebel Enterprise user are incorrect. Because these credentials are required to retrieve many of the Siebel performance metrics, the incorrect credentials prevent the system from collecting these metrics.

Solution

Go to the **Siebel** tab, remove the enterprise, and repeat the discovery process.

Possible Cause

The Agent uses credentials that do not grant access to the Siebel installation directory or to run the Siebel utilities.

Solution

Make sure that the Enterprise Manager Agent uses credentials that allow access to the Siebel installation directory and have sufficient privileges to run Siebel utilities, such as `srvrmgr` and `query`.

Possible Cause

For 10.2.0.3 Agents, the `SiebelClasspathFix.bat` or `siebelClasspathFix.sh` file is not executed (prerequisite).

Solution

These files must be executed so that `jmxri.jar` and `empaAgent.jar` entries are added to *`$AGENT_HOME`*`/sysman/config/classpath.lst` file. After executing the respective script, the Agent must be restarted.

This is applicable only for 10gR3.

10.3 Business Metrics Are Not Collected

Problem

Business metrics are not collected.

Possible Cause

The database password is not defined.

Solution

Go to the Siebel Database Repository target home page of the corresponding Siebel Enterprise target and click **Monitoring Configuration** in the **Related Links** section of the page. Enter the appropriate values in the **Siebel Database User Name** and **Password** fields.

Possible Cause

(Unix only) — Oracle environment variables were not added to the `siebenv.sh` file of the Siebel server used to execute the SQL statements that retrieve business metrics from the Siebel database.

Solution

Add the appropriate Oracle environment variables to the `siebenv.sh` file.

10.4 All SarmQuery Metrics are '0'

Problem

All SarmQuery Metrics are '0'.

Possible Cause

You are using a Siebel version older than Siebel 8.0 and sarmquery was not copied to the *$ORACLE_HOME*/`bin` directory of each of the Agents running on the Siebel server host.

Solution

Download **sarmquery** from My Oracle Support and copy the related files to the bin directory of the Enterprise Manager Agent.

Possible Cause

SARM has to be enabled by using `srvrmgr` to allow SARM performance metrics to be collected. If SARM parameters are not configured for your Siebel components, no SARM data is generated.

Solution

Follow the instructions in the step 7 (Enable SARM) of the Section 2.1, "Prerequisites for Setting Up Siebel in Enterprise Manager".

10.5 Siebel File System Metrics Are Not Collected

Problem

Siebel file system metrics are not collected.

Possible Cause

If a Siebel file system is defined to be accessible exclusively by a group of operating system users and the Agent does not belong this group of users, the Agent is not able to retrieve information about this file system.

Solution

Make sure that the Enterprise Manager Agent can access all Siebel file systems (log directory, installation directory, and Siebel file system directory) and has at least read access to the Siebel file system.

10.6 Status of Certain Components in Enterprise Manager Differs from Status of Same Components in Server Manager

Problem

The status of components shown in Enterprise Manager differs from the status or performance numbers available through `srvrmgr`.

Possible Cause

Enterprise Manager collects Siebel metrics only at certain intervals (regular metrics every 15 minutes, and availability information every 5 minutes). Therefore, information visible in the Enterprise Manager user interface can be out of sync with `srvmgr` for up to 15 minutes.

Workaround

If you are interested in monitoring a certain metric in real-time mode for a certain period of time, go to the **All Metrics** page for a given Siebel target, navigate to the desired metric, and change it to **Realtime** mode.

In this mode, collection occurs more frequently and you can follow statistics more closely.

Solution

You can change the collection frequency for individual metrics. If you want the availability metrics to be collected more often, you can change the collection frequency for your key Siebel components.

10.7 Beacon Does Not Correctly Report Status of HI Applications

Problem

The beacon does not report correctly the status of HI Applications.

Troubleshooting Tip

To better troubleshoot this error, view the error entries in the log error file. If your environment is not configured to generate an error file, you can do so by defining the following variables:

```
HISIEBEL_DEBUG_LOG-the log file name including the full path
HISIEBEL_LOG_LEVEL-set the log level to DEBUG or ERROR
```

It is recommended to have at least one beacon system for each Siebel version.

Possible Cause

When a single beacon accesses two or more different Siebel environments, the recording or playback of a transaction can only be accomplished for the last Siebel environment that was accessed.

For example, if a given beacon accesses a Siebel 7.0 environment and later attempts to access a Siebel 7.7 environment, this beacon cannot revert to a Siebel 7.0 environment to play back or record a new transaction. This happens because each Siebel version registers a different CAB (Siebel) file in the client host, and only the last registered file is active.

Solution

On the Internet Explorer browser, delete the CAB files of the environment you do not want to use. To delete CAB files on Internet Explorer:

1. Open Internet Explorer, navigate to the **Tools** menu, and select **Internet Options**.

   The Internet Options window appears.

2. Navigate to the **Temporary Internet Files** section of the window, and click **Settings**.

   The Settings window appears.

3. Click **View Objects**.

   The Downloaded Program Files window appears.

4. Delete the unnecessary CAB files.

Possible Cause

When consecutive record or playback sessions are in progress, the "Session already in progress" page appears and the recording session is terminated. This error is caused by a limitation in the Siebel CAS layer.

Solution

Use the timeout parameter to limit the amount of time a given service test can run and allow a long length of time between tests so the processes do not interfere with each other.

For example, you might want to set up a test to run every 13 minutes for 1 minute, and another test to run every 17 minutes for 1 minute.

Possible Cause

The Agent-side components for HI Applications have not been installed properly.

Solution

Verify the proper installation of these components by doing the following:

1. Check that the `emIEClient.exe` and `emIElib.dll` files are present in the Agent bin directory.
2. Type **regedit** to open the registry and search for `emIElib.dll`; it should point to the location under the Agent bin directory. This indicates that the dll has been properly registered as part of the installation.

10.8 Internet Explorer Crashes When Trying to Record Multiple Transactions for Same Application

Problem

Internet Explorer crashes when trying to perform multiple recording transactions for the same application.

Possible Cause

There is a limitation in the CAS layer.

Solution

Close and start a new Internet Explorer browser window.

10.9 Siebel Enterprise Discovery Does Not Yield Results

Problem

Siebel Enterprise Discovery does not yield any results.

Possible Cause

The discovery process depends on the vpd.properties file.

Windows:

```
C:\WINDOWS\vpd.properties
```

Unix:

```
\var\adm\siebel\vpd.properties
```

Discovery cannot function properly if the file does not exist or is corrupted.

Solution

Check why vpd.properties does not exist. Attempting to use a backup copy of the vpd.properties file should be located in the same directory. Alternatively, create a dummy version of the file.

Possible Cause

The vpd.properties file is written by multiple installers. If there is an installer problem, the information required to locate the Siebel Gateway server installation may not be in the file any longer, causing the discovery process to fail.

Solution

Manually create an entry that allows the discovery process to find the Siebel Gateway server installation.

Possible Cause

If the enterprise name specified on the Add Siebel Enterprise page does not match the names of Siebel Enterprises maintained through the specified Siebel Gateway server, discovery does not yield any results.

Solution

Check the enterprise name again.

Possible Cause

On Unix systems, changing the port number of the Siebel Gateway service is a supported configuration option. If an incorrect port number is specified on the discovery screen, the gateway server installation is not recognized during the discovery process.

Solution

Check the gateway port number again.

Possible Cause

If Siebel server names contain hyphens, these Siebel servers are not recognized during the discovery process, as server names with hyphens are not supported in the Siebel product. See documentation on naming conventions on the Siebel Support Web.

Solution

Reinstall the Siebel servers.

10.10 Siebel Enterprise Discovery Fails With Internal Error

Problem

Siebel Enterprise Discovery fails with an internal error.

Possible Cause

For the Siebel Enterprise discovery to function, Agents must be installed on all of the Siebel servers belonging to the specified Siebel Enterprise. (The concept is that all parts of the Siebel Enterprise should be monitored, which is possible only with an Agent on each of the Siebel server systems.)

Solution

Ensure that you install an Agent on each of the Siebel server systems. Agents should be associated with the OMS from which the discovery is initiated.

10.11 Siebel Application Discovery Does Not Yield Results

Problem

The Siebel Enterprise Web service discovery does not yield any results or fails due to an error.

Possible Cause

The discovery process depends on the vpd.properties files.

Windows:

```
C:\WINDOWS\vpd.properties
```

Unix:

```
\var\adm\siebel\vpd.properties
```

Discovery cannot function properly if the file does not exist or is corrupted.

Solution

Check why the vpd.properties file does not exist. Attempting to use a backup copy of the vpd.properties file should be located in the same directory. Alternatively, create a dummy version of the file.

Possible Cause

The vpd.properties file is written by multiple installers. If there is an installer problem, the information required to locate the Siebel Web server extension installation may not be in the file any longer. This causes the discovery process to fail.

Solution

Manually create an entry that allows the discovery process to find the Siebel Gateway server installation.

10.12 Siebel Service Status Issues

Problem

The status of Siebel HI services/applications (for example, Call Center) is shown as down.

Possible Cause

The service tests for Siebel High Interactivity applications (for example, Call Center or sales) use Siebel test automation functionality to allow simulation of certain keyboard and mouse events. To enable test automation, the parameter TestAutomation must be enabled for the respective components.

Solution

To allow monitoring of the Call Center application (example), the srvrmgr command shown below must be executed, and the component or Siebel server need to be restarted after to activate the parameter change. See Section 2.3, "Enabling Automation" for details.

Possible Cause

If an incorrect Siebel user/password combination was specified on the Add Enterprise page, discovery functions as expected, but collection of metrics through srvrmgr is not possible.

Solution

1. Start the Services control application and browse to the Enterprise Manager Agent service. Typically, this Agent is named Oracleagent10gagent.
2. Double-click the service entry.
3. On the **Log On** tab, select the **Allow service to interact with the desktop** option.
4. Click **OK** to save your changes.

Possible Cause

The beacon has to be deployed to a Windows host, where Internet Explorer is available and has been successfully used to connect to a Siebel HI application. If Internet Explorer cannot be located, the service is shown as unavailable.

Solution

Deploy the beacon to a Windows system with an existing and working Internet Explorer installation.

10.13 Sarm Metrics and Performance Diagnostics Issues

Problem

SARM metrics are not available for components, or Diagnostic reports show 'No Data'.

Possible Cause

For Siebel 7.8, the sarmquery utility is not packaged as part of the Siebel product. To gather SARM metrics, the SARM utility must be copied to the Agent installation directory, specifically into the 'bin' sub-directory. If the sarmquery utility is not available or sufficient access rights are not granted, SARM metrics cannot be gathered.

Solution

Copy the sarmquery utility and related DLLs to the <agent dir>/agent10g/bin directory and/or check access rights for the utility and the DLLs.