

Siebel 8.1.x Application Administration

Volume I • Student Guide

D63799GC10
Ed 1
March 2010
D66355

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Siebel 8.1.x Application Administration: Course Introduction



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Lesson Agenda

- This lesson provides an introduction to the:
 - Instructor and class participants
 - Training site information
 - Course:
 - Audience
 - Prerequisites
 - Goal
 - Objectives
 - Methodology
 - Materials
 - Agenda

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Instructor and Class Participants

- Who are you?
 - Name
 - Company
 - Role
- What is your prior experience?
 - Siebel applications
 - Application administration
- How do you expect to benefit from this course?

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Training Site Information

Rest rooms



Class duration and breaks



Telephones



Meals and refreshments



Fire Exits



Questions?



Course Audience

- This course is designed for application administrators responsible for supporting pre-deployment, post-deployment, or ongoing administration of Siebel applications
 - Administrators
 - Business analysts
 - End users

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Course Prerequisites

- Familiarity with Microsoft Windows (recommended)
 - Navigating the file system
 - Copying, renaming, and/or deleting files
 - Starting or stopping Windows services

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Course Goal

- To enable participants to perform initial and ongoing administration of Siebel applications

Course Objectives

- Use a Siebel application
 - Navigate, manipulate records, and describe the basic architecture, including object definitions
- Control access to views and customer data
- Use catalogs to control access to master data
- Create and administer literature
- Customize the user experience
- Administer lists of values
- Enter and/or administer initial data
- Administer quick fill templates and predefined queries
- Create and administer message broadcasts and alerts
- Manage activity plans and templates

Course Objectives

- Create and administer assessment templates
- Create iHelp items
- Administer business automation
- Administer approvals
- Administer the Universal Inbox
- Administer Siebel Reports
- Create and submit jobs
- Create and administer state models
- Administer audit trails
- Set system preferences
- Administer assignment manager

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Course Methodology

- Subject matter is delivered through:
 - Lecture and slide presentations
 - Software demonstrations
 - Class discussions
 - Hands-on practices

Course Materials

- Course content is delivered over five days
- Student Guide
 - All slides presented during lecture
 - Student notes with references to the Siebel Bookshelf documentation library
- Activity Guide
 - Hands-on practices

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Course Materials

Notes have been added to the student guide to describe the diagrams in the slides to help students who may have difficulty seeing or interpreting them

Siebel Documentation

- Siebel applications are documented in Siebel Bookshelf, a searchable collection of guidebooks
 - Bookshelf is also called Siebel Business Applications Documentation Library
 - Updated regularly
- In the classroom, Siebel Bookshelf is available on Oracle Technology Network
 - www.oracle.com/technology/documentation/siebel.html
 - Make sure you are using the appropriate version of Bookshelf
 - Example: Siebel 8.1

Feedback

- If you have feedback on this or other Siebel courseware, please email
SIEBEL_CRM_CURRICULUM_WW@oracle.com

Course Agenda

Introducing Siebel CRM Applications

- Lesson 1: Introducing Siebel Applications
- Lesson 2: Working with Data in Siebel CRM Applications
- Lesson 3: Exploring the Siebel Architecture
- Lesson 4: Understanding Object Definitions

Controlling Access to Siebel Applications and Data

- Lesson 5: Security and Access Control
- Lesson 6: Responsibilities and Views
- Lesson 7: Users, Positions, and Organizations
- Lesson 8: Controlling Access to Customer Data
- Lesson 9: Catalogs and Master Data

Course Agenda

Assorted Application Administration Topics

- Lesson 10: Administering Literature
- Lesson 11: Customizing the User Experience
- Lesson 12: Administering Lists of Values
- Lesson 13: Administering Initial Data
- Lesson 14: Quick Fill Templates and Predefined Queries
- Lesson 15: Administering Message Broadcasts and Alerts
- Lesson 16: Administering Activity Plans and Templates
- Lesson 17: Administering Assessment Templates
- Lesson 18: Administering Siebel iHelp
- Lesson 19: Administering Business Automation

Course Agenda

Assorted Application Administration Topics

- Lesson 20: Administering Approvals
- Lesson 21: Administering the Universal Inbox
- Lesson 22: Administering Siebel Reports
- Lesson 23: Submitting Jobs
- Lesson 24: Siebel State Model
- Lesson 25: Administering Audit Trail
- Lesson 26: Setting System Preferences
- Lesson 27: Administering Assignment Manager

Summary

- This Lesson provided an introduction to the:
 - Instructor and class participants
 - Training site information
 - Course:
 - Audience
 - Prerequisites
 - Goal
 - Objectives
 - Methodology
 - Materials
 - Agenda

Practice 0 Overview: Preparing the Classroom Environment

This practice covers the following topics:

- Exiting any existing Siebel applications
- Running the classroom refresh utility to prepare the classroom for this course

Note: Successfully completing this practice is critical to ensure subsequent practices behave as expected.

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Preparing the Classroom Environment

Practices for this and all other lessons are found in the course's Activity Guide.

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Introducing Siebel Applications

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Objectives

After completing this lesson, you should be able to:

- Describe Siebel Customer Relationship Management (CRM) applications
- Start and log in to a Siebel application
- Navigate screens and views in the application

Siebel Customer Relationship Management (CRM) Applications

- Enable you to manage interactions with customers, partners, and employees
 - Typically deployed as a one or more applications with broad functionality
 - Supports multiple ways to communicate
 - Web and email
 - Call center
 - Field service
- Use a single database to:
 - Allow all users access to the same set of data
 - Example: the correct customer request status is seen by all relevant users
 - Ensure changes to data are made once and only once
 - Example: An address needs to be updated in only one place

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Siebel Customer Relationship Management (CRM) Applications

OnDemand: Oracle On Demand is a hosted CRM solution, that implements some of the same functionality of Siebel CRM (the product used in this course), but is not the same product. For more information on Oracle On Demand, visit the On Demand Web site by visiting the Products and Services section of <http://www.oracle.com>.

Siebel CRM Applications

- Are available tailored for:
 - Different types of employee or partner interactions and channels (horizontal applications)
 - Different industries (industry applications)
- Examples:
 - Horizontal applications
 - Siebel Sales
 - Siebel Call Center
 - Siebel Partner Portal
 - Industry (vertical) applications
 - Siebel Finance
 - Siebel Consumer Goods
- You will use Siebel Call Center throughout this course

Comparison of Siebel CRM Applications

- Siebel functionality is delivered as separate horizontal or vertical applications which:
 - Have the same user interface and navigation
 - Are based on the same underlying application architecture
 - Use the same underlying technologies for automation, integration, and so on
 - Share many of the same application screens
- Applications use the same executable, but use a modified configuration
 - You specify or make customizations to meet the specific requirements of your business

Configuring Siebel Applications

- Siebel CRM applications can be configured to meet business requirements by:
 - Specifying preferences, administrative settings, and other configuration data in the Siebel application
 - System administrators adjust configuration parameters
 - Application administrators adjust other application settings and administer application data
 - Configuring the application using Siebel Tools
 - Siebel Tools is a separate application used by developers to perform application customizations
 - For example, developers may customize which fields are displayed, or how they are populated

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Configuring Siebel Applications

References:

- Siebel Tools is discussed in *Configuring Siebel Business Applications*, or the Siebel Tools course.
- Siebel system administration is discussed in the *Siebel System Administration Guide*, or the Siebel System Administration course.
- Siebel application administration is discussed in the *Siebel Applications Administration Guide*, or in this course

Siebel User Interface (UI) Modes

- The Siebel UI may be rendered in one of two modes:
 - High Interactivity (HI) mode
 - Standard Interactivity (SI) mode
- The mode is specified by the application, and is typically not modified

More 

High Interactivity (HI) Mode

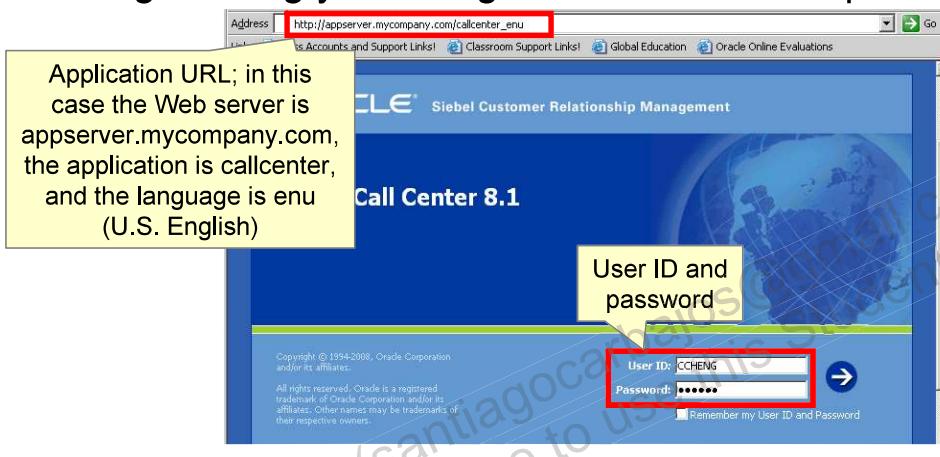
- Is available for applications intended for internal employees
 - Application Administrators typically work in HI mode
- Supports users who require additional functionality
 - Improves productivity
- Uses additional code, such as Active X controls, to provide extra functionality
 - Drag-and-drop for setting column widths
 - Explorer-like hierarchy views
 - Saving records by moving off the current line (implicit saves)
- Requires Internet Explorer
 - See the *System Requirements and Supported Platforms Guide* for a list of supported versions

Standard Interactivity (SI) Mode

- Is available for both customer and employee applications
- Designed to be more browser-independent
 - Behaves like a typical HTML-based Web application
- Available on a wide variety of Web browsers
 - See the *System Requirements and Supported Platforms Guide* for a list of supported browsers
- Does not support some of the functionality available with High Interactivity Mode
 - For example, implicit saves

Logging In to a Siebel Application

- Access a Siebel application using a Web browser by entering the application's URL
 - By default, the format is
`http://<Web server>/<application>_<language>`
- Log in using your assigned username and password



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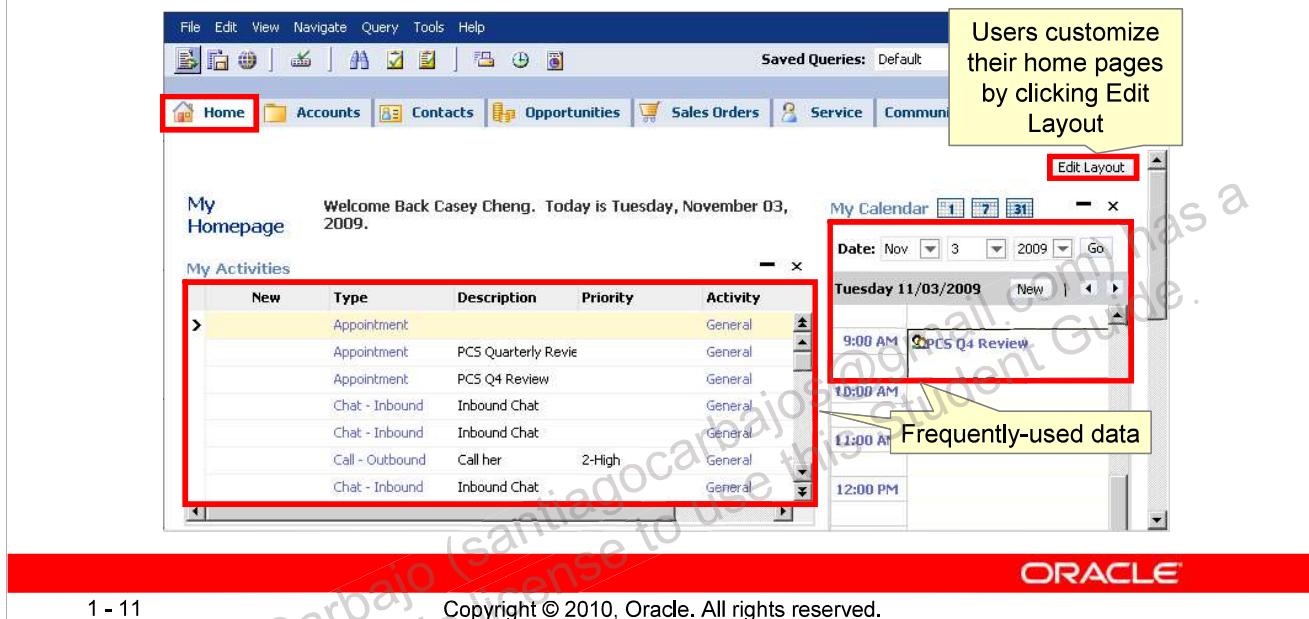
Logging In to a Siebel Application

Reference: *Siebel Fundamentals*

Screenshot: The screenshot shows an Internet Explorer browser window with the Siebel Call Center log in screen. In the Address, the application URL is entered (`http://appserver.mycompany.com/callcenter_enu`). The application is Call Center and the language is U.S. English. There are prompts to enter the User ID and Password.

The Application Home Page

- Is displayed after logging in to a Siebel application
- Provides quick access to frequently-used data



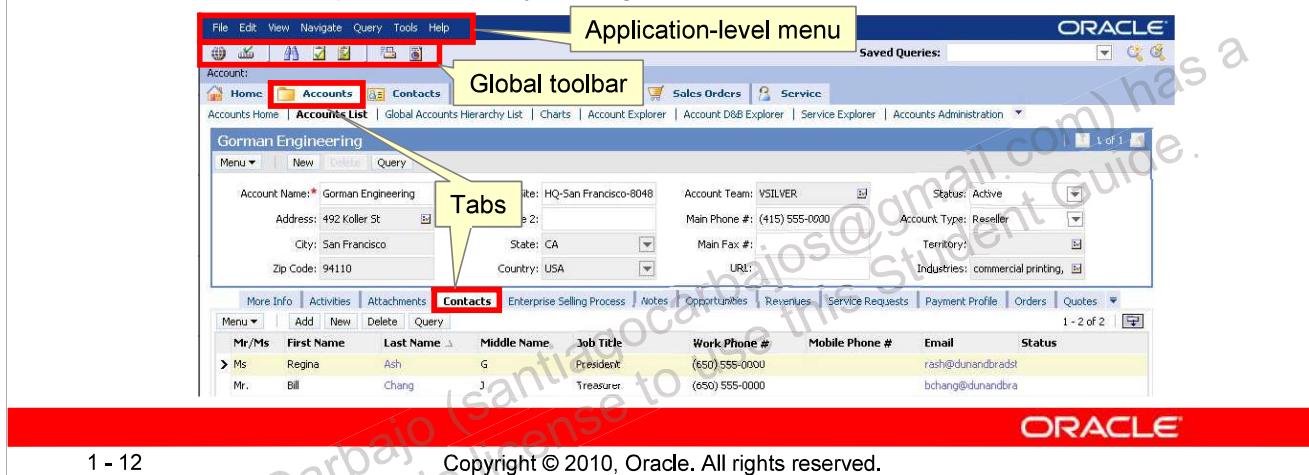
The Application Home Page

Configurable Home Page: The Home Page can be configured by an application administrator to provide users quick access to tasks they commonly perform. You will do this in a subsequent lesson. The user can further customize this page by showing or hiding the regions; for example, "My Activities" or "My Calendar".

Screenshot: The screenshot shows the Siebel Call Center application with the Home page screen tab selected. By default a greeting is displayed welcoming the user. Also the My Activities and My Calendar applets are shown. Users can use the Edit Layout button at the upper left to customize which applets display to them.

The Siebel Application User Interface

- Consists of Web pages that display Siebel data and surrounding controls
 - Application-level menu helps navigation and manipulating data
 - Global toolbar provides quick access to common tasks
 - Tabs provide easy navigation to related data



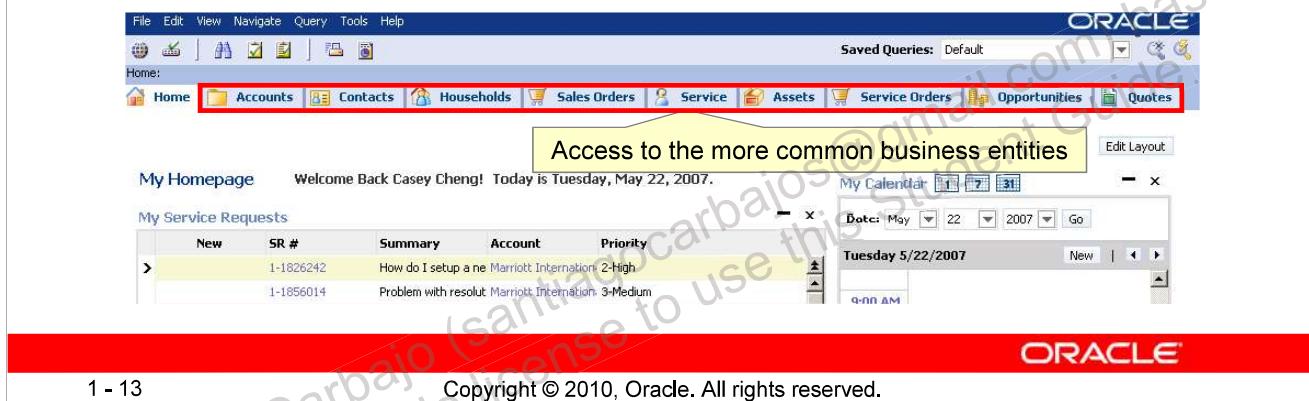
The Siebel Application User Interface

Persistent User Interface Elements: The application-level menu and Global toolbar are always displayed in the user interface.

Screenshot: The screenshot shows the application-level menu at the top left of the screen. It contains the File, Edit, View, Navigate, Query, Tools, and Help menus. Below that is the global toolbar which contains icons to navigate the user to common tasks. Below that is a row of screen tabs to navigate between application areas. Halfway down the screen is another set of tabs that allow navigation within the application area (or screen).

Common Siebel Application Business Entities

- Siebel applications use common business entities
 - A business entity is something of business interest in the real world
 - A person, place, thing or event about which data must be stored
- Provides the foundation for organizing data
- Examples: Accounts, Contacts, Households, and so on

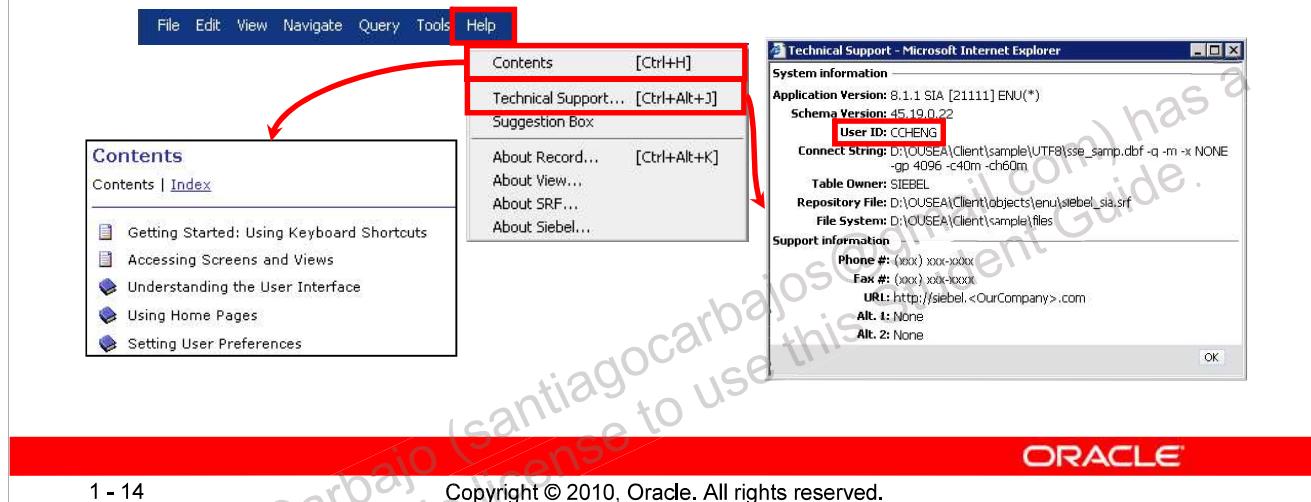


Common Siebel Application Business Entities

Screenshot: The screenshot shows a row of screen tabs along the top that provide access to areas of the application (or the more common business entities).

Help Menu

- Select the Help menu to access online help
 - Includes documentation for common end-user tasks
- Select the Technical Support menu item to view technical details
 - Includes current User ID and contact information for support

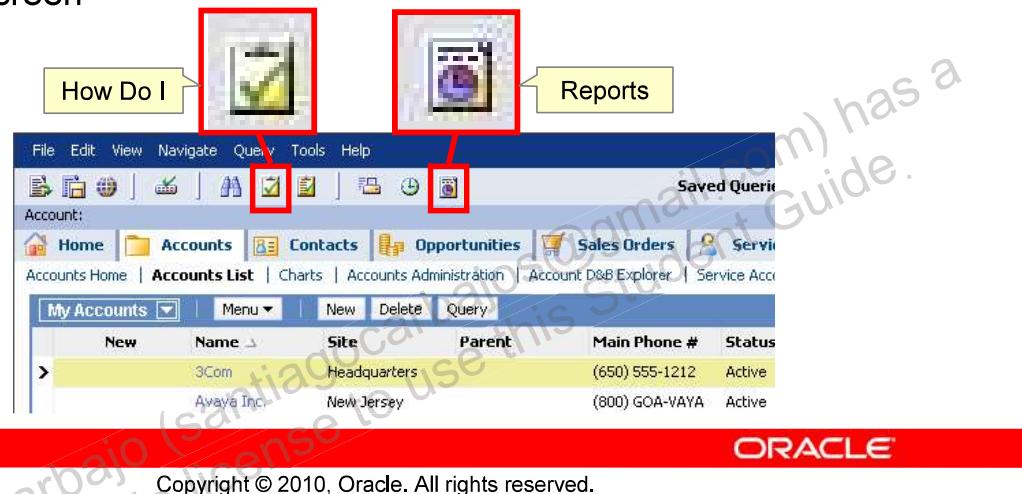


Help Menu

Screenshot: The screenshot shows the result of selecting the application-level Help menu. Selecting Help > Contents shows documentation links. Selecting Help > Technical Support shows the application version, User ID, Support Information, and so on.

Global Toolbar

- Displays context-sensitive tasks and reports associated with the current screen
 - Click the **How Do I** button to access iHelp, which provides guidance with tasks
 - Click the **Reports** button to access reports for the current screen



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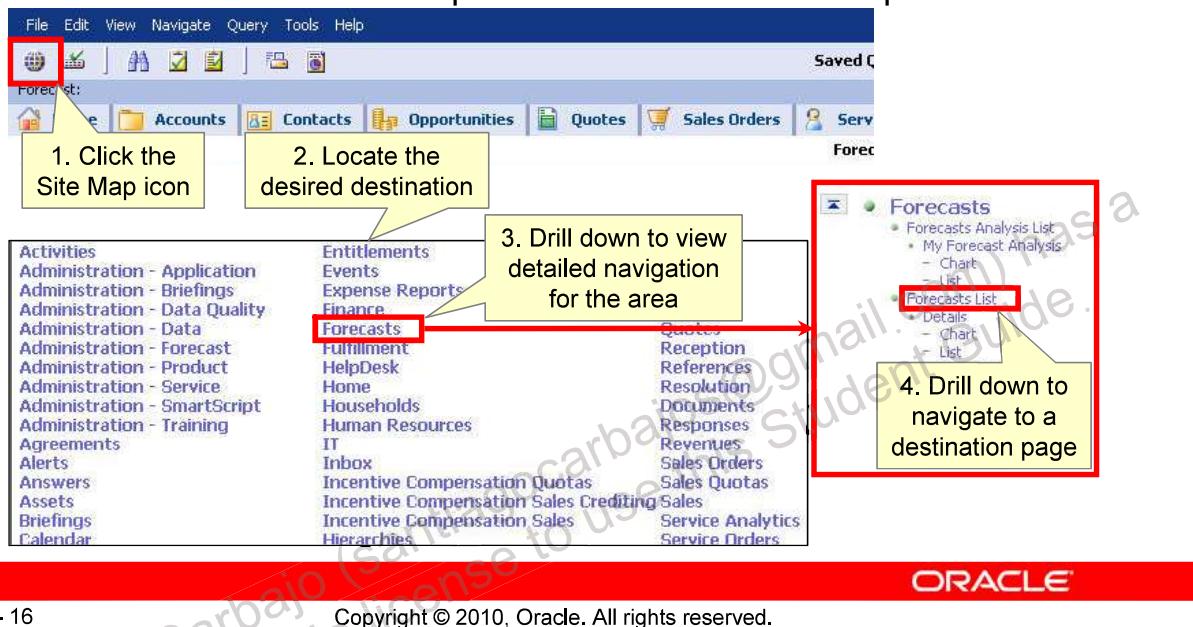
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Global Toolbar

Screenshot: The screenshot shows the global toolbar and highlights the "How Do I" icon which looks like a clipboard with a check mark as well as the "Reports" icon that looks like a pie chart.

Site Map

- Use the Site Map on the Global Toolbar to view a list of all application areas available to the user
 - Available areas depend on the user's access permissions



Site Map

User Permissions: Determining which areas a user can access will be discussed in a subsequent lesson.

Screenshot: The screenshot shows the user clicking on the "Site Map" icon. It is the left-most icon on the global toolbar and looks like a globe. That displays many links that represent application areas, such as Forecasts. Clicking on a link navigates within the page to an expansion of the area. For example, Forecasts expands to include a sub link for Forecasts List. Clicking on the sub link navigates to the destination page and displays the forecast data.

Screens

- Provide access to data related to a functional business area, such as accounts, contacts, or opportunities

The screenshot shows the Siebel Application Administration interface. At the top, there is a menu bar with options like File, Edit, View, Navigate, Query, Tools, and Help. Below the menu is a toolbar with icons for Home, Accounts, Contacts, Opportunities, Quotes, Sales Orders, and Service. A yellow callout bubble labeled "Screen tab" points to the "Accounts" icon in the toolbar. Another yellow callout bubble labeled "Screen" points to the "Accounts" link in the main navigation bar. The main content area displays a grid of account records. One record for "Marriott International HQ" is selected and expanded, showing detailed information in a form below the grid. The bottom of the screen features a red footer bar with the Oracle logo and copyright information.

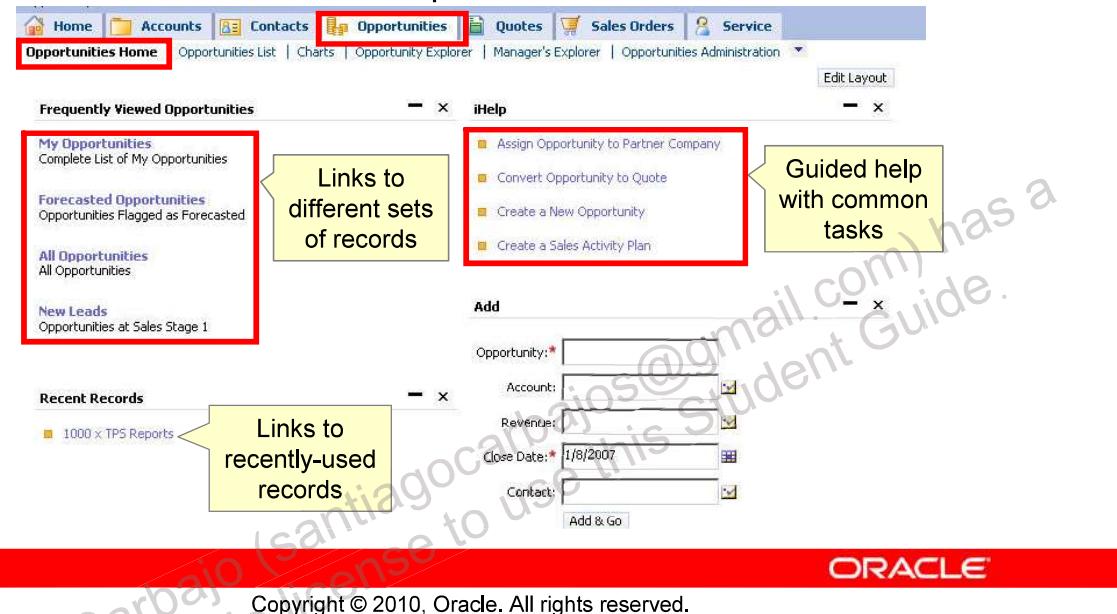
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Screens

Screenshot: The screenshot shows the Account screen tab highlighted. The screen includes all the links under the screen tab.

Screen Home Page

- Provides quick access to common user tasks and data
- May be customized by an administrator or by the user
 - Details are in a subsequent lesson



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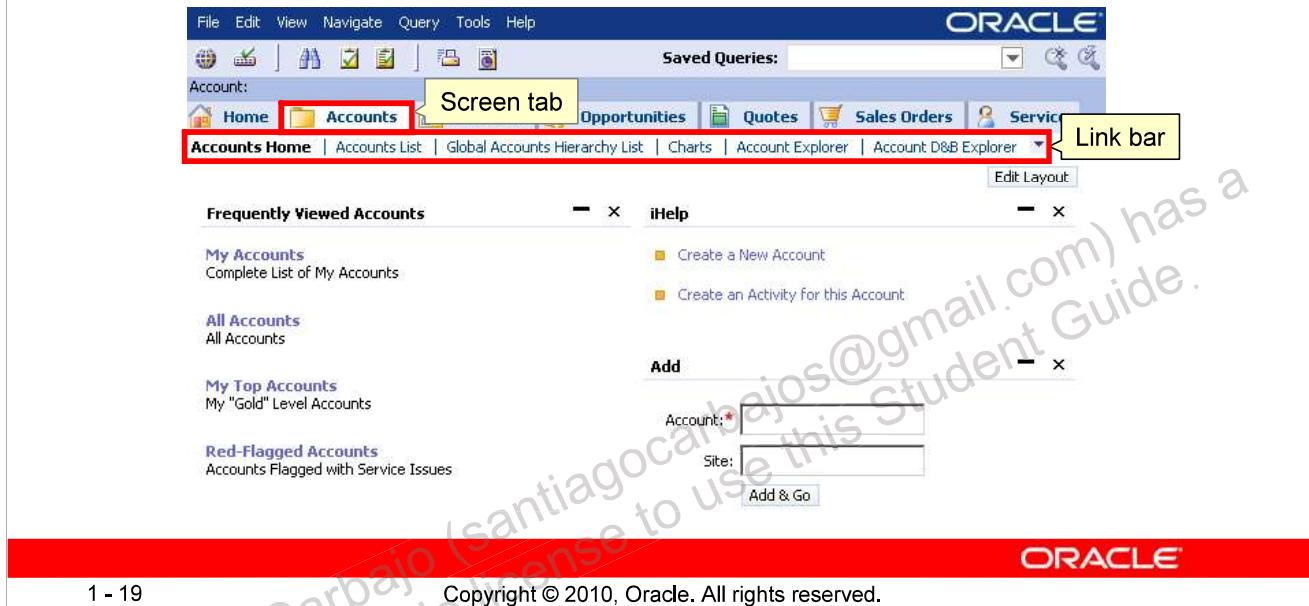
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Screen Home Page

Screenshot: The screenshot shows the Opportunities screen tab and the Opportunities Home link selected. This shows the Opportunities Screen Home Page. On the top left are links to Frequently View Opportunities that show different subsets of opportunities. On the top right is a list of iHelp tasks that help guide users through common tasks. On the bottom left is a list of links to recently-used records. On the bottom right is an area that allows a user to quickly add a new record.

Screen Navigation

- Click a screen tab to display an entity's Home Page
- Each Home Page includes a Link Bar
 - Use the Link bar to access specific data about the entity



Screen Navigation

Screenshot: The screenshot shows the Accounts screen tab selected. There are links in a row beneath it that allow access to details about the account data. These links are known as the link bar.

View Tabs

- Provide additional information for records:
 - For example, display child records that are associated with a parent record, such as the contacts for an account

The screenshot shows the Siebel Accounts screen. At the top, there's a toolbar with File, Edit, View, Navigate, Query, Tools, Help, and a Saved Queries dropdown set to 'All Accounts'. Below the toolbar is a menu bar with Home, Accounts, Contacts, Opportunities, Quotes, Sales Orders, and Service. Under 'Accounts' is a sub-menu with Accounts Home, Accounts List, Global Accounts Hierarchy List, Charts, Account Explorer, Account D&B Explorer, Service Explorer, and Accounts Administration. The main area is titled 'Ace Properties' and contains a form with fields for Account Name (Ace Properties), Site (Headquarters), Account Team (CCHENG), Status (Active), Address (675 North First Street), Address Line 2 (Suite 700), City (San Jose), State (CA), Zip Code (95112), Main Phone # (408) 905-3050, Main Fax #, Country (USA), URL (www.aceproperties.com), Territory, and Industries (Investment offices). Below the form is a tab bar with More Info, Activities, Attachments, Contacts, View tab (which is selected and highlighted in yellow), Notes, Opportunities, Revenues, Service Requests, Payment Profile, Orders, and Quotes. The 'View tab' section displays a table of contacts:

Mr/Ms	First Name	Last Name	Middle Name	Job Title	Work Phone #	Mobile Phone #	Email	Status
Ms.	Roberta	Baker		Director, Marketing	(650) 323-3231		rbaker@aceproperti	
Mr	Joe	Jolley		CIO	(650) 323-3229			
Mr	Todd	Galan		Project Manager	(650) 323-9000			
				CEO	(650) 323-3225			
				VP, Sales	(408) 551-0100			

Annotations highlight specific elements: a red box around the contact form is labeled 'Parent record'; a yellow box around the 'Selected record' row (the second row) is labeled 'Child records'; a yellow box around the 'Row indicator' (the first column) is labeled 'Row indicator'.

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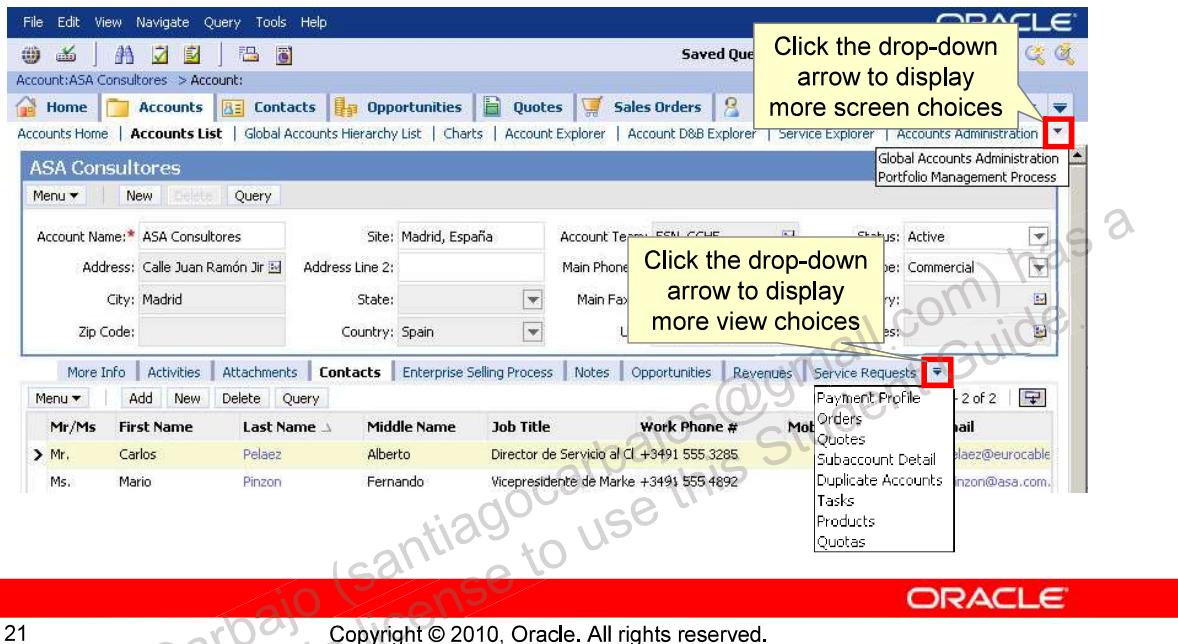
View Tabs

More Info: The More Info view tab shows more information about the selected record, rather than showing associated records. For example, the Activities view tab on the Accounts screen shows the Activities associated with the selected Account. On the other hand, the More Info view tab on the Accounts screen shows additional information about the selected Account itself.

Screenshot: The screenshot shows the Accounts screen tab and the Account List link in the link bar selected. Half way down the screen the Contacts view tab is selected. This displays an account "parent" record on the top and a listing of contact "child" records on the bottom. The selected record in the list is highlighted in yellow highlight and has a > at left of the row.

Drop-down Arrows

- Click drop-down arrows to provide access to more screen tabs, link bar, and view tabs



Drop-down Arrows

Screenshot: The screenshot shows that if there are more links than can fit in the display in the link bar, an arrow is displayed at the right of the link bar row. Selecting this drop-down arrow displays more link choices that you can select. Similarly if there are more view tabs than can fit in the display, an arrow is displayed at the right of the tabs (in the middle of the screen) that you can select to display more choices.

Hyperlinks

- Many fields in the application are hyperlinks
 - Indicated by their color (blue by default)
- Drill down on a hyperlink to navigate to a detailed view

The left screenshot shows a list of accounts. The account 'AMCO Communications' is highlighted in blue, indicating it is a hyperlink. A red arrow points from this highlighted account to the right screenshot, which shows a detailed view of the account. The right screenshot displays the account's address, city, state, zip code, and country. It also shows a 'Contacts' tab, which is selected, displaying a grid of three contacts: Joshua Brown (Student), Cindy Citrus (VP Manufacturing), and Cynthia Farhi (Production Manager).

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Hyperlinks

Screenshots: The left screenshot shows a listing of accounts with the Account Name in blue, which indicates a hyperlink. Clicking the Account Name navigates the user to a different page that displays more details about the Account (such as the Contacts associated with the Account).

List Applets and Form Applets

- List applets display data for multiple records
- Form applets display detailed data for a single record
 - Details for the selected record in a list applet frequently appear in a form applet below the list applet

The screenshot shows the Siebel Accounts screen. At the top, there is a navigation bar with tabs: Home, Accounts, Contacts, Opportunities, Sales Orders, Service, Communications, and Calendar. Below the navigation bar, a breadcrumb trail shows: Accounts Home -> Accounts List -> Charts -> Accounts Administration -> Account D&B Explorer -> Service Account Explorer -> Account Explorer. The main area has two sections:

- List applet:** A table titled "My Accounts" showing a list of accounts. The columns are: New, Name, Site, Parent, Main Phone #, Status, and Account. The first row, "3Com", is highlighted in yellow and serves as the selected record. The table has 22 rows in total, with page numbers "1 - 10 of 22" at the bottom right.
- Form Applet:** Below the list applet, a detailed view for the selected account "3Com". It includes fields for Account Name (3Com), Address (7078 N Clark St), City (Chicago), Zip Code (60626), State (IL), Country (USA), Main Phone # (650) 555-1212, Main Fax # (650) 555-0101, and URL (www.3com.com). A callout bubble points to the "3Com" entry in the list applet with the text "Details for selected account".

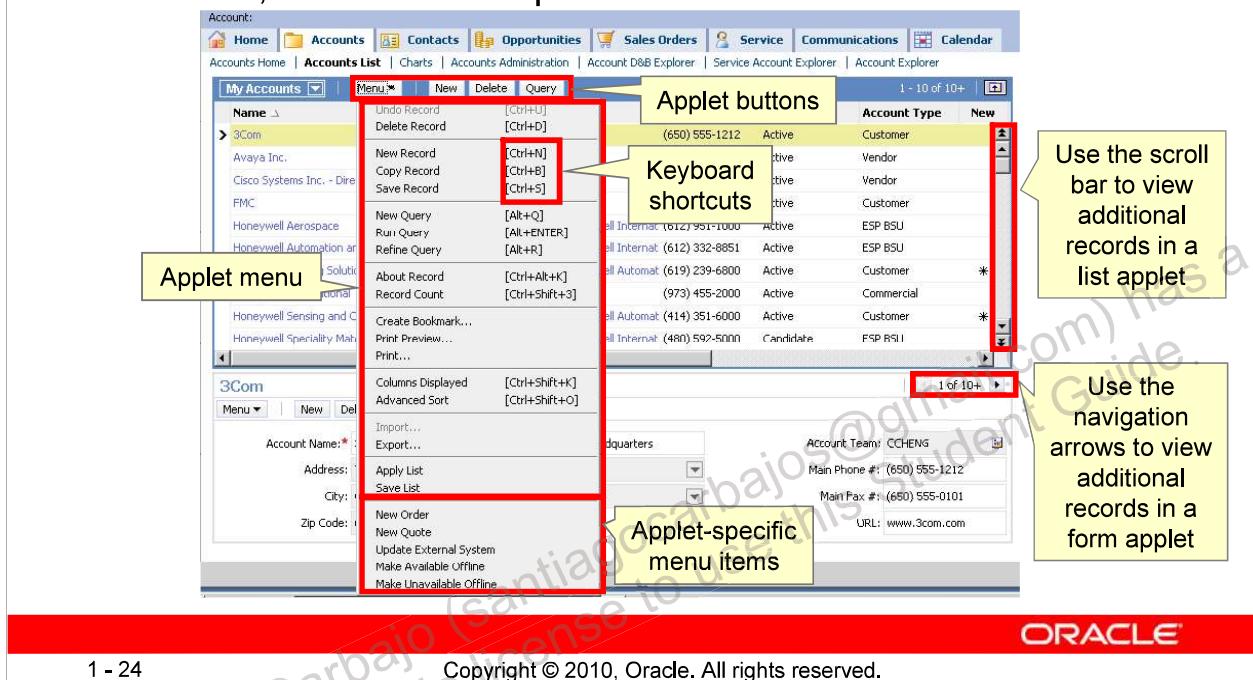
Annotations with yellow boxes and arrows point from the text labels "List applet" and "Form Applet" to their respective sections on the screen.

List Applets and Form Applets

Screenshot: The screenshot shows the Accounts screen tab and the Accounts List link selected. This displays a listing of accounts at the top of the screen. The listing is known as a list applet. It shows column headings across the top and data in rows below. Below that, in the bottom of the screen, details for the selected Account in the list are shown in a form. This is known as a form applet. It displays several labels to the left of individual data items.

Applet Actions

- Use the applet buttons, menu, keyboard shortcuts, scroll bars, and arrows to perform actions on records



Applet Actions

Applet Menu: Display the applet menu by either clicking the Menu button or by right-clicking anywhere in the applet.

Keyboard Shortcuts: Most actions in Siebel CRM applications have associated keyboard shortcuts; for example, use Ctrl-N to create a new record. For a list of keyboard shortcuts, see "Using Keyboard Shortcuts" in *Siebel Fundamentals*.

Screenshot: The screenshot shows the applet menu, which is to the right of the applet title at the top. Expanded, it contains items such as Delete Record [Ctrl+D], New Record [Ctrl+N], and so on. The screen shows a top list applet and a bottom form applet. To the right of the list applet is a vertical scroll bar that can be used to scroll through the records listed. At the top right corner of the form applet are buttons that can be used to move forward and backwards through the records one by one.

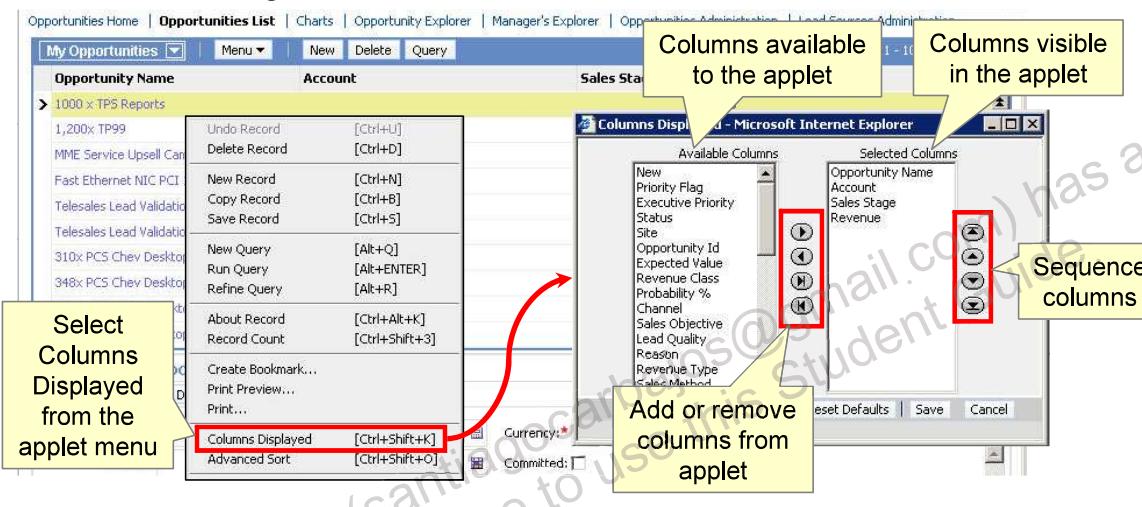
Customizing List Applets

- Users frequently need to customize how list applets are displayed in order to improve their productivity
 - Display or hide columns
 - Rearrange the columns
 - Lock a column in place (for example, the Name column) and scroll to the right to see additional columns



Displaying and Reordering List Columns

- Use Columns Displayed to change and reorder the columns displayed in an applet
 - In HI mode, you can also drag-and-drop columns to rearrange them

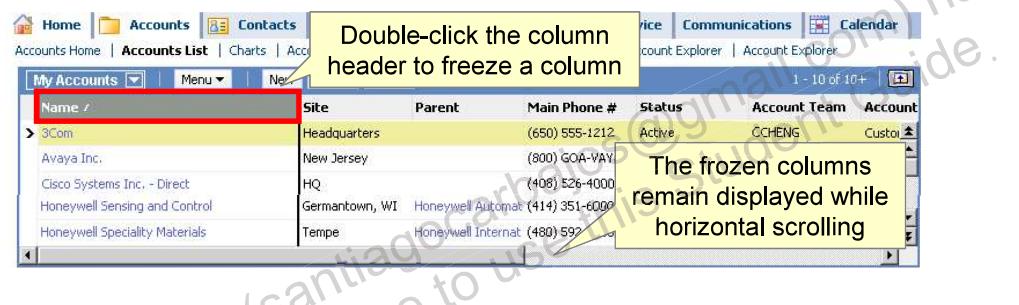


Displaying and Reordering List Columns

Screenshot: The screenshot shows an opportunity list applet. Right-clicking in the applet displays the applet menu. Selecting Columns Displayed from this menu displays a dialog box. In the dialog, the Available Columns appear in a column on the left and the Selected Columns appear in a column on the right. There are arrows between the Available Columns and the Selected Columns to move the items back and forth. There are arrows to the right of the Selected Columns to move columns up and down to sequence them for display.

Locking List Columns

- To freeze one or more list columns:
 - Double-click a column header within a list applet to freeze one column
 - Enhances ability to work effectively with lists that contain many columns of data
 - Drag and drop additional columns in and out of the frozen area
- Only available in HI mode



Locking List Columns

Screenshot: The screenshot shows an account list applet. The Name column header is grey, indicating that the column is frozen in place. The user can then use the horizontal scroll bar at the bottom of the list applet to scroll to other columns. The locked column stays in place.

Sorting Data in List Columns

- Click a column header to sort data in ascending or descending order
 - Not available for all columns
 - Scrolling over the column header will either display (Sortable) or (Not Sortable)

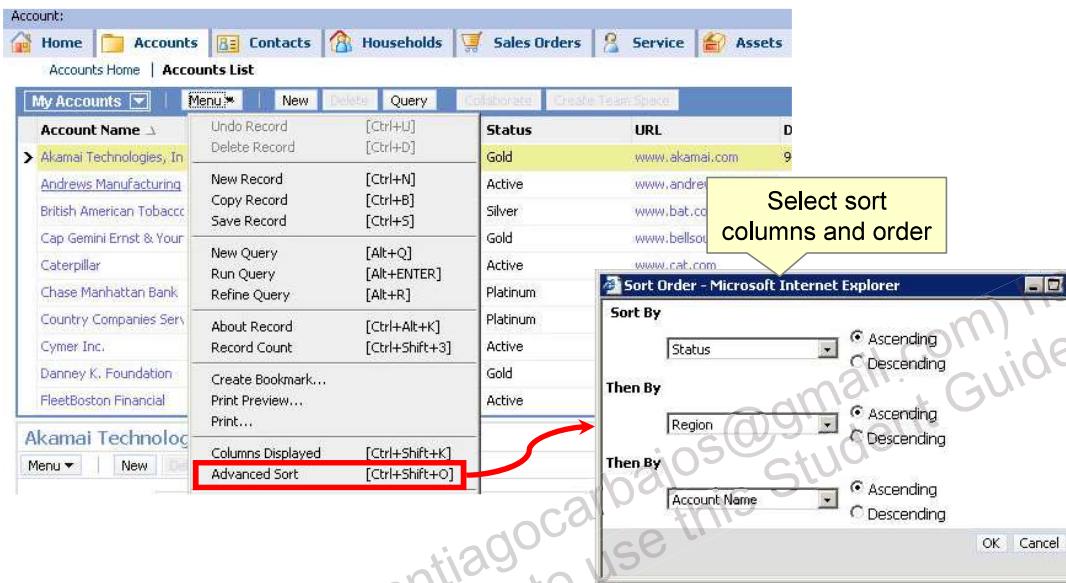
Name	Site	Parent	Main Phone #
3Com	Headquarters		(650) 555-1212
ABC Software			
ADR Solutions	Headquarters		(650) 653-5490
APEX Communications	Northern California		(415) 888-9900
AWIT System, Inc	Sunnyvale		
Aikon AG	Salo, Finland		(443) 128-9786
Altera	San Jose, Ca		(408) 544-7000

Sorting Data in List Columns

Screenshot: The screenshot shows an account list applet. The Name header column has an up arrow to the right of the Name indicating that the data is listed in ascending order by Name. Click the column header to change the order to descending.

Sorting Data in List Columns

- Select Menu > Advanced Sort to sort using values from up to three columns at once



Sorting Data in List Columns

Screenshot: The screenshot shows an account list applet with the applet menu's Advanced Sort item selected. This shows a dialog that allows the user to sort by one column, then another, and then another in either ascending or descending order. The example shows sorting by Status, then Region, then Account Name all in ascending order.

Show More Records

- Click the Show More button to toggle display of more records
 - For form applets, Show More shows more details

The screenshot shows the Siebel Application Administration interface. At the top, there's a navigation bar with links like Home, Accounts, Contacts, Households, Sales Orders, Service, and Assets. Below it is a sub-navigation bar for 'Accounts List'. The main area is a grid titled 'My Accounts' with columns for Account Name, Site, Main Phone #, Status, URL, and DUNS #. The grid displays 10 of 27+ records. A red arrow points from the bottom left towards the top right corner of the grid, where a 'Show More' button is located. A callout box with a yellow arrow points to this button, containing the text 'Click Show More ... to see more records'. The bottom of the screen has a red footer bar with the text '1 - 30' and 'Copyright © 2010, Oracle. All rights reserved.' On the right side of the footer, the word 'ORACLE' is written vertically.

Show More Records

Number of Records Shown: To modify the number of records shown (10 for "standard" list applets, 20 after "Show More" is clicked) requires the use of Siebel Tools, and hence is a developer task, not an administrative task.

Screenshot: The screenshot shows the account list applet. At the top right of the applet there is an icon that looks like a folder with a down arrow. This is the Show More button. Clicking that expands the display to display more records in the list (such as from 10 to 20). It also toggles the icon to the Show Less icon which looks like a folder with an arrow pointing up.

Lesson Highlights

- Siebel CRM applications provide you a way to effectively manage customer relationships
- Siebel CRM applications support different client access modes
 - High Interactivity and Standard Interactivity
- The Application Home Page, which displays after log in, provides access to frequently-used data
- The global toolbar, link bar, and view tabs assist with navigation
- Screens provide access to data related to functional business areas
- A list applet lists data for multiple records
- A form applet provides detailed data for a single record

Practice 1 Overview: Exploring Siebel CRM Applications

This practice covers the following topics:

- Logging in to a Siebel CRM application
- Exploring the Site Map, screens, and applets

Working with Data in Siebel CRM Applications



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Objectives

After completing this lesson, you should be able to:

- Create, modify, and delete records
- Query for records
- Identify common business entities (Accounts, Contacts, Activities, Opportunities, and Quotes)
- Describe relationships between these entities

Working with Data in the Siebel User Interface (UI)

- To administer the Siebel CRM application, you may need to:
 - Create a new record
 - Modify and save a record
 - Use a picklist
 - Use a multi-value group (MVG)
 - Delete a record



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Working with Data in the Siebel User Interface (UI)

Note that the tasks here are not administrator-specific; all users, including administrators, must be familiar with these tasks.

Reference: *Siebel Fundamentals*

Create a New Record

- Navigate to an applet containing the correct record type
 - For example, the Opportunities list applet
- Click the New button
 - Alternatively, choose your preferred method:
 - Select New Record from the applet-level menu
 - Use the CTRL+N keyboard shortcut



Create a New Record

Shortcuts: Many other operations on records can also be invoked in multiple ways: using the applet's menu button or right-clicking within the applet to bring up the applet-level menu, clicking an applet button, or using a keyboard shortcut like CTRL+N.

For example, deleting a record can be accomplished by one of the following:

- Select Menu > Delete Record
- Right-click and then select Delete Record
- Click the applet Delete button (if available for the applet)
- Type CTRL+D

For simplicity, the slides will focus on either the applet buttons (if they are available), or on the applet-level menu.

Screenshot: The screenshot shows that new records may be created by clicking the New button, selecting New Record from the applet-level menu, or by pressing Ctrl+N. The New button is just to the right of the applet-level menu.

Enter Record Data

- Enter data for the new record
 - The data may be entered in either a list or a form applet
- Some fields are required:
 - These are marked with a red asterisk in a form applet
- Some fields are pre-populated with default values

The screenshot shows the Siebel Opportunity form applet. At the top, there is a menu bar with options: Menu, New, Delete, and Query. Below the menu, there are several input fields:

- Opportunity Name:** * [Text Box] (highlighted with a red box)
- Revenue:** \$0.00 [Text Box]
- Currency:** * USD [Text Box] (highlighted with a red box)
- Close Date:** * 1/7/2007 [Text Box] (highlighted with a red box)
- Committed:** [Check Box]
- Sales Stage:** [Text Box]
- Probability %:** 0% [Text Box]
- Lead Quality:** [Text Box]
- Organization:** Default Organization [Text Box]

Annotations with yellow callouts point to specific fields:

- A callout points to the "Opportunity Name" field with the text: "Required field indicated by red asterisk".
- A callout points to the "Close Date" field with the text: "Required field populated with default value".

At the bottom of the form, there is a red footer bar with the ORACLE logo and copyright information: "Copyright © 2010, Oracle. All rights reserved."

Enter Record Data

Default Data: Some fields automatically populate with default data when a new record is created. For example, when a new opportunity is created, Date Opened defaults to the current date, Status defaults to Open, and Substatus defaults to Unassigned. Default values can be modified by a developer using Siebel Tools.

Screenshot: The screenshot shows the Opportunity form applet. There are asterisks next to the Opportunity Name and Close Date fields, indicating that they are required fields for a new Opportunity. The Close Date is populated with a default value of today's date. Non-required fields may also have default values; for example, the Revenue field defaults to \$0, the Probability % defaults to 0%, and the currency defaults to the configured default currency; in this case, U.S. Dollars. You will learn more about setting default currencies in a subsequent lesson.

Modify and Save a Record

- To modify data in a record:
 - Select a field in the list or form applet and change it
- To save data implicitly:
 - Step off the record in a list or a form applet to commit it to the database
 - Only available in High Interactivity (HI) mode
- To save data explicitly:
 - Select Save Record from the applet-level menu



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Modify and Save a Record

Explicit saves: By default, the application will warn you if you try to move off of a record in Standard Interactivity (SI) mode without saving it.

Screenshot: The screenshot shows the Save Record applet menu item. In SI mode, you must select Save Record from the applet-level menu or click Ctrl+S to save a modified record.

Use a Picklist

- Some fields use picklists to allow you to select a field value from a list of available values
 - Assists in assigning a specific value to a field during record creation and modification
 - Avoids data entry errors
- Two types of picklist:
 - Static: select a value from a fixed dropdown list
 - Dynamic: select a value from a list of changing values
 - Examples: Accounts, Opportunities, Contacts
- Visual Cues
 - A static pick field displays an arrow  Mr.
 - A dynamic pick field displays a Select icon  Atherton Group

Use a Picklist

Pick Field: A pick field is the list column or form field that presents a static or dynamic picklist.

Bounded or Unbounded Picklists: A pick field can be configured in one of two ways: A "bounded" picklist requires the user to choose a value from the dropdown list, while an "unbounded" picklist allows the user to either pick a value from the list or to enter a value not in the list.

Administering Picklists: As an application administrator, you will administer the values available to static picklists. Details are in a subsequent lesson.

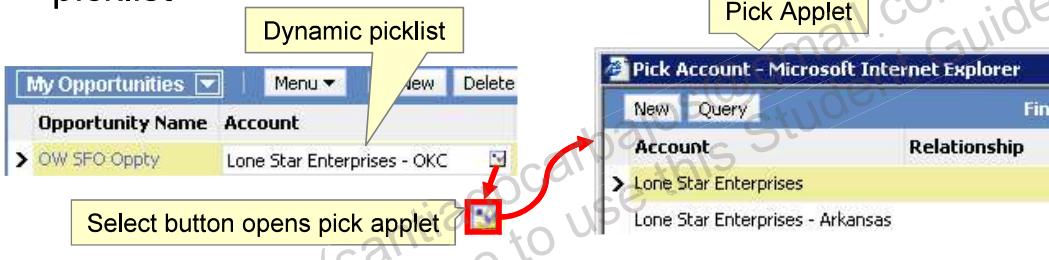
Images: The first image shows the drop-down arrow icon for the Title static picklist, where the user can select Mr., Ms., Mrs., or so forth. It is a downward-pointing arrow at the right of the field. The second image shows the icon for a dynamic picklist, where the user can select an Account to associate with an Opportunity. It is a small square at the right of the field that includes one dot in the upper left and a check mark in the lower right.

Using Picklists: Examples

- An Opportunity's Sales Stage is selected using a bounded static picklist
 - The user must select a value from the dropdown list



- An Opportunity's Account is selected using a dynamic picklist



Using Picklists: Examples

Data from Dynamic Picklists: When a user selects a record using a dynamic pick list; for example, an Account Address, multiple values from the record may be returned and shown in the applet; for example, address, city, state, and Zip code.

Screenshots: The first screenshot shows the Opportunities List Applet, with the Sales Stage static picklist expanded as a drop-down list (by clicking the drop-down arrow). The available values are 01 - Prospecting, 02 - Qualification, 03 - Closing, and 04 - Lost. The second screenshot once again shows the Opportunities List Applet, with the Account field selected, exposing the dynamic picklist pick button. The final screenshot shows the pick applet that is invoked when you click the pick button, listing the available Accounts that may be associated with the selected Opportunity.

Use Multi-Value Groups

- A Multi-value group (MVGs) allows you to assign one or more child records to a field or fields in a record
- Only one value is displayed in the list or form at a time
 - The displayed value is the "primary" child record
 - Click the Select control to view or modify all of the child records using an MVG applet

The screenshot shows a Siebel application interface. At the top, there is a form with fields for 'Account Team' (set to 'SADMIN') and 'Main Phone #' (set to '(773) 326-5000'). Below this is a 'Team Members - Microsoft Internet Explorer' window. The window has two tables: 'Available' and 'Selected'. The 'Available' table lists several account team members with their last names, first names, user IDs, positions, and divisions. The 'Selected' table shows the chosen members, with one member ('Reed') designated as the 'Primary' record, indicated by a checkmark next to their name. A red box highlights the 'Select' control in the 'Available' table header. A yellow box labeled 'Click the MVG Select control' points to this highlighted area. Another yellow box labeled 'Select values from the MVG applet' points to the 'Selected' table. A red arrow points from the 'Available' table to the 'Selected' table, indicating the transfer of selected values. A yellow box labeled 'Primary record' points to the 'Primary' column in the 'Selected' table. The Oracle logo is visible at the bottom right of the application window.

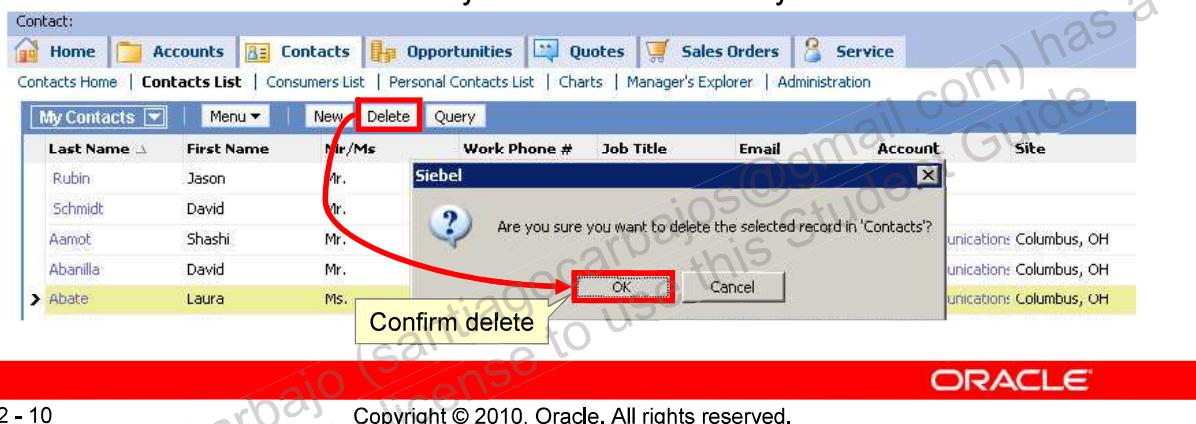
Using Multi-Value Groups

Primary Child Record: Primary records are used both to improve performance and to support access control. Both of these topics will be discussed later in this course.

Screenshot: The screenshot shows the Account Team field from the Opportunity Detail Applet (a form applet). The MVG Select control is highlighted. Clicking the MVG Select control brings up an MVG applet, that allows the user to add or remove Account team members. One Account team member is designated the primary Account team member, as indicated by a check mark next to that team member. Once the MVG applet is closed, the primary Account team member will be displayed in the Account Team field of the Opportunity Detail Applet.

Delete Data

- Select a record and click the Delete button to delete it
 - Typically, you will be asked to confirm this deletion
- Some records may be read-only or configured so that only their owners may delete them
 - As an application administrator, you may need to navigate to the data administration screens to delete these records
 - Some records may not be deleted in any case



Delete Data

Shortcuts: As previously mentioned, there are multiple ways to delete a record. You may use the Delete button, select Delete Record from the applet-level menu, or use Ctrl+D to delete the record.

Screenshot: The screenshot shows the Contacts List Applet, with the Laura Abate record selected. Clicking the Delete button (highlighted in the picture, just to the right of the New button) brings up a confirmation dialog box (shown). Click OK in the dialog box to confirm that you want to delete the record.

Query for Data in the Siebel UI

- To successfully administer the Siebel application, you must be able to query for records of interest:
 - Create and execute a query
 - Use the Query Assistant
 - Query an MVG field
 - Refine a query
 - Save a query
 - Execute predefined and saved queries



Query for Data in the Siebel UI

Once again, all users, including administrators, must be able to query for data.

Create and Execute a Query

- Create a query by clicking the applet's Query button
- Enter query strings in one or more fields of the applet
 - Each field specifies whether or not a query on it is case-sensitive
 - By default, queries have a trailing wildcard
- Click the Go button or press Enter to execute the query



Create and Execute a Query

Trailing Wildcard: A system administrator can enable or disable the trailing wildcard by modifying the parameters for the application object manager. Details about application object manager parameters are in a subsequent lesson.

Shortcuts: In addition to the "standard" ways to create a query (button click, applet-level menu, keyboard shortcut), the application-level menu has a Query menu that allows you to create queries.

Screenshot: The screenshot shows a user creating a query on the Account List Applet. Each field shows <Case Required> if the query is case-sensitive. The user has entered "IN" in the Name field, which will find all Accounts whose Names start with IN, as there is an automatic trailing wildcard on queries.

Wildcards

- Use wildcards to search for matching characters
- * is a substitute for zero or more characters in a string query
 - * cannot be used in date or numeric fields
 - Examples:
 - Ma* matches "Madrid", but not "San Mateo"
 - *Ma* matches "Madrid" and "San Mateo"
- ? is a substitute for exactly one character in a string query
 - ? cannot be used in date or numeric fields
 - Examples:
 - st?r matches star and stir, but not stair
 - *st?r matches monster and rock star, but not tastier

Query Operators

- Use relational operators to search for records satisfying a relationship with the query string:
 - < (less than)
 - > (greater than)
 - = (equal to)
 - <= (less than or equal to)
 - >= (greater than or equal to)
 - <> (not equal to)
- Example:
 - Find quotes created on or after 1/1/2006
 - Solution: Set the Created field in the query to: >= 1/1/2006

The screenshot shows a Siebel application window titled "All Quotes Across Organizations". The window has a toolbar with "Menu", "Go", "Cancel", "Query Assistant", and "Enter Query" buttons. Below the toolbar is a table header with columns: Name, Quote #, Revision, Created, Account, and Last Name. A row of filters is shown below the header: > <Case Required>, <Case Required>, >=1/1/2006, <Case Required>, <Case Required>. The "Created" column filter is highlighted with a red box. At the bottom of the window is a red footer bar with the "ORACLE" logo.

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Query Operators

Screenshot: The screenshot shows a query being performed on the Quotes List Applet. The Created field has been populated with the string ">=1/1/2006". This query would return all quotes created on or after January 1, 2006.

Additional Query Operators

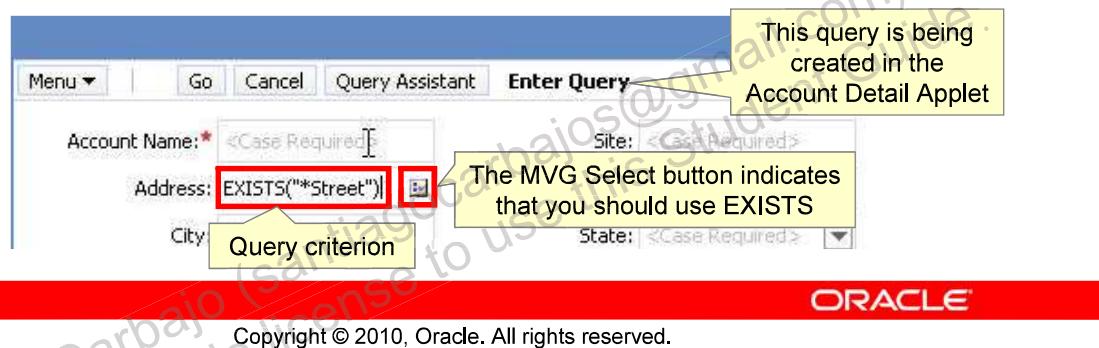
- OR allows a match on any one of multiple values for a field
- AND allows a match on all of multiple values for a field
- Other operators include
 - NOT: The record does not include the value
 - " ": Exact string match
 - IS NULL: Field is empty (not set)
 - IS NOT NULL: Field is not empty
 - ~LIKE: Perform a case-insensitive search
- Examples:
 - Find service requests with no description entered
 - Use IS NULL in Description field of Service Request

Additional Query Operators

Special Characters: Any characters that might be interpreted as query operators are reserved, and must be encased in quotes if you want to query for them. For example, IS, NOT, NULL, AND, and OR are reserved words and must be included in quotes. Reserved characters include the apostrophe ('), square brackets ([]), comma (,), parentheses (()), double quotes (""), tilde (~), and comparison operators (=<>). The asterisk (*) is always used as a wildcard.

Query an MVG Field: Using EXISTS()

- You may need to use EXISTS() to search for non-primary matches in multi-value groups (MVGs)
 - EXISTS queries all child records in an MVG
 - Example: You wish to query for all accounts whose addresses end with the word "Street"
 - An account can have multiple addresses, hence the address field is an MVG
 - Use EXISTS("*Street") to match all accounts with one or more addresses ending with the sub-string "Street"



Query an MVG Field: Using EXISTS()

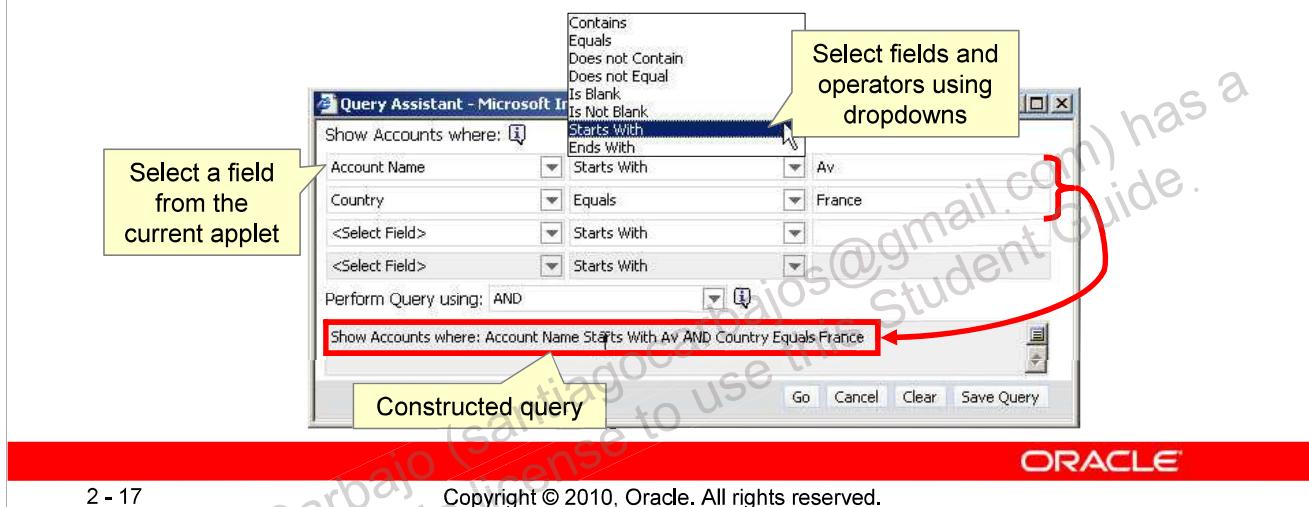
Default Behavior: As an application administrator, you modify the system preferences to determine whether or not queries include the EXISTS() operator by default. The advantage of including an EXISTS() by default is that users do not need to use EXISTS(). The disadvantage is that queries on MVG fields take significantly longer with the default EXISTS() enabled. Details on enabling or disabling the default EXISTS() are in a subsequent lesson.

Primary Records: You never need to use EXISTS() to query for primary records. For example, a query string of *Street would always return all Accounts whose primary addresses ended with Street.

Screenshot: The screenshot shows a query being performed on the Account Detail Applet. The Address field has an MVG Select button, indicating that you should use EXISTS if you want to find all possible addresses ending with Street. The query criterion is EXISTS("*Street").

Use the Query Assistant

- Use the Query Assistant to easily perform complex queries
 - Guides users through creating a query
 - Users do not have to know query syntax or operators
- Click the Query Assistant button after clicking Query in a list or form

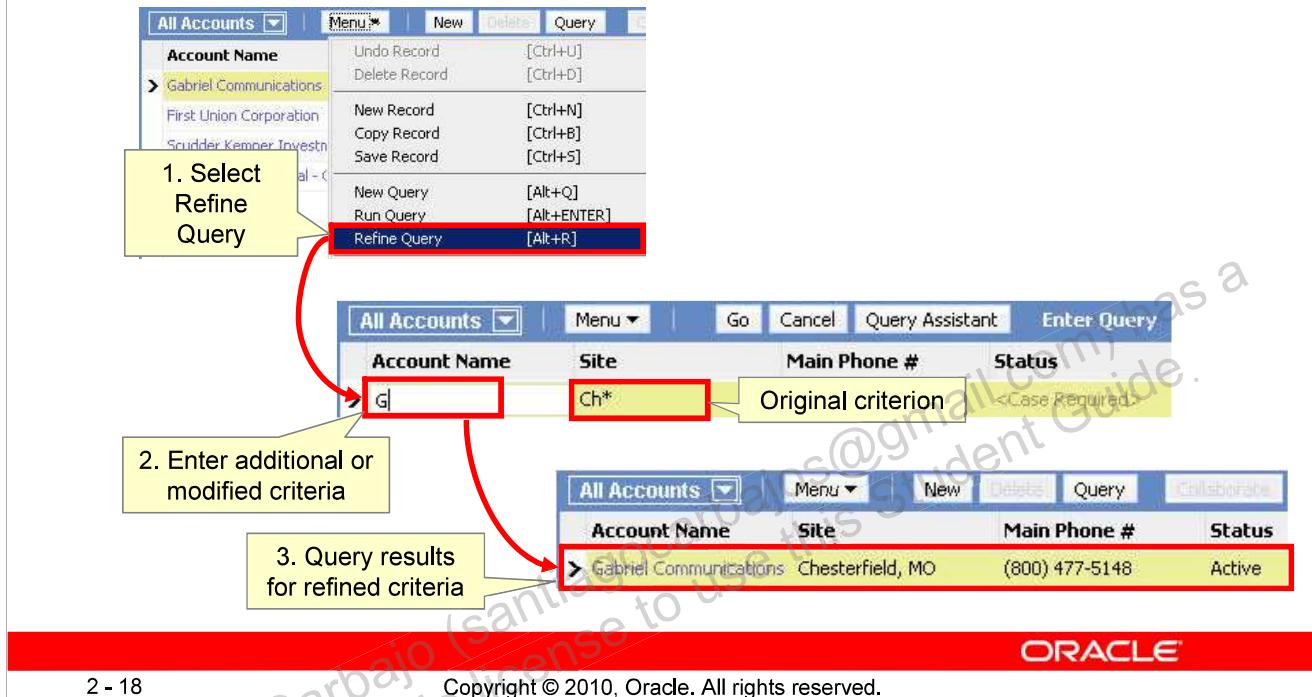


Use the Query Assistant

Screenshot: The screenshot shows the Query Assistant dialog box. This consists of four rows where users can select a field (such as Account Name), an operator (such as Starts With), and a string (such as Av). The user selects both the field and the operator using drop-down lists. The available operators for a string are Contains, Equals, Does not Contain, Does not Equal, Is Blank, Is Not Blank, Begins With, and Ends With. Numerical and date operators include comparisons such as Is Less Than or Is Greater Than Or Equal To. Once the user has selected the field(s) and operator(s), he or she can specify whether to combine the operations using AND or OR, and the final constructed query is shown at the bottom of the dialog box.

Refine a Query

- Use Refine Query to modify an existing query

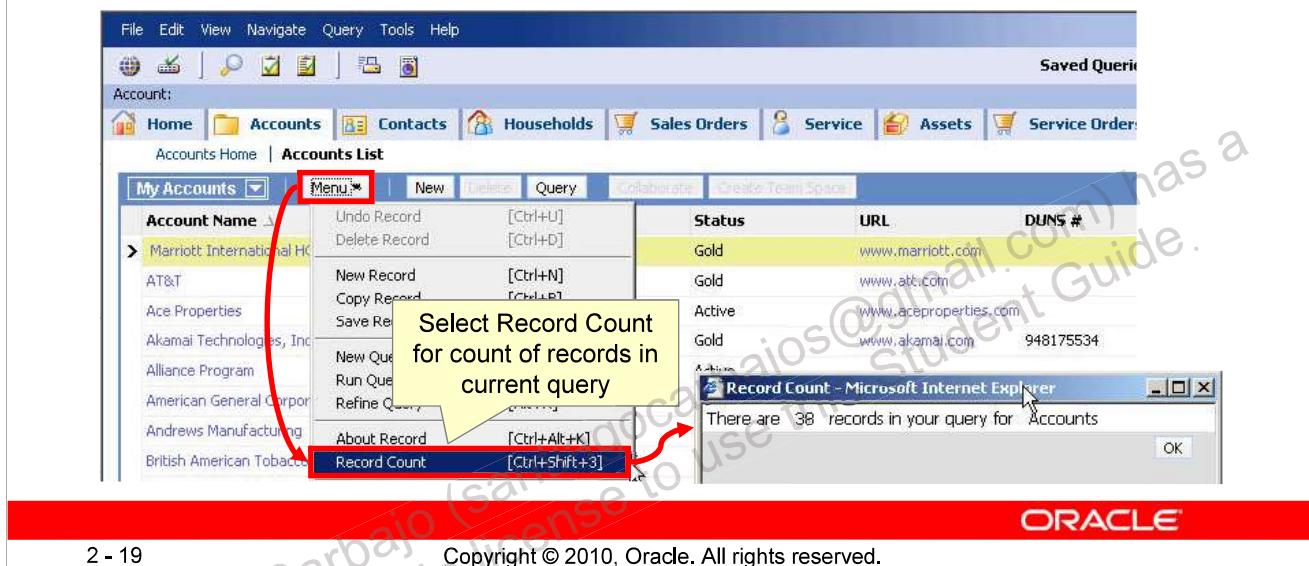


Refining a Query

Screenshots: The first screenshot shows the Accounts List Applet after performing a query for a Site of Ch*; that is, all Accounts whose Sites begin with Ch. The applet-level menu is expanded, and Refine Query is selected. The keyboard shortcut for Refine Query is Alt+R. The second screenshot shows the result of selecting Refine Query: A new query is created, with the original query criterion (Site = Ch*) already specified. The query is refined by entering a G in the Account Name field; this query will return all Accounts whose names begin with G, and whose sites begin with Ch. The final screenshot shows the result: A single account of Gabriel Communications with a site of Chesterfield, MO.

Record Count

- Use Record Count from the applet-level menu to determine the total number of matching records in the query
 - Available even if a query has not been performed

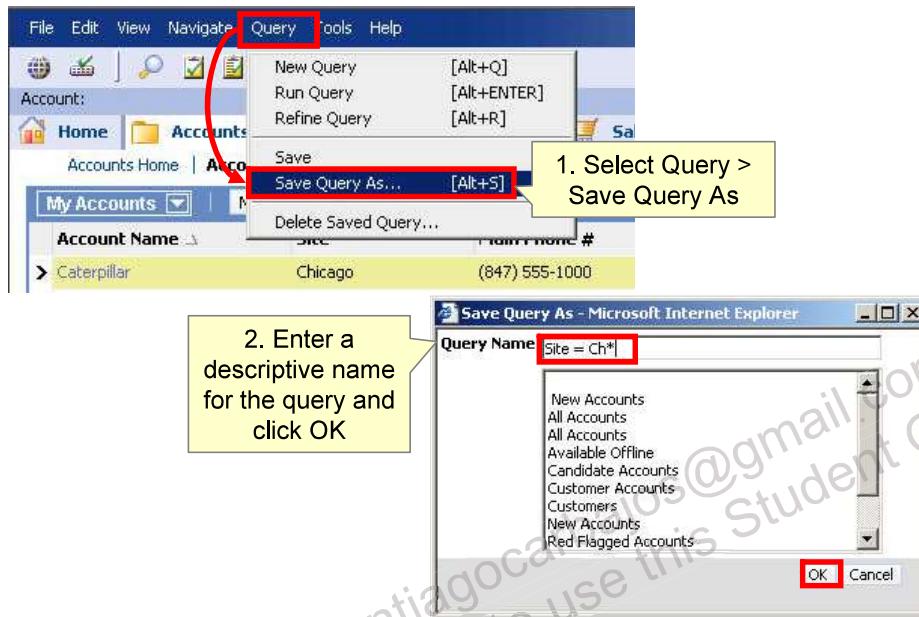


Record Count

Screenshot: The screenshot shows the Account List Applet, with the applet-level menu expanded and Record Count selected. The keyboard shortcut is Ctrl+Shift+3. The Record Count dialog box is shown as an inset, showing that there are 38 records in the current result set.

Save a Query

- Use the application-level Query menu to save a query



Save a Query

Administering Saved Queries: As an application administrator, you will administer saved queries. These are known as "predefined queries" (PDQs), and are the subject of a subsequent lesson.

Screenshots: The first screenshot shows the application-level Query menu expanded for the Account List Applet, with Save Query As selected. The keyboard shortcut is Alt+S. The second screenshot shows the Save Query As dialog box. The query name has been entered as "Site = Ch*", and the OK button is highlighted. To save a query, select Save Query As, enter a descriptive name in the Save Query As dialog box, and click OK.

Execute Predefined and Saved Queries

- The Saved Queries drop-down list shows:
 - Predefined queries created by the application administrator
 - Cannot be modified or deleted by an end user
 - Saved queries created and saved by the user
 - The end user may delete his or her own saved queries
 - All saved and predefined queries appear in the Saved Queries dropdown in alphabetical order
- Select a saved or predefined query to execute it



Execute Predefined and Saved Queries

Screenshot: The screenshot shows the expanded Saved Queries drop-down list, which is located in the upper right corner of the application, and includes many predefined queries such as Available Offline and Candidate Accounts, as well as the user-saved query Site = Ch*. The Site = Ch* saved query is selected. When the user releases the mouse button, this query will be executed.

Query Results and Data Access Control

- Different users may have access to different sets of data, depending on their position in the company
 - Example:
 - Vincent Parker, a District Sales Manager, has access to sales opportunities and revenues for his district, but does not see such data for other sales districts
 - Gail Neff, the VP of Sales, has access to opportunity and revenue data for all sales regions and districts
- Only the data that a user has access to will appear in a query result set
 - Configuring data access is discussed in a subsequent lesson

Entity Relationships

- As an application administrator, you may be asked to create, modify, or delete records representing Siebel business entities
- Many of these entities have relationships
 - Opportunities have related accounts
 - Service requests are owned by employees
 - Accounts and Contacts are in a many-to-many relationship
 - And so forth
- It is important to understand these relationships before modifying Siebel data

The Siebel Logical Model

- Is a collection of business entities and relationships between them that implements the business logic in a Siebel application
 - These entities describe:
 - Customers and their attributes (Accounts and Contacts)
 - User actions and tasks (Activities)
 - Revenue-related entities (Opportunities)
 - This lesson examines some of the most important business entities
 - Only a small subset of the Siebel Logical model
- Provides most of the functionality to support a company's customer-facing business processes

The Siebel Logical Model

References: The *Siebel Data Model Reference* provides extensive reference documentation on both the logical model and physical (database) components of the Siebel Data Model. The *Applications Administration Guide* provides more details on the business entities discussed in this lesson.

Common Siebel Business Entities

- Commonly-administered Siebel business entities include:
 - Accounts
 - Contacts
 - Opportunities
 - Activities
 - Service Requests



Common Siebel Business Entities

Terminology: Siebel technical documentation refers to the data that is collected about a business entity as a business component (BC).

Accounts

- Accounts are businesses external to your company
 - Current or potential clients
 - Business partners
 - Competitors
- Some key attributes of Accounts:
 - Accounts have an account team made up of positions
 - Positions are roles within the company
 - Synonyms
 - Avoids duplicate account information for name variations
 - Example: account for General Electric may have synonyms "GE", "G.E.", "GE Inc.", and so on
 - One or more business addresses
 - One or more industries the account belongs to

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Accounts

Reference: The *Applications Administration Guide* is a good introduction to Accounts and other important entities in the Siebel Logical Model.

Contacts

- Contacts are people with whom you do business
- Some key attributes of Contacts:
 - Contacts can be public or marked as personal
 - Public contacts may be visible to multiple users (a Contact team)
 - Personal contacts are only visible to the owner
 - Contacts may be associated with one or more Accounts
 - A many-to-many relationship, so one Account may also have multiple contacts
 - Preferred contact method (email, phone, fax, and so forth)
 - Address, email, phone and fax numbers

Opportunities

- Opportunities are potential revenue-generating events
- Some key attributes of Opportunities:
 - Opportunities are associated with a team of positions
 - Opportunities are associated with an account
 - A probability of completion
 - An estimated revenue and margin
 - An estimated close date (required)
 - A sales stage
 - Examples: Prospecting, Qualified, Selected, Closed/Won
 - A sales channel

Opportunities

Assessment Templates: An application administrator may need to create assessment templates for evaluating opportunities. This is the subject of a later lesson.

Activities

- Activities are specific tasks or events to be completed
 - May be associated with another entity, such as an Account, Contact, or Opportunity
 - Example: an Activity to send a welcome email to a new customer (an Account)
- Some key attributes of activities:
 - Activities are associated with one or more users
 - Activities may be displayed in a user's calendar, home page, and/or activities view
 - Activities have a start date and due date, and may have an alarm associated with them

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Activities

Activities and Activity Templates: Activities and Activity Templates are the subject of a later lesson.

Service Requests

- Are requests from customers or prospects for information or assistance with your products or services
- Some key attributes of Service Requests:
 - Service Requests are associated with a single owner
 - Status and Substatus (required)
 - Summary and description
 - Contact (Last Name and First Name)
 - Account
 - Product
 - Date the service request will be completed (Date Committed)

Other Common Siebel Entities

- A *Household* is a collection of individual consumers who are economically affiliated and who share common purchasing or service interests
 - Members are Contacts associated with the Household
- A *Quote* is an offer to a customer for specific products and services at a specific price
 - Is converted to an Order on completion of a sale
- An *Order* is a commitment on the part of the customer to purchase products and services at a specific price
 - Is categorized as either a Sales or Service Order

Other Common Siebel Entities

Reference: Further information on Households can be found in the *Applications Administration Guide*. Quotes and Orders are detailed in the *Order Management Administration Guide*.

Households: Households are especially useful in a business-to-consumer setting, where purchasing decisions may be made based on family income, number of family members, and so on. This household information may be maintained separately from individual contact data.

Relationships Between Entities

- The Siebel logical model also specifies relationships between entities
- The relationship specifies cardinality:
 - One-to-many (1:M)
 - Example: An Account may have multiple Quotes (another entity)
 - Many-to-one: (M:1)
 - Example: An Opportunity has only one Account, but an Account may have multiple Opportunities
 - Many-to-many (M:M)
 - Example: An Account may belong to multiple Industries (entity) and multiple Accounts may belong to an Industry

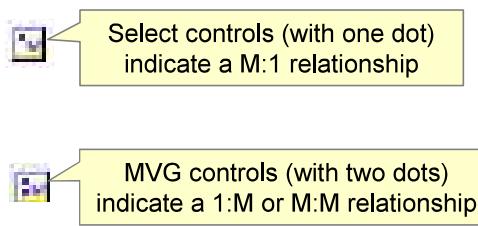
Relationships Between Entities

One-to-One (1:1) Relationships

1:1 relationships are not shown here, because they are rare in the Siebel logical model. If an entity has a 1:1 relationship with another, then the second entity can often be considered as part of the first entity.

Relationships Between Entities: Visual Cues

- The Siebel user interface shows these relationships using:
 - MVG controls (1:M or M:M relationship)
 - Select controls (M:1 relationship)



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Relationships Between Entities: Visual Cues

Other ways of recognizing relationships: You can also use the application to infer relationships.

For example, there is an Accounts-Contacts view, where the Contacts associated with an Account are in a list applet; that is, there can be multiple Contacts per Account. There is also a Contacts-Accounts view, where the Accounts associated with a Contacts are in a list applet, so there can be multiple Accounts per Contact. This shows that Contacts and Accounts are in a M:M relationship in the application.

Images: The images show a Select button as an indicator of a M:1 relationship, and an MVG control as an indicator of a M:M relationship.

Lesson Highlights

- Create and edit records:
 - Edit required and optional fields
 - Use picklists and MVG applets to populate certain fields
- Siebel applications support complex queries on data with:
 - Wildcards, logical operators, and the EXISTS operator
 - The Query Assistant helps end users form complex queries
 - Commonly-executed, saved queries
- Common Siebel business entities include:
 - Accounts: businesses external to your company
 - Contacts: people with whom you do business
 - Opportunities: potential revenue-generating events
 - Activities: specific tasks or events to be completed
 - Service Requests: requests for information or assistance

Practice 2 Overview: Navigating Siebel CRM Applications

This practice covers the following topics:

- Creating, modifying, and deleting records
- Using basic querying skills
- Exploring common Siebel business entities

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Exploring the Siebel Architecture



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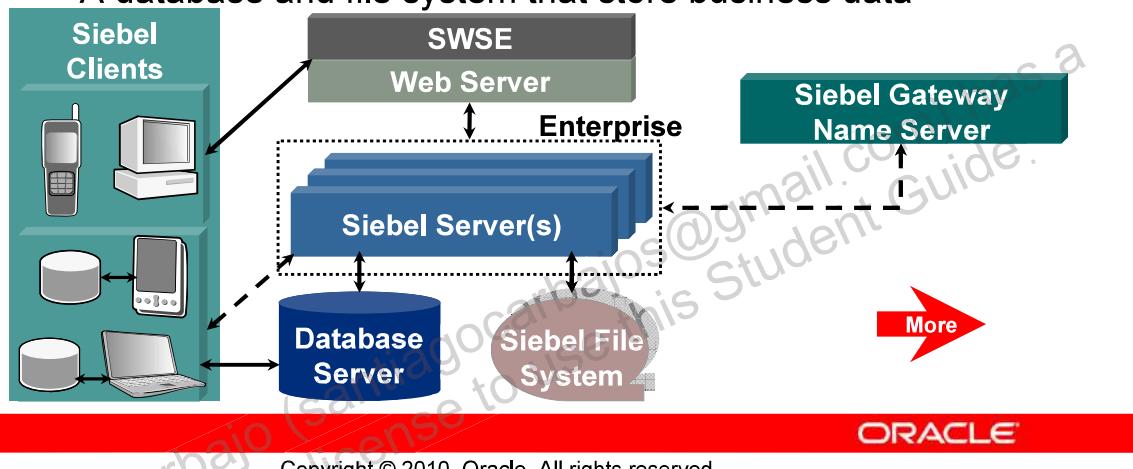
Objectives

After completing this lesson, you should be able to:

- Identify the pieces that make up the Siebel architecture
- Identify the major architectural components and their roles
- Describe how different Siebel client types access data

Siebel Web Architecture Overview

- At a high level, the Siebel architecture consists of:
 - Siebel Web clients that access the business data
 - A Web server that handles interactions with the Web clients
 - Servers that manage the business data and provide batch and interactive services for clients
 - A database and file system that store business data



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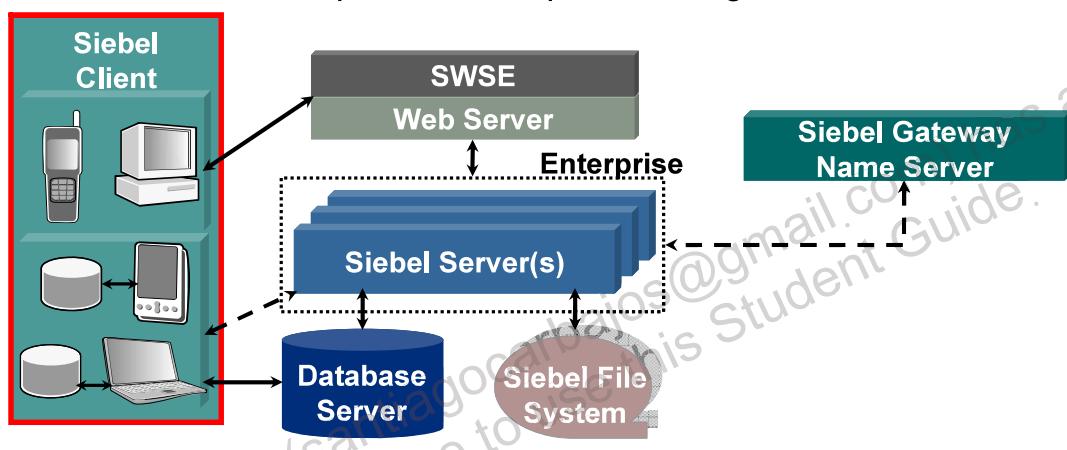
Siebel Web Architecture Overview

Reference: "Siebel Enterprise Server Architecture" in the *Siebel System Administration Guide*.

Diagram: The diagram shows a variety of Siebel clients on the left, including a cellular telephone, desktop, PDA, and laptop. The PDA and laptop have local databases. In the middle is a Siebel Web server with the Siebel Web Server Extension installed, then a set of Siebel Servers labeled an Enterprise, and then a database server next to the Siebel File System. Finally, to the right is the Siebel Gateway Name Server. The cell phone and desktop are shown connecting to the Web server, while the PDA and laptop are shown connecting to the database server, with a dotted line between them and the Siebel Servers. The Siebel Web server is also connecting to the Siebel Servers, which are connecting to the database server, the Siebel File System, and (using a dotted line) to the Siebel Gateway Name Server. Details of this diagram will be discussed over the next few slides, and the diagram will be repeated with different areas highlighted.

Siebel Web Clients

- Display the interactive Siebel application used to manage the Siebel data
- Runs in a variety of environments
 - Web browsers, Wireless Markup Language (WML) devices such as mobile phones, and personal digital assistants



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Siebel Web Clients

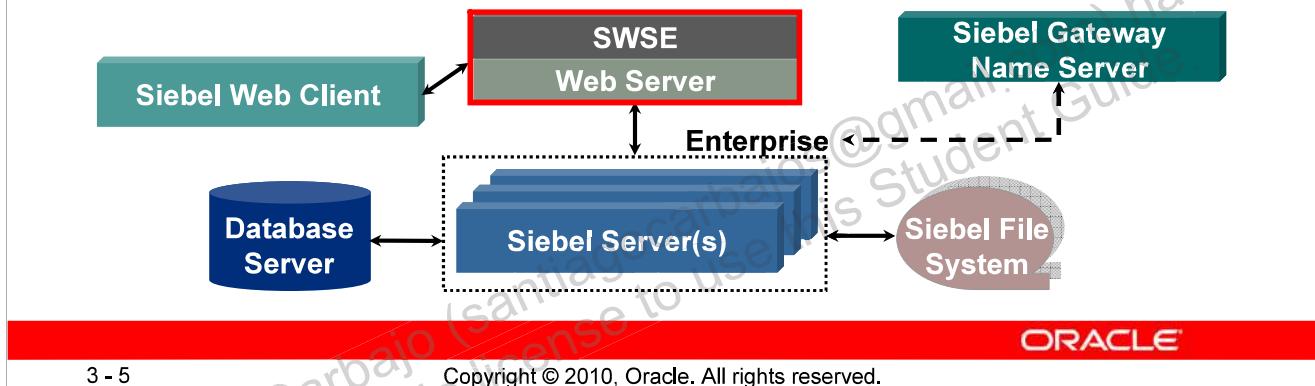
Deploying Siebel Web Clients: You can deploy a mixture of clients, such as the Siebel Mobile Web Client, Siebel Wireless Web Client, and so on, within a single Siebel deployment.

Client Types in this Course: This course will use two client types: The Siebel Web client, that you have been using in your practices, and the Siebel Developer Web client, that you will use starting in the practice for this lesson. You will learn more about the Siebel Developer Web client later in this lesson.

Diagram: The diagram once again shows the Siebel Clients on the left, connecting to the SWSE and Web Server (top middle), Siebel Server(s) (middle), and Database Server (bottom middle, to the left of the Siebel File System). The Siebel Gateway Name Server is to the right, connecting to the Siebel Server(s), which are labeled an Enterprise, and the Siebel File System is just to the right of the Database Server. In this case, the Siebel Client area is highlighted.

Web Server

- Identifies and passes Siebel requests from Siebel Web Clients to the Siebel Servers
- Passes completed HTML application pages back to Siebel Web Clients
- Provides optional load balancing for multi-server installations
 - Supports either built-in or third-party load balancing



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Web Server

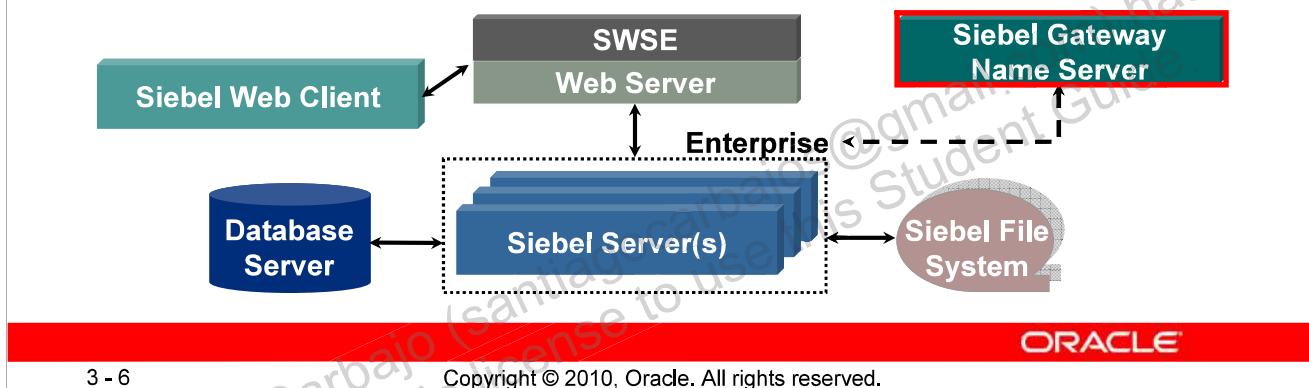
Reference: See *Siebel System Requirements and Supported Platforms* for a list of supported Web servers.

SWSE: The Siebel Web Server Extension (SWSE) is a set of Siebel-specific functionality that allows a standard Web server to process Siebel requests. It must be installed on any Web server that will be supporting a Siebel CRM application.

Diagram: The diagram shows the Siebel Web Client on the left, which connects to the SWSE and Web Server (top middle). The Web Server connects to the Siebel Server(s) (bottom middle), which are labeled an Enterprise. This time, the Database Server is to the left of and connected to the Siebel Servers, and the Siebel File System is to the right of and connected to the Siebel Servers. The Siebel Gateway Name Server is to the upper right, connecting to the Siebel Server(s). The SWSE and Web Server are highlighted.

Siebel Gateway Name Server

- Is a Windows service or UNIX daemon process
- Dynamically registers Siebel Server and component availability
- Stores component definitions and assignments, operational parameters, and connectivity information
 - For example, connect strings to allow querying servers for server and component availability



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Siebel Gateway Name Server

A single Siebel Gateway Name Server can support multiple Siebel Enterprises.

The Siebel Gateway Name Server serves as the dynamic address registry for Siebel Servers and components. At startup, a Siebel Server within the Siebel Enterprise stores its address in the Gateway Name Server's non-persistent address registry.

Siebel Enterprise components query the Gateway Name Server address registry for Siebel Server availability and address information. When a Siebel Server shuts down, this information is cleared from the address registry.

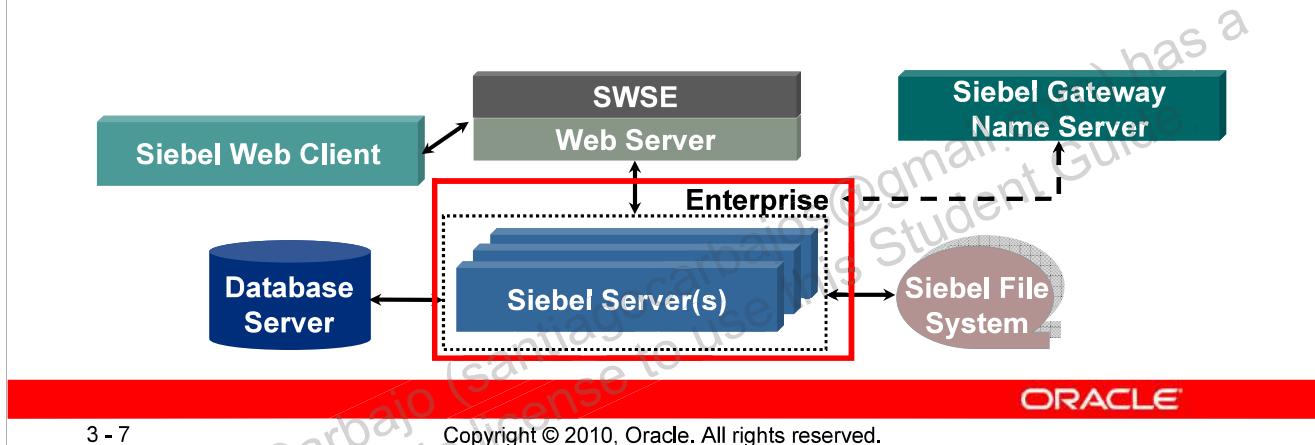
The Gateway Name Server also includes a persistent file (siebns.dat) containing Siebel Server configuration information. As this information changes, such as during the installation or configuration of a Siebel Server, it is written to the configuration file on the Name Server.

It is recommended that the Siebel Gateway Name Server be clustered.

Diagram: The diagram shows the Siebel Web Client on the left, which connects to the SWSE and Web Server (top middle). The Web Server connects to the Siebel Server(s) (bottom middle), which are labeled an Enterprise. The Database Server is to the left of and connected to the Siebel Servers, and the Siebel File System is to the right of and connected to the Siebel Servers. The Siebel Gateway Name Server is to the upper right, connecting to the Siebel Server(s). The Siebel Gateway Name Server is highlighted.

Siebel Enterprise Server

- Is a logical collection of Siebel Servers that support users accessing a single database server and a single file system
 - Logically groups Siebel Servers for common administration through the Siebel Server Manager
- Supports sharing of common configuration information



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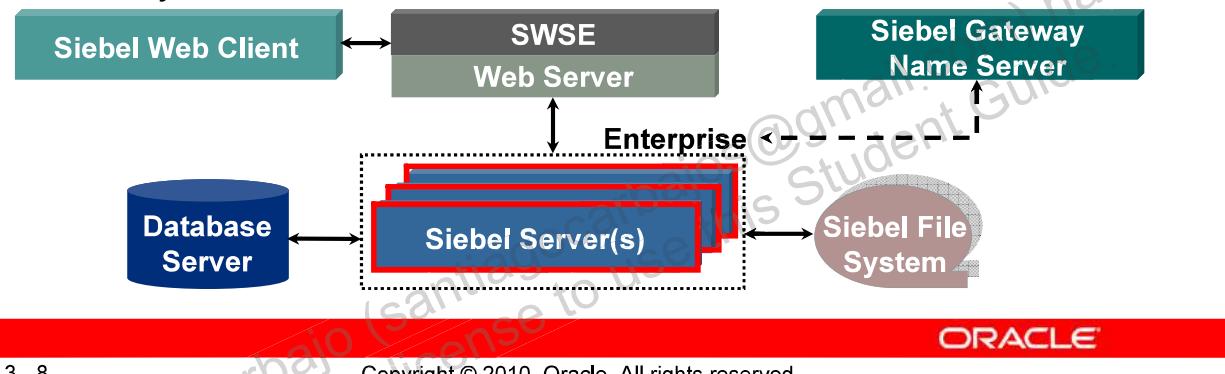
Siebel Enterprise Server.

The Enterprise Server is a logical grouping of Siebel Servers. It does not run as a service or process on a machine. It groups Siebel Servers under a common name. The default name is "Siebel" (which can be changed during installation). There should be one database server per Enterprise Server.

Diagram: The diagram shows the Siebel Web Client on the left, which connects to the SWSE and Web Server (top middle). The Web Server connects to the Siebel Server(s) (bottom middle), which are labeled an Enterprise. The Database Server is to the left of and connected to the Siebel Servers, and the Siebel File System is to the right of and connected to the Siebel Servers. The Siebel Gateway Name Server is to the upper right, connecting to the Siebel Server(s). The Siebel Server(s) are highlighted.

Siebel Servers

- Execute tasks to manage the business data
 - Programs known as server components perform specific functions or jobs for the server
 - For example:
 - Assign service requests to qualified technicians
 - Process client requests
 - Tasks may run interactively, in the background, or as batch jobs



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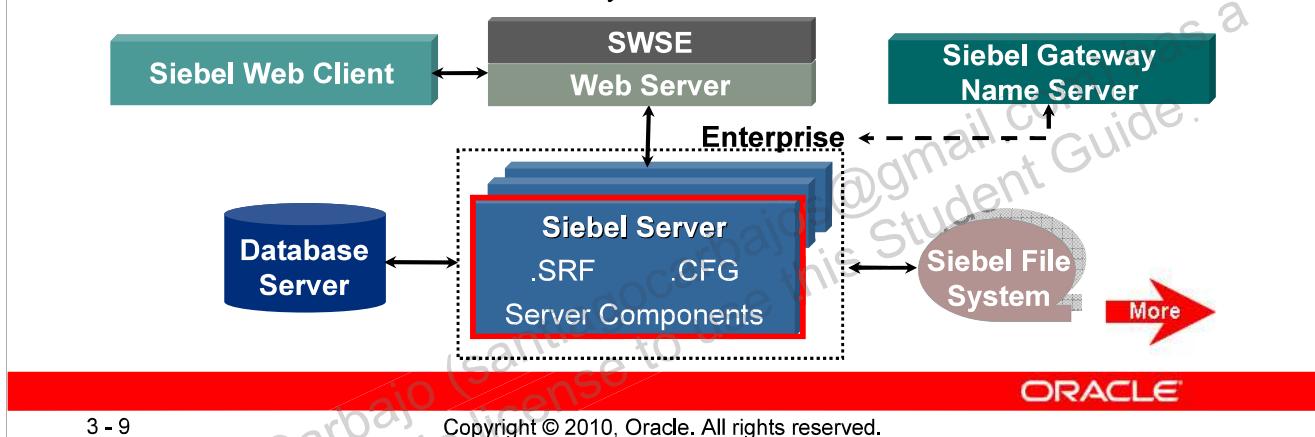
Siebel Servers

The Siebel Server is the middle-tier platform that supports both back-end and interactive processes for every Siebel client. The Siebel Server supports both multiprocess and multithreaded components, and can operate components in background, batch, and interactive modes.

Diagram: The diagram shows the Siebel Web Client on the left, which connects to the SWSE and Web Server (top middle). The Web Server connects to the Siebel Server(s) (bottom middle), which are labeled an Enterprise. The Database Server is to the left of and connected to the Siebel Servers, and the Siebel File System is to the right of and connected to the Siebel Servers. The Siebel Gateway Name Server is to the upper right, connecting to the Siebel Server(s). The individual Siebel Servers are highlighted.

Siebel Server Architecture

- Each Siebel Server includes server components, and may include:
 - A set of Siebel Repository (.SRF) Files
 - A set of Siebel Configuration Files (.CFG)
 - One for each application and language
 - Each Siebel Server also uses configuration parameters stored on the Siebel Gateway Name Server



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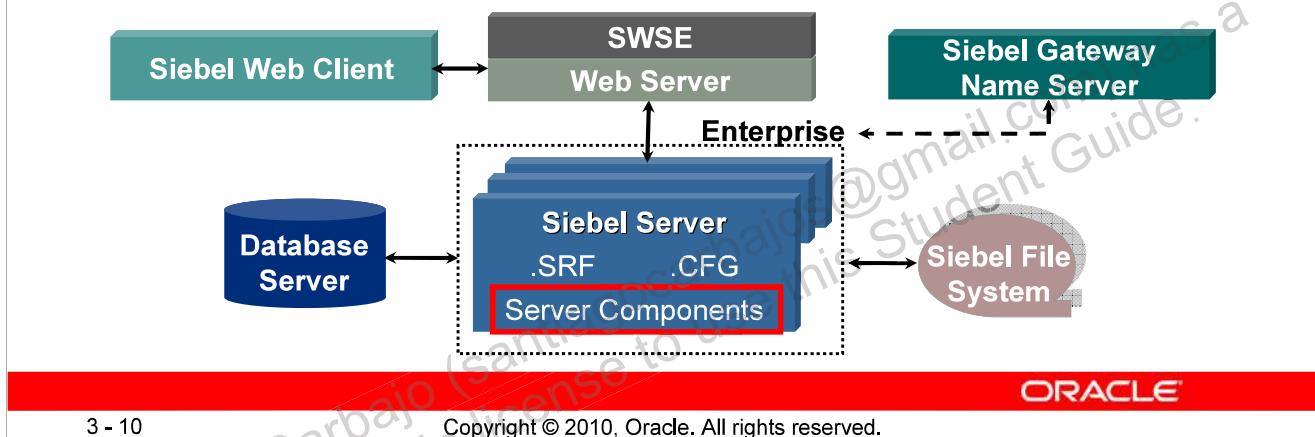
Siebel Server Architecture

Reference: For more information on the Siebel Server architecture and administering Siebel Servers, consult the *Siebel System Administration Guide*, or consider taking Oracle University's Siebel System Administration course.

Diagram: The diagram shows the Siebel Web Client on the left, which connects to the SWSE and Web Server (top middle). The Web Server connects to the Siebel Server(s) (bottom middle), which are labeled an Enterprise. The Database Server is to the left of and connected to the Siebel Servers, and the Siebel File System is to the right of and connected to the Siebel Servers. The Siebel Gateway Name Server is to the upper right, connecting to the Siebel Server(s). A Siebel Server has been expanded to show its .srf file, .cfg file, and server components.

Server Components

- Are programs that execute on a Siebel Server
- Perform a specific function or job
- Examples include:
 - Importing and exporting data
 - Assigning opportunities to sales representatives
 - Processing client requests



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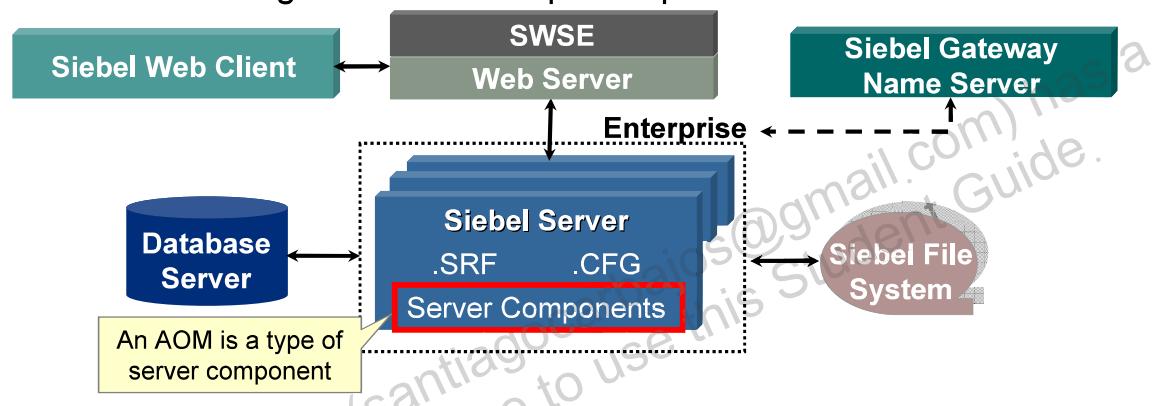
Server Components

Reference: For more information on administering Siebel Server components, consult the *Siebel System Administration Guide*, or consider taking Oracle University's Siebel System Administration course.

Diagram: The diagram shows the Siebel Web Client on the left, which connects to the SWSE and Web Server (top middle). The Web Server connects to the Siebel Server(s) (bottom middle), which are labeled an Enterprise. The Database Server is to the left of and connected to the Siebel Servers, and the Siebel File System is to the right of and connected to the Siebel Servers. The Siebel Gateway Name Server is to the upper right, connecting to the Siebel Server(s). A Siebel Server has been expanded to show its .srf file, .cfg file, and server components. The server components are highlighted.

An Application Object Manager (AOM)

- Is a type of server component that provides the environment in which Siebel user sessions run
 - Users interact with an application-specific AOM; for example, the Siebel Call Center Object Manager (SCCObjMgr)
 - Uses .srf files to build the user interface
 - Uses .cfg files for AOM-specific parameters



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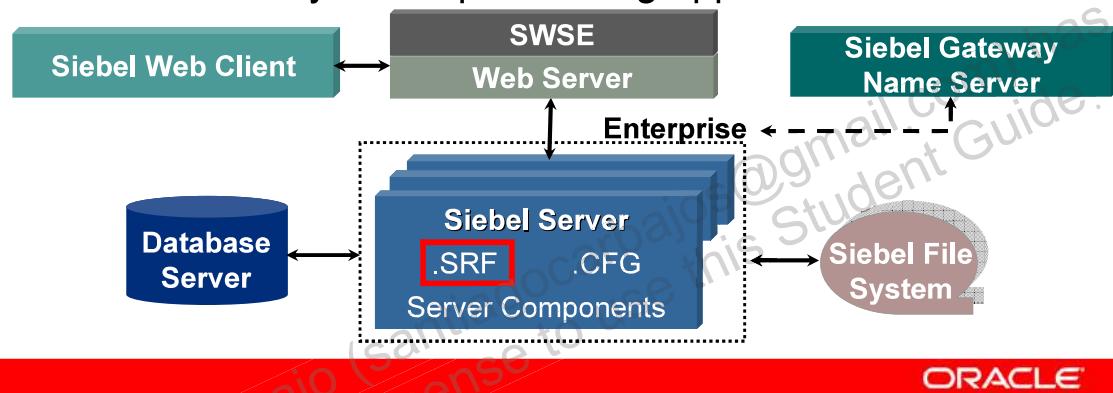
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An Application Object Manager (AOM)

Diagram: The diagram shows the Siebel Web Client on the left, which connects to the SWSE and Web Server (top middle). The Web Server connects to the Siebel Server(s) (bottom middle), which are labeled an Enterprise. The Database Server is to the left of and connected to the Siebel Servers, and the Siebel File System is to the right of and connected to the Siebel Servers. The Siebel Gateway Name Server is to the upper right, connecting to the Siebel Server(s). A Siebel Server has been expanded to show its .srf file, .cfg file, and server components. The server components are highlighted. An application object manager (AOM) is a type of server component.

The Siebel Repository File (.SRF)

- Is a separate, proprietary-format file that defines one or more Siebel applications
 - Defines a Siebel application's business logic and presentation in the UI
 - Each Siebel Server has its own set of .srf files
 - One for each deployed language
- Is modified by developers during application customization



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The Siebel Repository File (.SRF)

The SRF is a separate file containing object definitions that specify application configuration settings:

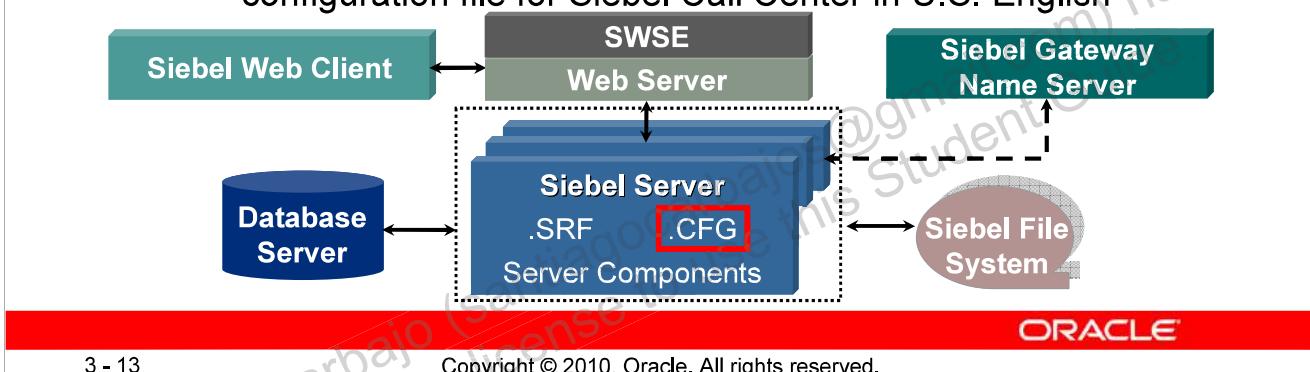
- UI objects specify the data presentation
- Business objects specify the business rules and processes
- Data objects specify the data organization and storage

The SRF is modified by developers using Siebel Tools.

Diagram: The diagram shows the Siebel Web Client on the left, which connects to the SWSE and Web Server (top middle). The Web Server connects to the Siebel Server(s) (bottom middle), which are labeled an Enterprise. The Database Server is to the left of and connected to the Siebel Servers, and the Siebel File System is to the right of and connected to the Siebel Servers. The Siebel Gateway Name Server is to the upper right, connecting to the Siebel Server(s). A Siebel Server has been expanded to show its .srf file, .cfg file, and Server Components. The .srf file is highlighted.

The Siebel Configuration File (.CFG) and Component Parameters

- Specify initialization settings and runtime parameters for the application, for example:
 - Whether the application runs in HI or SI mode
 - Security settings
 - Name of the Siebel Gateway Name Server
- .cfg files are specific to an application and language
 - For example, uagent.cfg in the ENU directory is the configuration file for Siebel Call Center in U.S. English



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The Siebel Configuration File (.CFG) and Component Parameters

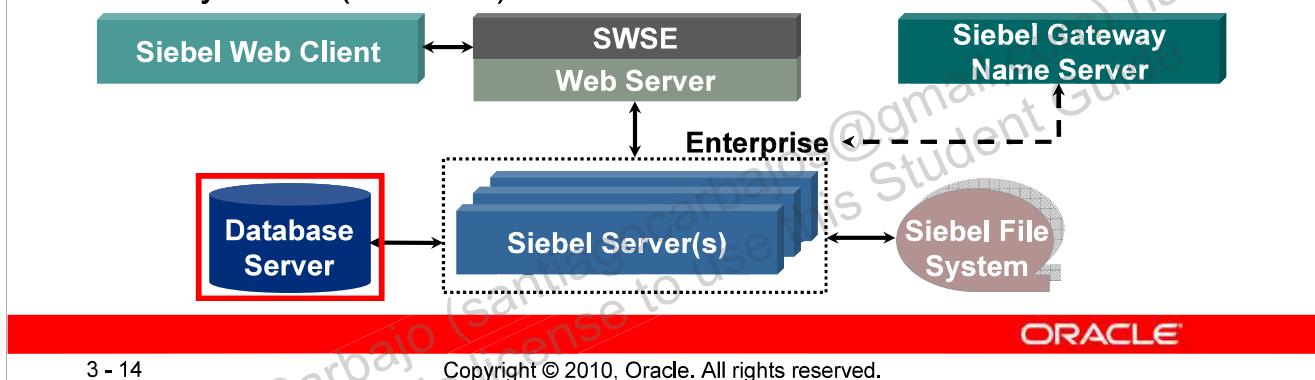
Configuration File: This file is in text format and is modified by a project's configuration team. Examples of server configuration files also include: sales.cfg for Siebel Sales, market.cfg for Siebel Marketing Enterprise, scw.cfg for Siebel Partner Portal, and so forth.

Parameters vs. the Configuration File: Most application parameters are read from the Siebel Gateway Name Server, configured using the Administration - Server Configuration screen, and stored in siebns.dat on the Siebel Gateway Name Server. These parameters are still defined in the .cfg file, but they are only used with the Siebel Developer Web Client or Siebel Mobile Web Client (discussed later in this lesson). These parameters are in clearly-commented sections of the .cfg file, and are labeled "client-only section".

Diagram: The diagram shows the Siebel Web Client on the left, which connects to the SWSE and Web Server (top middle). The Web Server connects to the Siebel Server(s) (bottom middle), which are labeled an Enterprise. The Database Server is to the left of and connected to the Siebel Servers, and the Siebel File System is to the right of and connected to the Siebel Servers. The Siebel Gateway Name Server is to the upper right, connecting to the Siebel Server(s). A Siebel Server has been expanded to show its .srf file, .cfg file, and Server Components. The .cfg file is highlighted.

Database Server

- Stores data used by Siebel applications in a predefined database schema
 - Using a single database for the entire Enterprise provides data consistency for users
 - Data is accessed by server components through a data manager layer
- Supports a variety of relational database management systems (RDBMS)



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Database Server

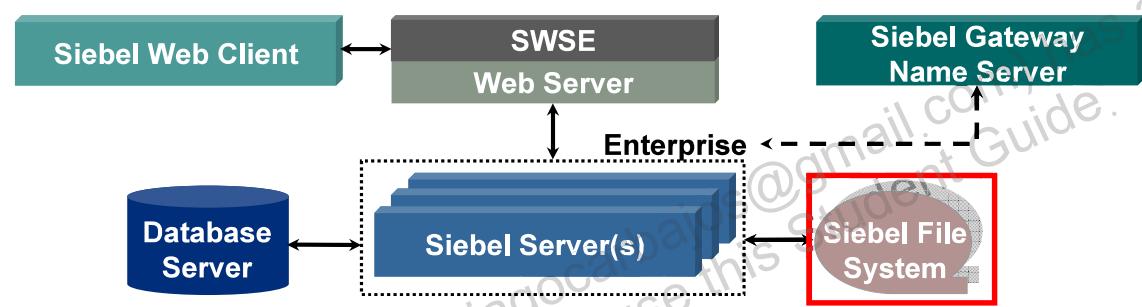
Reference: See the *Siebel System Requirements and Supported Platforms* guide for a complete list of supported RDBMS.

Extensible Schema: The predefined database schema is extensible.

Diagram: The diagram shows the Siebel Web Client on the left, which connects to the SWSE and Web Server (top middle). The Web Server connects to the Siebel Server(s) (bottom middle), which are labeled an Enterprise. The Database Server is to the left of and connected to the Siebel Servers, and the Siebel File System is to the right of and connected to the Siebel Servers. The Siebel Gateway Name Server is to the upper right, connecting to the Siebel Server(s). The Database Server is highlighted.

Siebel File System

- Is one or more shared directories that store files used by Siebel applications
 - Files are compressed in a proprietary format to save space and provide security
 - Examples: Product literature, sales tools, presentations, user profiles



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Siebel File System

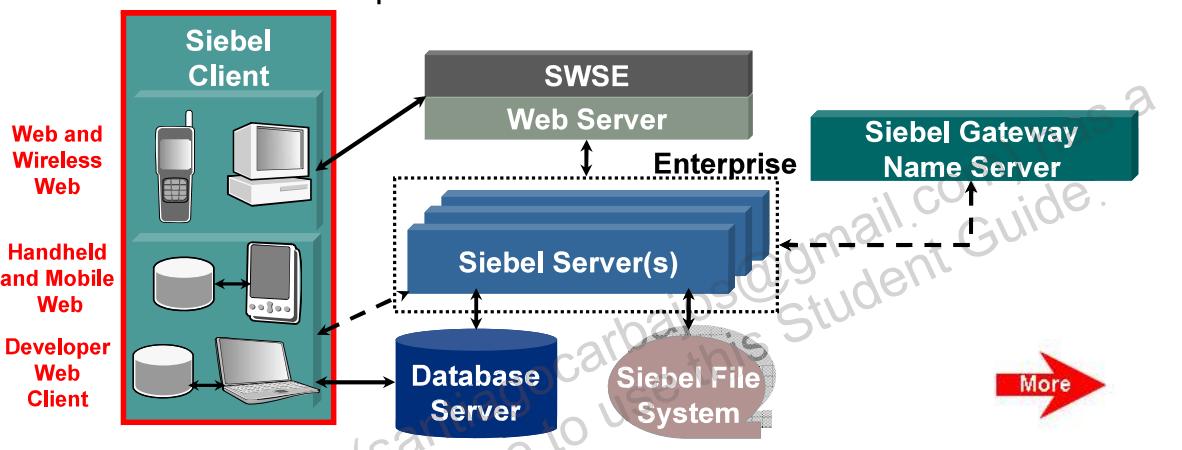
Diagram: The diagram shows the Siebel Web Client on the left, which connects to the SWSE and Web Server (top middle). The Web Server connects to the Siebel Server(s) (bottom middle), which are labeled an Enterprise. The Database Server is to the left of and connected to the Siebel Servers, and the Siebel File System is to the right of and connected to the Siebel Servers. The Siebel Gateway Name Server is to the upper right, connecting to the Siebel Server(s). The Siebel File System is highlighted.

Physical Architecture

- The Siebel Gateway Name Server, Siebel Server, Database Server, and File System are frequently spread across multiple machines
- When on separate machines, the Siebel Server(s) should have a high-speed LAN connection to the Database Server

Client Access Overview

- Access to the Siebel application and Siebel data differs based on the client type:
 - Siebel Web and Wireless Web Clients
 - Siebel Handheld and Mobile Web Clients
 - Siebel Developer Web Client



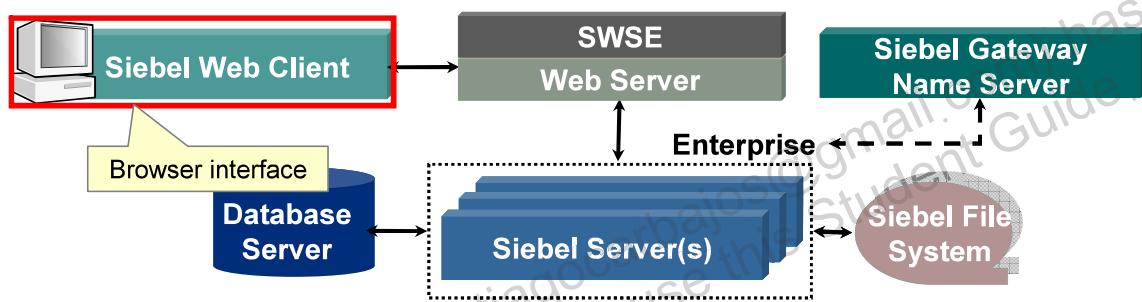
Client Access Overview

Reference: For more information about the types of client available, see the *System Requirements and Supported Platforms* guide. For information about a particular client type, see the appropriate guide; for example, the *Remote and Replication Manager Administration Guide* for the Siebel Remote Web client, or the *Sales Handheld Guide* for using a handheld device with Siebel Sales.

Diagram: The diagram shows a variety of Siebel clients on the left, including a cellular telephone, desktop, PDA, and laptop. The PDA and laptop have local databases. In the middle is a Siebel Web server with the Siebel Web Server Extension installed, then a set of Siebel Servers labeled an Enterprise, and then a database server next to the Siebel File System. Finally, to the right is the Siebel Gateway Name Server. The cell phone and desktop are shown connecting to the Web server, while the PDA and laptop are shown connecting to the database server, with a dotted line between them and the Siebel Servers. The Siebel Web server is also connecting to the Siebel Servers, which are connecting to the database server, the Siebel File System, and (using a dotted line) to the Siebel Gateway Name Server. The cellular telephone is labeled "Web and Wireless Web", the PDA is labeled "Handheld and Mobile Web", and the laptop is labeled "Developer Web Client".

Siebel Web Client

- Accesses the Siebel Enterprise Server through the Web Server using a standard Web browser
- Accesses Siebel data and application functionality through an Application Object Manager (AOM) component, which executes as a server component on one of the Siebel Servers



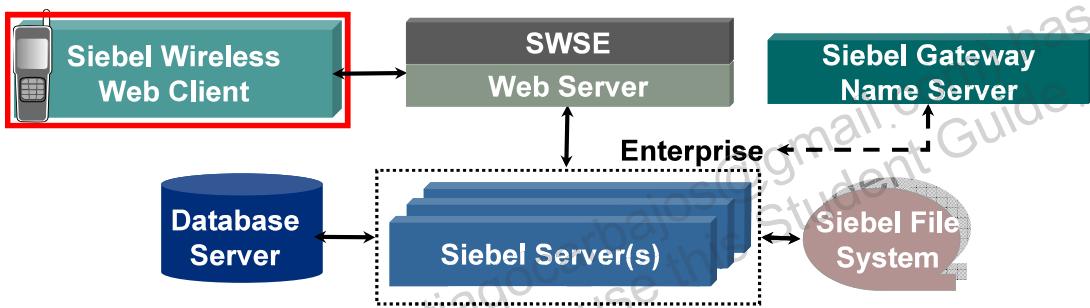
Siebel Web Client

Reference: See the *System Requirements and Supported Platforms* guide for a list of supported Web browsers in both standard interactivity (SI) and high interactivity (HI) modes.

Diagram: The diagram shows the Siebel Web Client on the left, which connects to the SWSE and Web Server (top middle). The Web Server connects to the Siebel Server(s) (bottom middle), which are labeled an Enterprise. The Database Server is to the left of and connected to the Siebel Servers, and the Siebel File System is to the right of and connected to the Siebel Servers. The Siebel Gateway Name Server is to the upper right, connecting to the Siebel Server(s). The Siebel Web Client is highlighted, and a callout indicates that the Siebel Web Client uses a standard Web browser as its interface.

Siebel Wireless Web Client

- Connects to a Web server connected to a Web server with SWSE installed
 - Siebel Wireless supports Wireless Application Protocol (WAP) servers, if used
- Connects to a database server through the AOM
 - Results are transformed and returned as WML or HTML pages



Siebel Wireless Web Client

Reference: The *Siebel Wireless Administration Guide*.

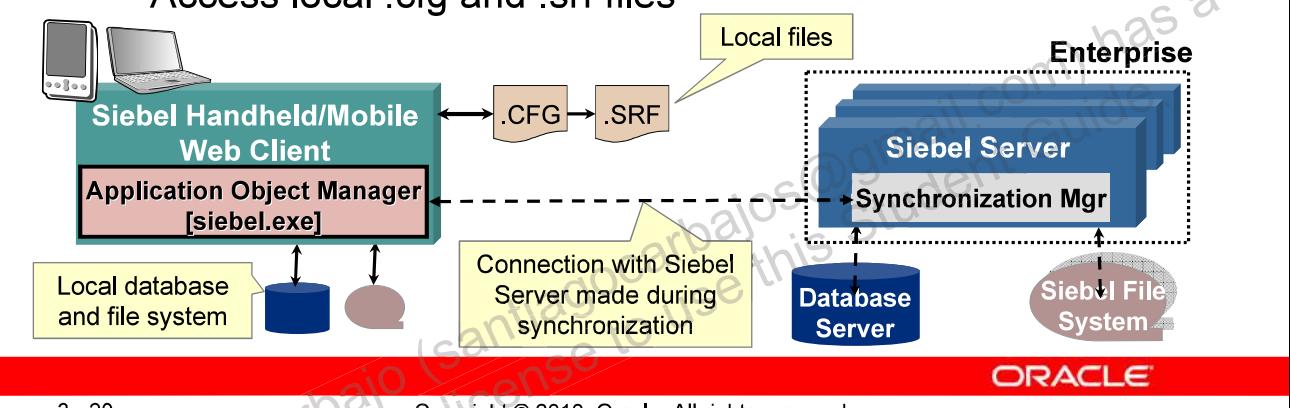
WAP Server: This is an extension to a Web server that supports wireless Web access using WML. Most newer wireless devices use HTML instead of WML, and do not require a WAP server.

WML: Wireless Markup Language – a compact HTML-like language for creating web pages for bandwidth-constrained devices, such as older mobile phones.

Diagram: The diagram shows the Siebel Wireless Web Client on the left, which connects to the SWSE and Web Server (top middle). The Web Server connects to the Siebel Server(s) (bottom middle), which are labeled an Enterprise. The Database Server is to the left of and connected to the Siebel Servers, and the Siebel File System is to the right of and connected to the Siebel Servers. The Siebel Gateway Name Server is to the upper right, connecting to the Siebel Server(s). The Siebel Wireless Web Client is highlighted.

Siebel Handheld and Mobile Web Clients

- Use a locally installed executable (siebel.exe) to support disconnected application use
 - The local AOM runs as part of this executable
- Access a local database and local Siebel File System while disconnected
 - Connect to a designated Siebel Server for synchronization
- Access local .cfg and .srf files



Siebel Handheld and Mobile Web Clients

Synchronization Manager: The Synchronization Manager is a server component that runs on a Siebel Server and provides support for synchronizing local databases and filesystems with the Siebel Enterprise's database and file system.

Disconnected Processing: When Handheld and Mobile Web Clients are disconnected from the Siebel Server, processing is provided by a local Object Manager, Data Manager, and Siebel Web Engine. These run as executables on the local machine.

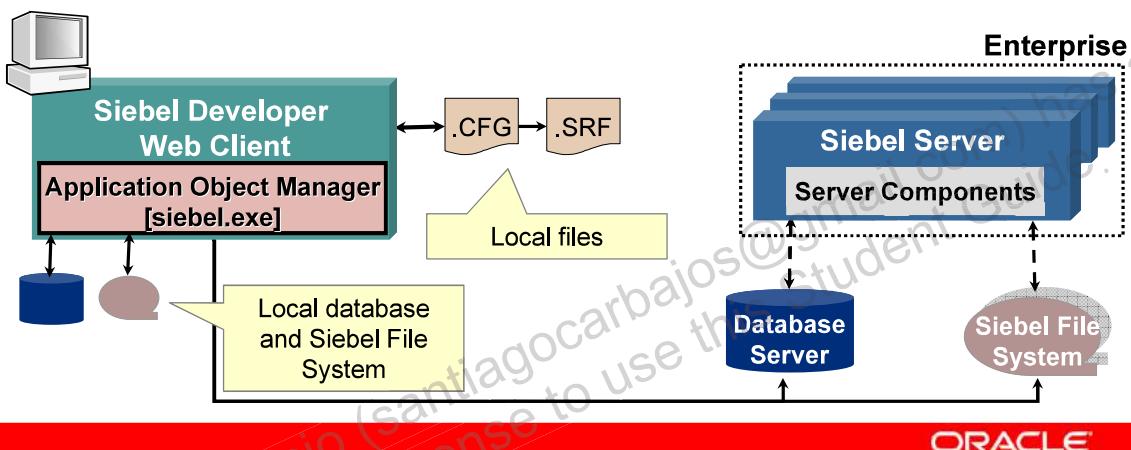
Database Connection: A local Siebel database and File System are installed on each client. Local applications access the client's local database.

Siebel Handheld and Mobile Client User Interfaces: The UI for these clients appears in the user's Web browser, as with other client types. The difference between the Handheld and Mobile Web Clients and the other client types is the local executable, files and database.

Diagram: On the left, the Siebel Handheld/Mobile Web client is shown, with its own local Application Object Manager, database, file system, .cfg files, and .srf file. The executable that runs is siebel.exe, and the Application Object Manager runs within this executable. A dotted line connects the Siebel Handheld/Mobile Web Client to the Siebel Enterprise on the right; in particular, it connects to a Synchronization Manager server component running on one of the Siebel Servers in the Siebel Enterprise. The Siebel Enterprise has its own database and file system. The dotted line is labeled, "Connection with Siebel Server made during synchronization", and the local files are labeled, "Local files".

Siebel Developer Web Client

- Uses a locally installed executable (siebel.exe) to support dedicated access to the Siebel Enterprise's database
 - No requirement for a Web Server or SWSE
- Supports connection to a local database and Siebel File System for development



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Siebel Developer Web Client

Using the Developer Web Client for Application Administration: On occasion, you may need to use the Siebel Developer Web client to perform application administration; in particular, when the Siebel Server is not running. You will use the Siebel Developer Web client in this course, to familiarize yourself with its similarities to and differences from the Siebel Web client.

siebel.exe: Both the Siebel Mobile Web client and Siebel Developer Web client use the same siebel.exe executable. The difference is that the local configuration file for the Siebel Developer Web client includes connection information for how to connect directly to the Siebel Enterprise's database.

Diagram: On the left, the Siebel Developer Web client is shown, with its own local Application Object Manager, database, file system, .cfg files, and .srf file. The executable that runs is siebel.exe, and the Application Object Manager runs within this executable. The Siebel Developer Web client connects directly to the Siebel Enterprise's database and Siebel File System, rather than going through server components. This allows administrators to work with Siebel data even when the Siebel Server is shut down.

Lesson Highlights

- Major components of the Siebel Web architecture are:
 - The Siebel Web Client, which displays the Siebel application in a standard Web browser
 - The Siebel Web Server, which is a Web server with Siebel extensions to support Siebel applications
 - The Siebel Gateway Name Server, which stores parameters and connection information for Siebel Servers
 - The Siebel Enterprise, which is a logical collection of Siebel Servers
 - One or more Siebel Servers, each of which is a set of processes that manage processing for all Siebel clients
- Different Siebel client types access Siebel data differently
 - The Siebel Developer Web client, Mobile Web client, and Handheld client use a local database when disconnected

Practice 3 Overview: Exploring the Siebel CRM Architecture

This practice covers the following topics:

- Exploring the Siebel CRM architecture
- Using the Siebel Web client to access Siebel Call Center
- Using the Siebel Developer Web client to access Siebel Call Center

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Understanding Object Definitions



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Objectives

After completing this lesson, you should be able to:

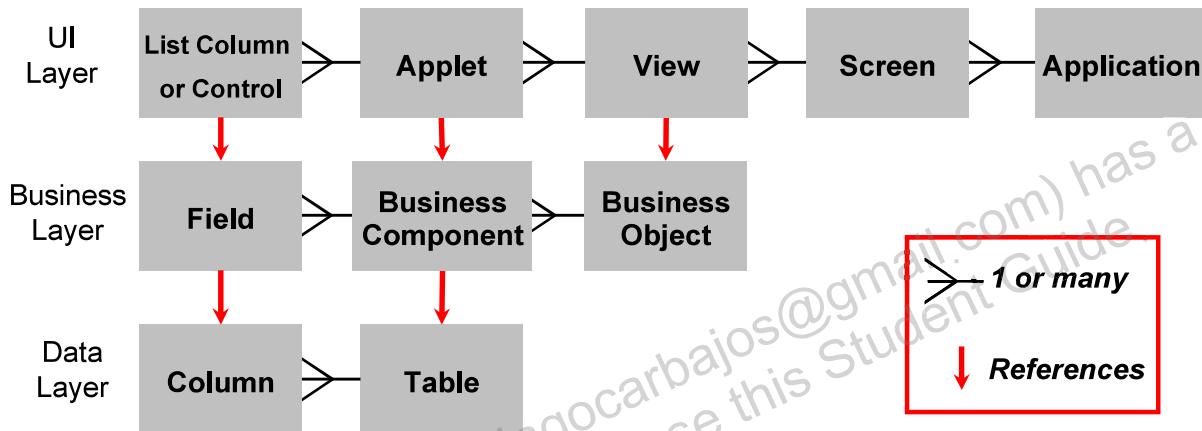
- Identify the elements that compose a Siebel application
- Describe the major types of object definitions
- Describe the relationships between them
- Use About View to determine the user interface (UI) and business layer objects that appear in a Siebel application

Review: Siebel Applications

- Are pre-built software applications
 - They are built using a common data model
 - They use a common execution engine
- Are customized by configurators who modify object definitions using Siebel Tools
 - Object definitions are compiled into a repository (.srf) file
 - The .srf file is then used by the executable to render the application at run-time
- As an application administrator, you must be familiar with the object model in order to effectively:
 - Administer the application
 - Communicate with developers, technical support, or other administrators

Object Definitions

- Provide the foundation for application behavior
- Are grouped into three layers with different purposes
- Refer to definitions in the next lower layer



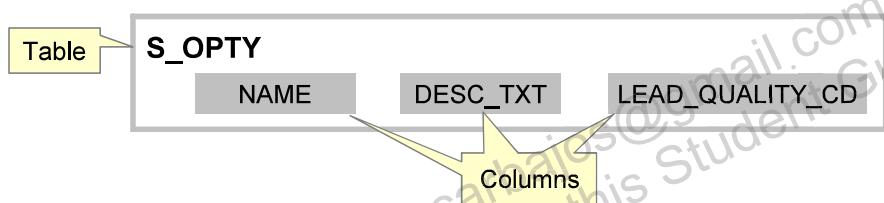
Object Definitions

Reference: For more information on object types, object definitions, and the Siebel object architecture, see *Configuring Siebel Business Applications*, or consider Oracle University's *Siebel Tools* course.

Diagram: The diagram shows the three layers of the Siebel Object Model: The UI Layer, Business Layer, and Data Layer. Within the UI Layer, a List Column or Control element may reference a Field in the Business Layer, which in turn may reference a Column in the Data Layer. There are one or more List Columns or Controls in an Applet in the UI Layer, which references a Business Component containing one or more Fields in the Business Layer, which references a Table containing one or more Columns in the Data Layer. There are one or more Applets in a View in the UI Layer, which references a Business Object containing one or more Business Components in the Business Layer. The Business Object does not reference an object type in the Data Layer. There are one or more Views in a Screen in the UI Layer, and one or more Screens in an Application in the UI Layer. The remainder of the lesson provides details on all of these object types.

The Data Layer

- Consists of object definitions that:
 - Specify the logical structure of the data storage
 - Provide a database-implementation-independent representation of the underlying physical relational database
- Contains two principal object types:
 - Tables
 - Columns



The Data Layer

Diagram: The diagram shows the S_OPTY table, containing the NAME, DESC_TXT, and LEAD_QUALITY_CD columns.

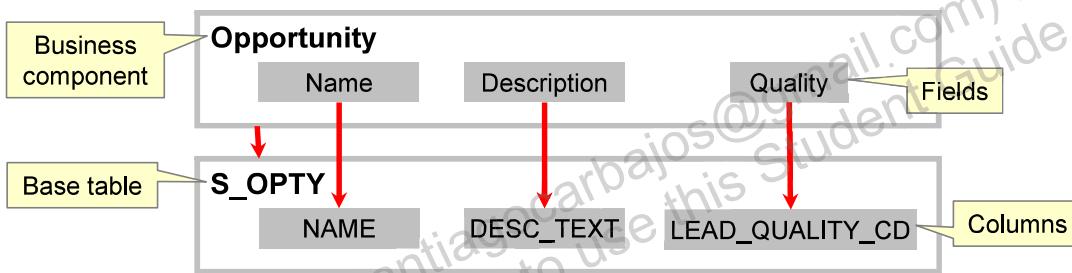
The Business Layer

- Consists of object definitions that specify the business logic for the application
- Contains two principal object types:
 - Business Components
 - Business Objects



A Business Component

- Contains data for one fundamental business entity in the enterprise
 - Examples include: Service Request, Contact, and Account
- Refers to a base table
- Consists of multiple fields that hold business component data
 - Many fields within the business component refer to columns in the base table

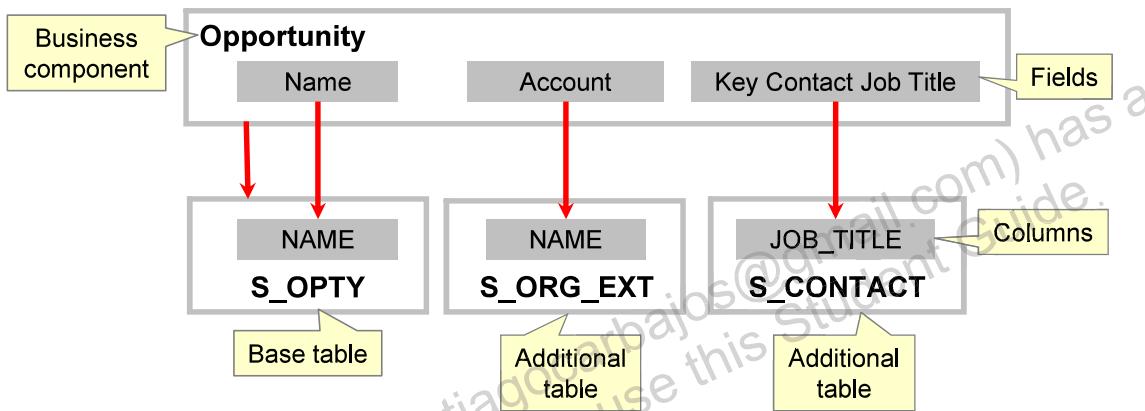


A Business Component

Diagram: The diagram shows the Opportunity business component and three of its fields: Name, Description, and Quality. All three fields refer to columns in the S_OPTY base table. Name refers to the NAME column, Description refers to the DESC_TEXT column, and Quality refers to the LEAD_QUALITY_CD column.

A Business Component

- Can include data from additional related tables
 - Some fields map to columns in these related tables
- Represents a logical grouping of data from one or more tables



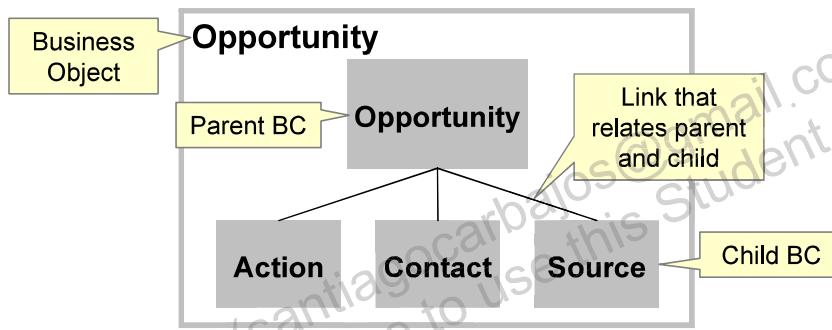
A Business Component

A business component can be thought of as a virtual database table spanning multiple real tables. It organizes the data in the way the developer chooses to display the data, rather than by how it is organized for effective data storage.

Diagram: The diagram shows the Opportunity business component and three of its fields: Name, Account, and Key Contact Job Title. The Name field maps to the NAME column of the S_OPTY table, which is the base table for the Opportunity business component. The Account field maps to the NAME column of the S_ORG_EXT table, which is an additional table. The Key Contact Job Title maps to the JOB_TITLE column of the S_CONTACT table, which is another additional table.

A Business Object

- Is a collection of related business components (BCs) that represent a major area of the business
- Includes:
 - A parent business component
 - One or more child or related business components
- Is associated with links that specify parent/child/grandchild relationships among the business components



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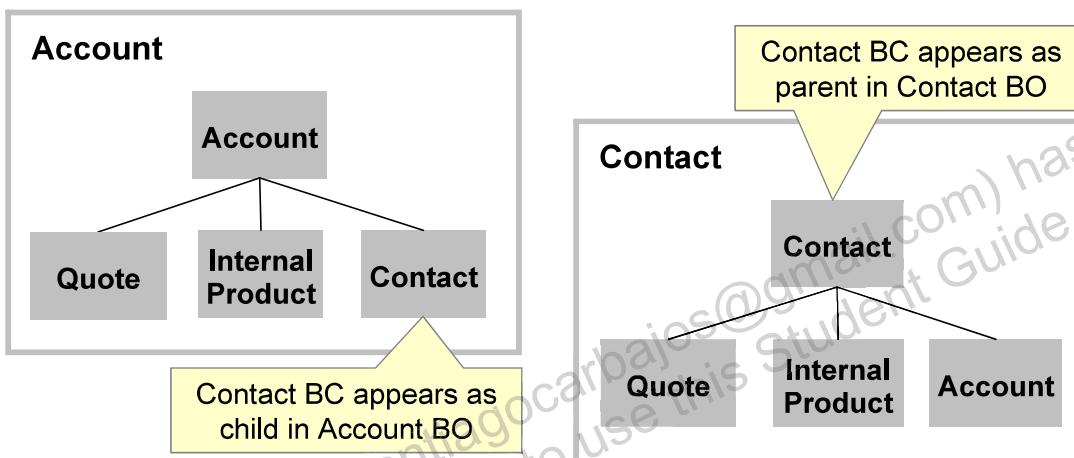
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A Business Object

Diagram: The diagram shows the Opportunity business object, containing the Opportunity, Action, Contact, and Source business components. The Opportunity business component is the parent; the Action, Contact, and Source business components are children, and are related to the parent business component using Links.

Business Component Reuse

- A business component can be:
 - Defined once in terms of a logical collection of columns from one or more tables
 - Then used in many different business object contexts



Business Component Reuse

Diagram: The diagram shows the Account business object, with the Account business component as the parent, and the Quote, Internal Product, and Contact business components as children. To the right is the Contact business object, where now the Contact business component is the parent, while Quote, Internal Product, and Account are children.

The User Interface (UI) Layer

- Consists of object definitions that specify the content of the user interface
- Contains four principal object types:
 - Applets
 - Views
 - Screens
 - Applications



An Applet

- Is a portion of a Siebel application window, such as a list or form
- Refers to one business component whose data can be viewed and edited through the list or form

The screenshot shows a Siebel application window titled "Troy Carlson". The window has a toolbar with icons for Home, Accounts, Contacts, Opportunities, Quotes, Sales Orders, and Service. Below the toolbar is a navigation bar with links for Contacts Home, Contacts List, Consumers List, Personal Contacts List, Charts, Manager's Explorer, and Administration. The main area displays a contact record for "Troy Carlson" with the following fields:

- Last Name: * Carlson
- First Name: * Troy
- Middle Initial: A.
- Mr/Ms: Mr.
- Job Title: Customer Service Admin
- Work Phone #: (301) 380-4532
- Work Fax #: (301) 380-1331
- Mobile Phone #: (301) 381-4542
- Home Phone #:
- Email: tcarlson@marriott.com
- Account Name: Marriott International HQ
- Account Address: 10400 Fernwood Road
- Address Line 2:
- City: Bethesda
- Zip Code: 20817
- State: MD
- Country: USA



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An Applet

Screenshot and Diagram: The screenshot shows the Contact Form Applet, and the diagram indicates that this applet refers to the Contact business component. Example fields such as First Name, Job Title, and Email Address are shown within the Contact business component. These fields are also visible in the screenshot of the applet.

The Applet Object Definition

- Contains multiple "list column" or "control" object definitions
 - May map to a field in the referenced business component
 - Specify how the data for the mapped field is displayed in the list or form

The screenshot shows the Siebel Contact Form Applet for Troy Carlson. The top navigation bar includes Home, Accounts, Contacts, Opportunities, Quotes, Sales Orders, and Service. Below the navigation is a toolbar with New, Inserted, Query, and Control buttons. The main area displays contact information: Last Name (Carlson), First Name (Troy), Middle Initial (A), Mr/Ms (Mr.), Job Title (Customer Service Admin), Work Phone # (301) 380-4532, Work Fax # (301) 380-1331, Mobile Phone # (301) 381-4542, Home Phone #, Email (tcarlson@marriott.com), Account Name (Marriott International HQ), Account Address (10400 Fernwood Road), Address Line 2, City (Bethesda), State (MD), Zip Code (20817), and Country (USA). A red bracket labeled 'Control' is positioned over the Last Name field. Red arrows point from the Last Name field to the First Name control, the Job Title control, and the Email Address control. A yellow box labeled 'Business component field' points to the Last Name field.

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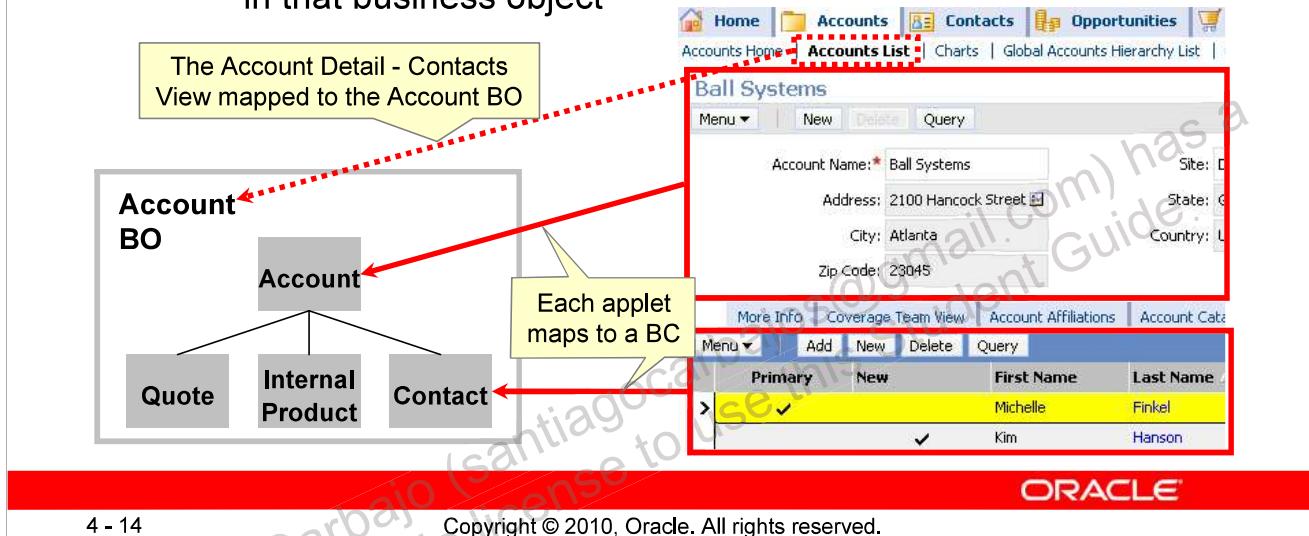
The Applet Object Definition

List Columns or Controls: List Columns are used for list applets. Controls are used for form applets.

Screenshot and Diagram: The screenshot once again shows the Contact Form Applet, this time with the Last Name field labeled as a control. The First Name control is mapped to the First Name field in the Contact business component, the Job Title control is linked to the Job Title field, and the Email control is linked to the Email Address field.

A View

- Is a set of applets displayed according to a "View Web Template"
- Refers to one business object
 - Each applet in the view must refer to a business component in that business object



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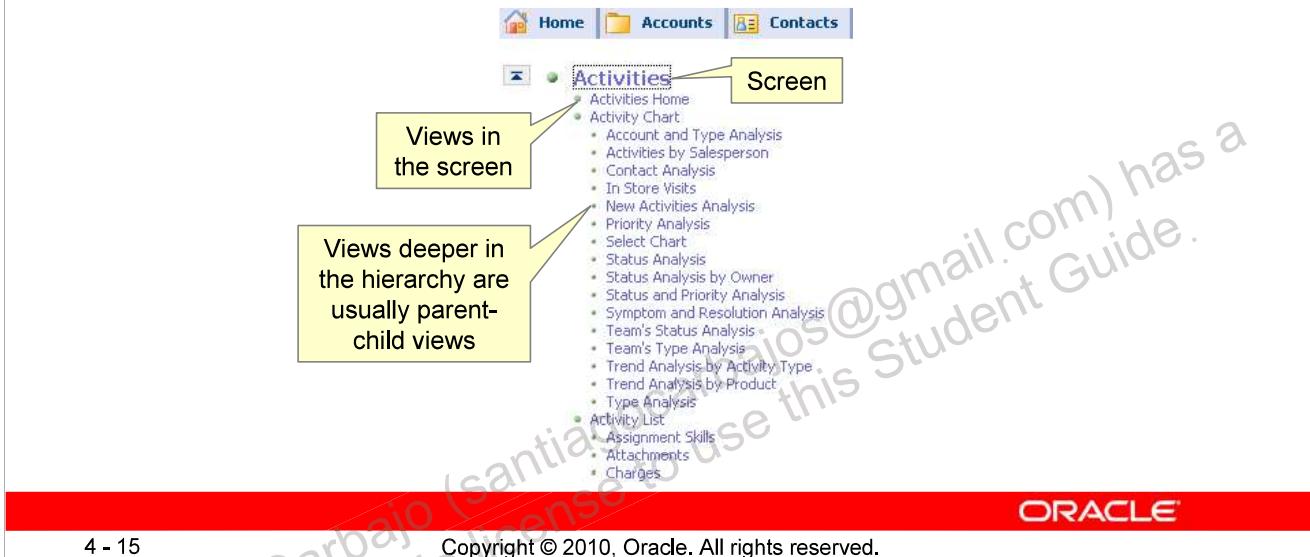
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A View

Screenshot and Diagram: The screenshot shows the Account Detail - Contacts View. This view refers to the Account Business Object. The top applet, that shows Account details, refers to the Account Business Component. The bottom applet, that shows Contacts associated with an Account, refers to the Contact Business Component, a child of the Account Business Component in the Account Business Object.

A Screen

- Is a set of View object definitions that usually refer to the same business object
 - Administration screens are an exception
- Is associated with a major functional area of the enterprise

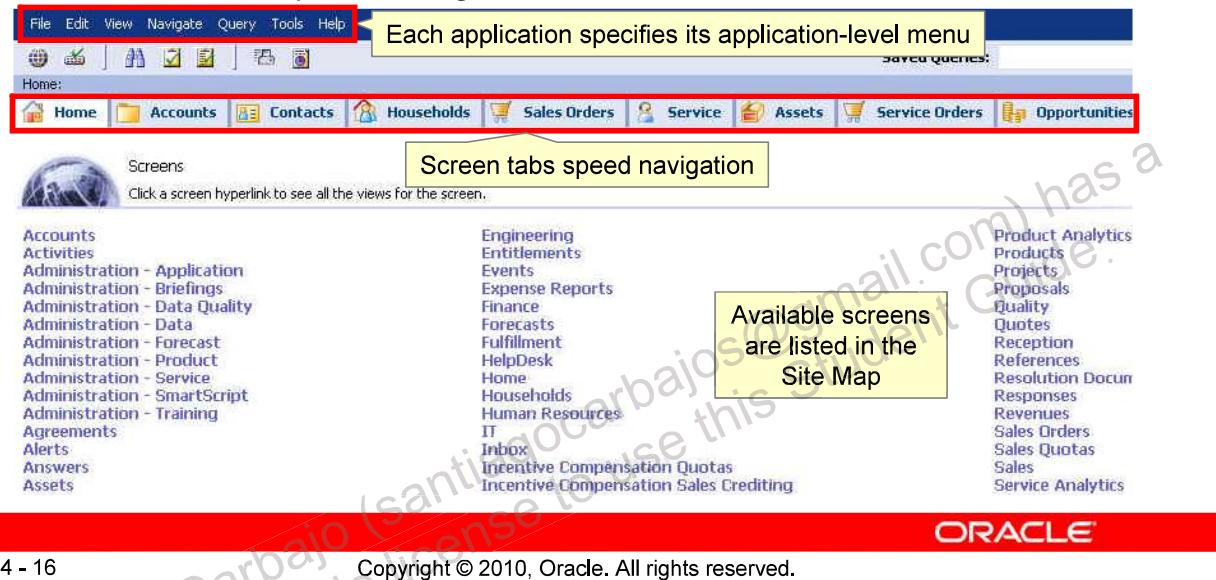


A Screen

Screenshot: The screenshot shows the Activities screen selected from the Site Map, so you can see many of the views associated with the Activities screen. Top-level views are frequently list/detail views (a list applet at the top, and a form applet with more details on the bottom), while views deeper in the hierarchy are frequently parent-child views. (A list or form applet for the parent record(s) on top, and a list or form applet for the child record(s) on the bottom).

An Application

- Is a set of Screen object definitions, as well as an application-level menu
 - An application also specifies an associated set of screen tabs to speed navigation



An Application

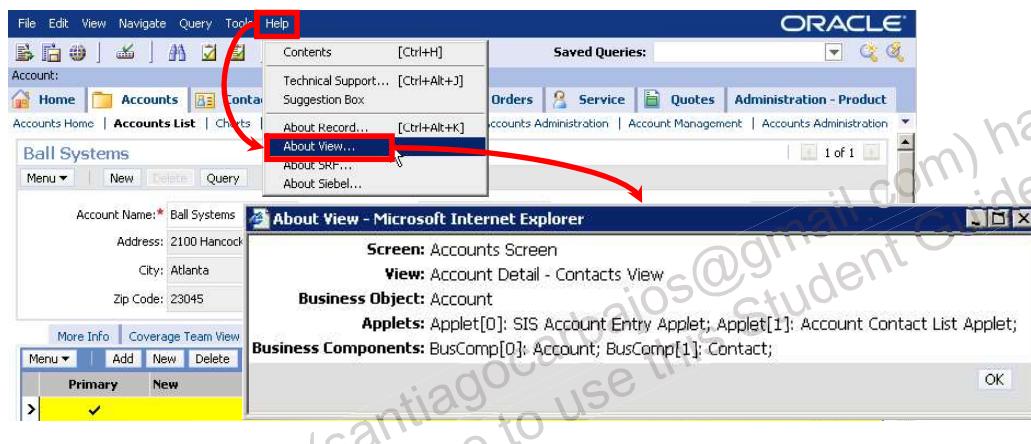
Screenshot: The screenshot shows the Site Map. The application-level menu is highlighted. Each application specifies its application-level menu. The screen tabs are highlighted, these tabs speed navigation. Available screens are listed in the Site Map.

Physical UI Files

- Help construct the Siebel application UI in the users' browsers
- Consist of:
 - Siebel Web template files
 - Cascading style sheets
 - Image files
- Are provided as part of a standard Siebel application
- Can be customized using non-Siebel tools
 - HTML editors
 - Graphics programs

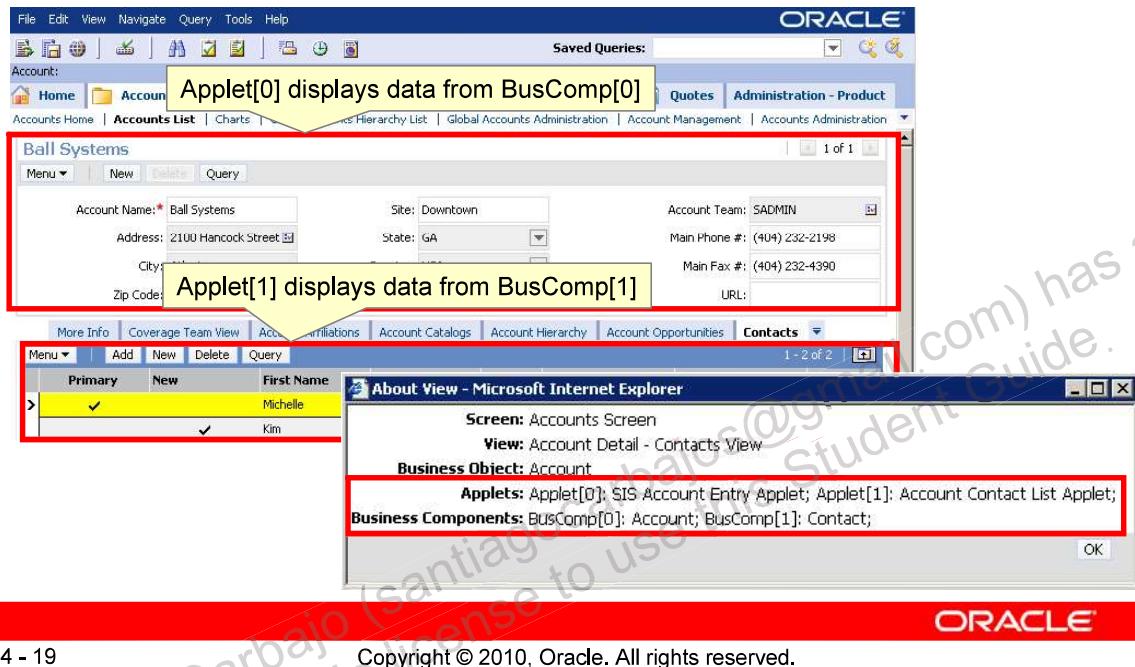
Using About View

- In the Siebel client, select Help > About View to show:
 - Current object definitions and their relationships
 - UI layer objects: The Screen, View, and Applets
 - Business layer objects: The Business Object and Business Components



Using About View

- Applets and Business Components are listed in the order they appear in the view



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Using About View

Screenshot: The screenshot shows how to use About View to determine the Applet and Business Component. The first Applet listed, Applet[0], is the SIS Account Entry Applet. This Applet displays data from BusComp[0], which is the Account Business Component. The second Applet, Applet[1], is the Account Contact List Applet, which lists data from BusComp[1], the Contact Business Component.

Lesson Highlights

- The Siebel repository file contains object definitions that specify presentation of data, business logic, and data storage
- Object definitions for a Siebel application fall into three layers:
 - The data layer abstracts data base objects such as Tables and Columns
 - The business layer represents business logic using Business Components and Business Objects
 - The UI (presentation) layer presents data in Applets, Views, Screens, and Applications using UI files, such as Siebel Web template files, image files, and cascading style sheets
- Use About View to identify UI and business layer objects visible in a Siebel application

Practice 4 Overview: Exploring Siebel Object Definitions

This practice covers the following topics:

- Using About View to determine object definitions and their relationships

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Security and Access Control

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Objectives

After completing this lesson, you should be able to:

- Identify the major security mechanisms of a Siebel application
- Describe authentication methods
- Describe how access is controlled within Siebel applications

Securing a Siebel Application

- There are many security concerns when implementing an enterprise application:
 - Authenticate users before they can access sensitive areas of the application
 - For example, anonymous users should be able to browse products, but should not be able to see all available price lists
 - Referred to as "Authentication"
 - Ensure that users only have access to the views and data they require to do their jobs, for example:
 - Most users should not have access to administrative views
 - One user should not be able to see another user's personal Contacts
 - Referred to as "Access Control"
 - Ensure physical security of the application

More 

Physical Security

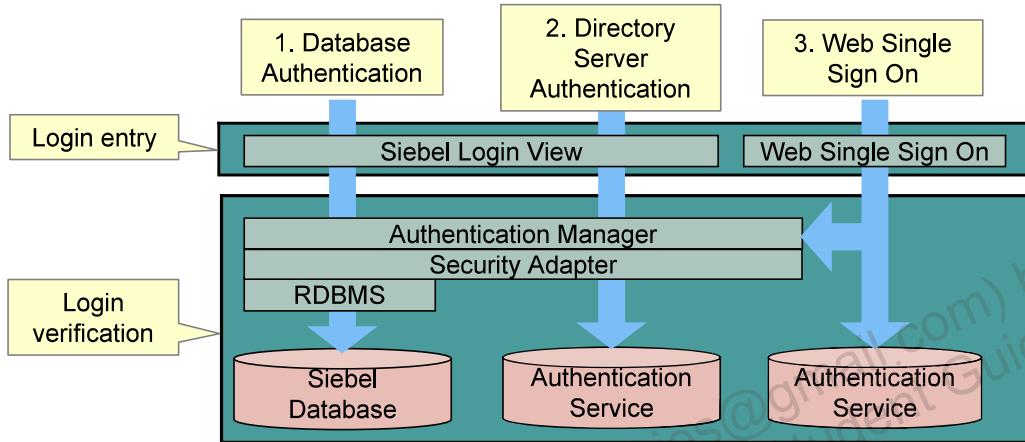
- The Information Technology (IT) team is usually responsible for ensuring physical security:
 - Encrypt communications to avoid monitoring
 - Protect user sessions against "hijacking": The transfer of a user session to a different computer
 - Support the use of corporate and personal firewalls
 - Protect the physical network infrastructure
- Application administrators are rarely involved in implementing physical security
 - Beyond the scope of this course
 - For more information, see the *Security Guide* and your platform-specific *Installation Guide*

Authentication

- Is the process of verifying a user's identity
- Verifies the identity of users before they gain access to most of the screens and views of a Siebel application
- Consists of collecting a set of user credentials such as user ID and password and comparing them to pre-stored values
- Application administrators are usually responsible for administering users, so you must be aware of the authentication method being used by your application

Siebel Authentication Methods

- Siebel applications support three methods for verifying users who are trying to access the application



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Siebel Authentication Methods

Reference: The *Siebel Security Guide*.

Diagram: There are three authentication methods:

- **Database Authentication** uses the Siebel Login View to collect user credentials. These user credentials are passed to a Siebel Authentication Manager running on a Siebel Server, that user a Security Adapter to connect to a relational database management system (RDBMS) to compare the user credentials to credentials stored in the database.
- **Directory Server Authentication** also uses the Siebel Login View to collect user credentials and pass them to the Authentication Manager. However, the Authentication Manager uses a Security Adapter to connect to an Authentication Service instead of an RDBMS.
- **Web Single Sign-On** does not use the Siebel Login View, but instead uses a Web Single Sign On service to collect user credentials and authenticate them using an Authentication Service. Once a user is authenticated, a "security token" is passed to the Authentication Manager to inform it that the user has been authenticated.

Administering Authentication Methods

- As an application administrator, administering user logins differs, depending on the authentication method:
 - Database Authentication:
 - You must provide the Database Administrator (DBA) with a user ID and password for each user to be added, deleted, or modified
 - The DBA modifies the user entry and password in the RDBMS
 - Directory Server Authentication:
 - You modify user IDs and passwords directly using the Siebel application
 - Modifications performed in the Siebel application are synchronized with the directory server
 - Web Single Sign On:
 - You must provide the Directory Server Administrator with a user ID and password for each user to be added, deleted, or modified

Comparison of Authentication Methods

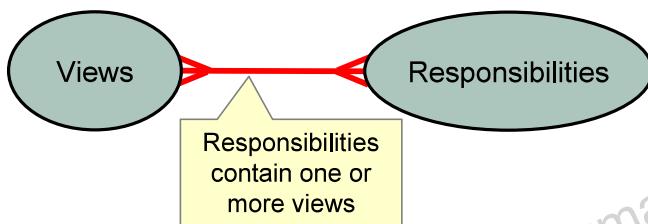
	Database Authentication	Directory Server Authentication	Web Single Sign On
Requires additional infrastructure	No	Yes	Yes
Requires database login	Yes (one for each user)	Yes (shared between users)	Yes (shared between users)
Supports user self-management	No	Yes	No
Allows creation of users from within the Siebel application	No	Yes	No
Allows using same credentials across multiple applications	No	Yes	Yes
Allows single sign-on	No	No	Yes
Allows external management of users	No	Yes	Yes

Access Control

- Is the set of mechanisms that control user access to data and application functionality
 - Application-level
 - Controls which screens are available based on what was purchased
 - Defined by license keys
 - Beyond the scope of this course
 - View-level
 - Controls which views within a screen are available to users
 - Defined by responsibilities
 - Record-level
 - Controls which records are available to employees within a view
 - Defined by record ownership, team membership, access groups, and the organizational structure

View-Level Access Control

- View-Level Access Control is based on "Responsibilities"
- A Responsibility is a set of views associated with a job function
 - A view is assigned to one or more responsibilities



View-Level Access Control

A responsibility can also be used to limit user access to business services, business processes, and tasks. This prevents unauthorized users from invoking business automation processes.

Diagram: Views may belong to one or more responsibilities, and responsibilities may contain one or more views.

Record-Level Access Control

- Access to records is determined by the type of record being accessed
- There are two types:
 - Customer data:
 - Consists of dynamic, transactional data such as service requests and opportunities
 - Is typically created and managed by users of the application
 - May need to be administered by application administrators
 - Master data:
 - Includes static, referential data such as products and literature
 - Is created and maintained by administrators

Accessing Customer Data

- For customer data, the records that are displayed in a view may depend on:
 - The owner or creator of a record (for individual or personal data)
 - Positions (for team data)
 - Organizations



A Position

- Maps to a job title or role
 - Is more stable than an individual's assignment to that position
 - People might change jobs, but a function is fairly static
- May have parent or child positions to represent the reporting hierarchy

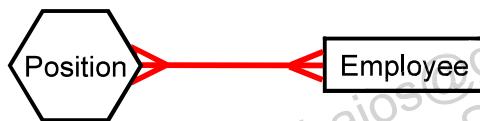
The screenshot displays the Siebel Application Administration interface. The top navigation bar includes Home, Accounts, Contacts, Opportunities, Quotes, Sales Orders, and Administration - Group. Below the navigation bar, there are links for Access Groups, Internal Divisions, Organizations, Positions (which is highlighted), and User. The main area has tabs for Positions, Menu, New, Delete, Query, and Help. On the left, a tree view shows a hierarchy: Siebel Administrator (Siebel Administrator) > CEO (Ashley Parker) > VP of Sales (Lucinda Chang) > Reseller Rep (Marion May) > ABC Sales Manager - Americas (Sara Jones) > Americas Rep 2 (Derrik Douglas) > Americas Rep 1 (Sam Reilly) > ABC Sales Manager - Asia (Gong Li). On the right, a list view titled 'Positions' shows two entries: 'Americas Rep 2' with a parent position of 'ABC Sales Manager - Americas' and 'Americas Rep 1' with a parent position of 'ABC Sales Manager - Americas'. A yellow callout box with the text 'Positions are arranged in a reporting hierarchy' points to the list view. At the bottom, a red banner contains the ORACLE logo and the text 'Copyright © 2010, Oracle. All rights reserved.'

A Position

Screenshot: The Position hierarchy is shown. This shows that such reporting hierarchies as CEO (Ashley Parker) > VP of Sales (Lucinda Chang) > ABC Sales Manager - Americas (Sara Jones) > Americas Rep 2 (Derrik Douglas) are easily implemented using Positions.

Employees and Positions

- An employee is assigned to one or more positions
 - The employee's primary position is the default upon log in
 - An employee can change to another position
 - Navigate to User Preferences > Change Position
 - The employee occupies one position at a time in the application
- A position may be held by more than one employee
 - One employee is designated as the primary for the position



Employees and Positions

Holding multiple positions: Because an employee only has access to the data for his or her current position, employees should only have multiple positions in situations where they might do different types of work or need to see different sets of data. For example, a manager might want to hold the positions of his or her subordinates in order to "see what they see" to confirm a problem with data access.

Diagram: The relationship between position and employee is many-to-many: One position may be held by multiple employees, while one employee may hold multiple positions.

Divisions and Organizations

- Divisions represent the structure of a company
 - Correspond to lines of business, departments, regions, and so on
- Divisions are not directly involved in access control
- Organizations are a special type of division used for access control

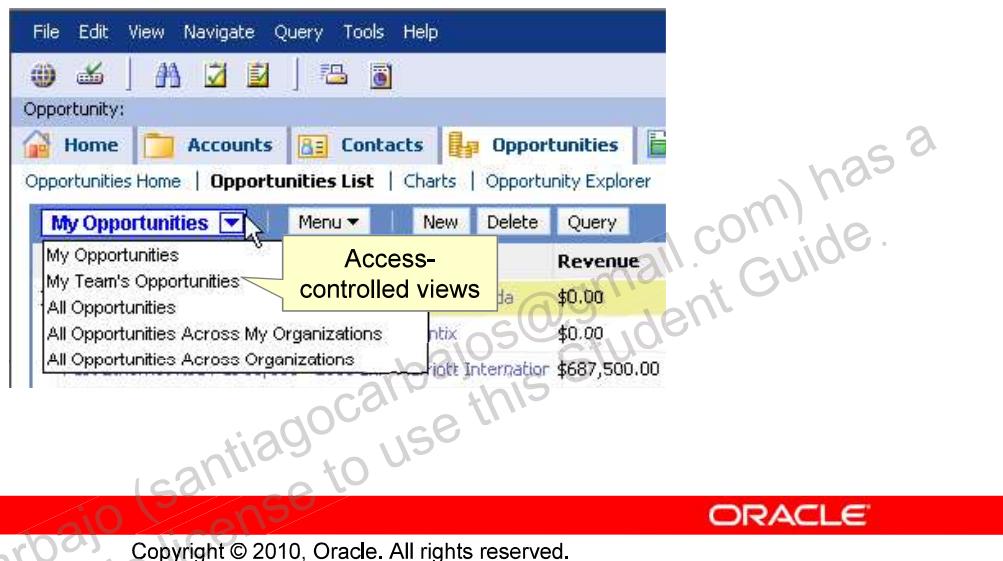


Divisions and Organizations

Screenshot: The division hierarchy is shown under Administration - Group > Internal Divisions. Once again, a reporting hierarchy such as ABC HQ > ABC Sales > ABC Asia Sales may be implemented easily.

Access-Controlled Views

- Are available based on a user's responsibilities
- Display data based on an employee's User ID, position, and organization



Access-Controlled Views

Screenshot: The Opportunities list view has a drop-down list including My Opportunities, My Team's Opportunities, All Opportunities, All Opportunities Across My Organizations, and All Opportunities Across Organizations. These are all access-controlled views.

Accessing Master Data

- For master data, the data that is visible in a view is based on:
 - Catalogs: Containers for categories
 - Categories: Containers for products, literature, or other master data
 - Access Groups: Groups of people who can access specific categories

Lesson Highlights

- Siebel applications support three authentication methods: database, directory server, and Web single sign on
- A responsibility is a set of views
- A position is a job function
- A division represents the areas of a company
- An organization is a special type of division that controls access to data
- Employees are assigned responsibilities that control the views they see and positions that control the records they see
- Master data is organized into catalogs and categories and controlled by access groups

6 Responsibilities and Views

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Objectives

After completing this lesson, you should be able to:

- Create a new responsibility
- Modify an existing responsibility
- Associate responsibilities with users
- Administer a new view

Views and Job Functions

- Users should see only those views required to perform their job functions
 - Improves efficiency for the user
 - Improves business security by preventing unauthorized access to sensitive or administrative views

System Administrator



Sales Agent



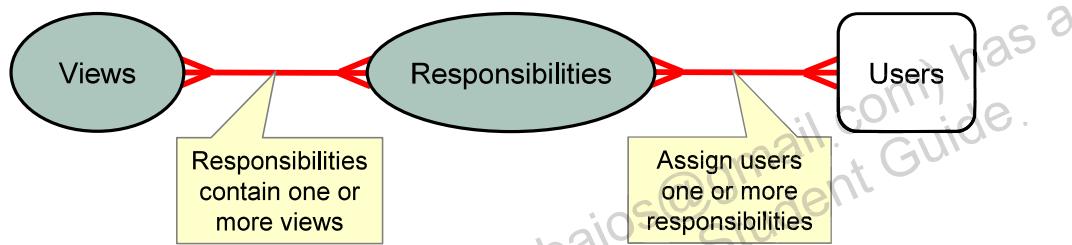
Views and Job Functions

Screens and Views: Note that the Site Map initially lists screens available to a user, not views. Therefore, two users might see an identical list of screens on the Site Map, but might find that they have different views when they drill down on a screen in the Site Map.

Screenshot: A system administrator should see many administrative views, including such views as Administration - Assignment and Administration - Catalog. A sales agent should see far fewer administrative views.

Responsibilities

- Are collections of views associated with a job function
- Are assigned to users according to their job functions
- Users frequently have more than one job function, hence have more than one responsibility



Responsibilities

Reference: "Configuring Access Control" in the *Siebel Security Guide*.

Diagram: Views and responsibilities are in a many-to-many relationship, where one view may be included in many responsibilities, and one responsibility may contain many views. Users and responsibilities are also in a many-to-many relationship, where one user may be assigned multiple responsibilities, while one responsibility may be shared by many users.

Administering Responsibilities

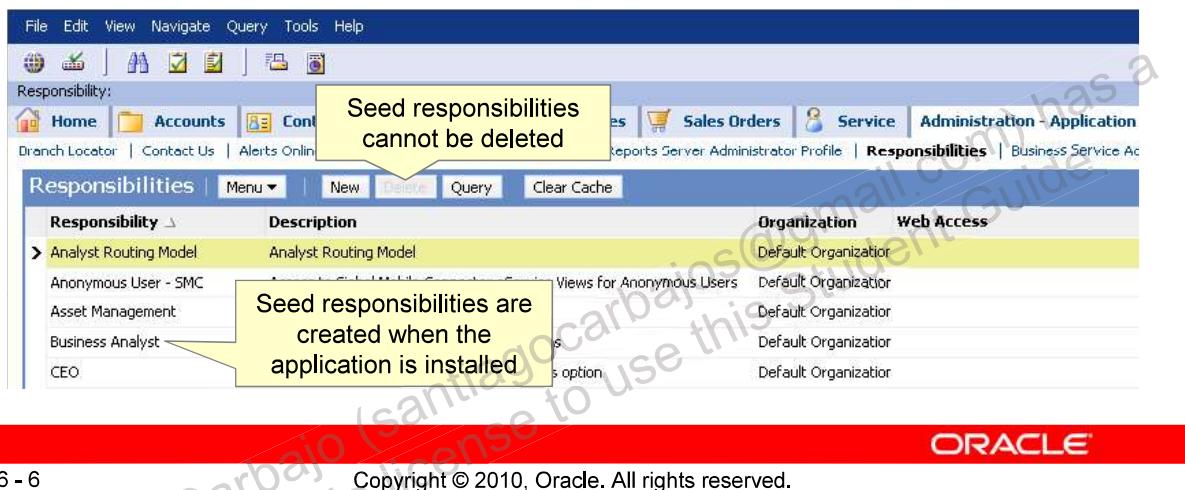
- As an application administrator, you will:
 - Create new responsibilities
 - May be entirely new, or may be based on seed responsibilities
 - Administer existing responsibilities
 - Assign responsibilities to users
 - Administer new views



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Seed Responsibilities

- Are a set of responsibilities provided with the Siebel application
 - Automatically created during application installation
- Cannot be modified or deleted
- May be copied to create new, editable responsibilities



Seed Responsibilities

Screenshot: The screenshot shows the seed responsibilities listed under Administration - Application > Responsibilities. These include responsibilities such as the Analyst Routing Model, Anonymous User - SMC, and Asset Management. These responsibilities are created when the application is installed. The Delete button is disabled since seed responsibilities cannot be deleted.

Creating New Responsibilities

- If the existing seed responsibilities are not sufficient for your business requirements, create new responsibilities as required
 - New responsibilities may be edited or deleted

The screenshot shows the Siebel Application Administration interface. The top menu bar includes File, Edit, View, Navigate, Query, Tools, and Help. Below the menu is a toolbar with various icons. The main navigation bar has links for Home, Accounts, Contacts, Opportunities, Quotes, Sales Orders, Service, Administration - Application, Branch Locator, Contact Us, Alerts Online, License Keys, Predefined Queries, Reports Server Administrator Profile, Responsibilities, and Business Service Access. The current view is 'Responsibilities'. A tooltip box with the text 'Create new responsibilities for customized, editable responsibilities' is overlaid on the 'New' button in the toolbar. The main table lists responsibilities with columns for Responsibility, Description, and Access. One row is selected, showing 'ABC Developer' with the description 'Responsibility for ABC Company Developers'. Other rows include Analyst Routing Model, Anonymous User - SMC, Asset Management, Business Analyst, and CEO.

Responsibility	Description	Access
ABC Developer	Responsibility for ABC Company Developers	
Analyst Routing Model	Analyst Routing Model	
Anonymous User - SMC	Access to Siebel Mobile Connector eService View	
Asset Management	Asset Management	Default Organization
Business Analyst	User of ePortal Base and all Analysis Options	Default Organization
CEO	User of ePortal Base and Executive Analysis option	Default Organization

Creating New Responsibilities

Screenshot: The screenshot once again shows the Administration - Application > Responsibilities view, but this time a new responsibility named ABC Developer has been created, with the description, "Responsibility for ABC Company Developers". You create new responsibilities in order to have customized, editable, responsibilities.

Create a Responsibility

1. Copy an Existing or Create a New Responsibility
2. Add or Remove Views
3. Clear the Responsibility Cache
4. Test the Responsibility
5. Assign the Responsibility to Users



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1. Copy an Existing or Create a New Responsibility

- Navigate to the Administration - Application > Responsibilities view
- Copy an existing responsibility with a set of views similar to your requirements
- Alternatively, create a new responsibility to start without any views



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1. Copy an Existing or Create a New Responsibility

Screenshot: The screenshot shows the Responsibilities applet, with the applet-level menu expanded and Copy Record selected. This copies the currently-selected Responsibility record, in this case, the Technical Account Manager record. The duplicate responsibility can be edited or deleted.

Copy or Create?

- Copying seed responsibilities:
 - Provides a "quick start" in creating responsibilities with large numbers of views
 - You do not need to add dozens of views manually
 - May provide far more views than your business requires
 - Seed responsibilities frequently contain hundreds of views
 - You do need to delete the inappropriate views
- Creating new responsibilities:
 - Allows you to specify exactly which views to include from the start
 - You do not need to delete inappropriate views
 - Requires determining exactly which views a user may require and adding those views to the responsibility
 - You may need to add dozens of views to each responsibility

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Copy or Create?

The critical point is that copying seed responsibilities may require you to delete views from the new responsibility, while creating a new responsibility requires you to add views. Your business analyst should be able to suggest the best approach for your business.

Determining Views for a Responsibility

- There are two approaches to managing views and responsibilities:
 - Job role or task-based responsibilities
 - One responsibility includes all of the views necessary for a particular job role or task
 - For example, a Call Center Agent responsibility might include views for Service Requests, Contacts, and Activities
 - This is the approach taken in the seed responsibilities
 - Functional area-based responsibilities
 - For example, one responsibility for Service Request views
- Your business analyst should decide which approach to take
 - A mixed approach is possible

2. Add or Remove Views

- Add or remove views from the responsibility as necessary
 - A pick applet provides querying functionality and improves efficiency when selecting views

1. Click Add to add views to a responsibility

2. The pick applet supports querying for and adding multiple views at once

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2. Add or Remove Views

Screenshot: The screenshot shows the ABC Developer responsibility selected. The Responsibilities view tab is selected, exposing the Views applet. Clicking the Add button in the Views applet brings up the Add Views pick applet, allowing you to quickly query for and select one or more views to add to the selected responsibility. In the screenshot, the user has queried for views whose Names start with Repository, and the Repository Workflow Process Definition Parent-Child View is selected.

3. Clear the Responsibility Cache

- Clear the responsibility cache to ensure that users will see their updated responsibilities the next time they log in

The screenshot shows the Siebel Application Administration interface. At the top, there's a toolbar with various icons. Below it, a navigation bar includes links like Home, Accounts, Contacts, and Reports Server Administrator Profile. The main area is titled 'Responsibilities' and contains a table with columns for Responsibility, Description, Organization, and Web Access. Two rows are visible: 'ABC Developer' and 'Analyst Routing Model'. Below this table, there are tabs for Responsibilities, Tab Layout, Links, Business Service, and Business Process. The 'Responsibilities' tab is selected. At the bottom of the screen, there's a red footer bar with the Oracle logo and copyright information: 'Copyright © 2010, Oracle. All rights reserved.'

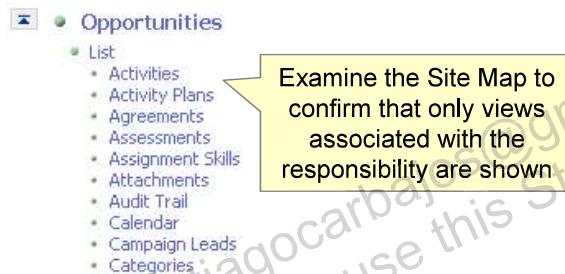
3. Clear the Responsibility Cache

Current Users: Users who are currently logged in will not see the changes to their responsibilities, even if the cache is cleared. They must log out and log back in again to see the change.

Screenshot: The screenshot shows the Administration - Application > Responsibilities view, with the Clear Cache button. You should clear the cache whenever you create or modify one or more responsibilities.

4. Test the Responsibility

- Assign the responsibility as the sole responsibility for a sample user
 - Details are on the next few slides
- Log in as that user and verify the available views from the Site Map
 - Users only see links for views that are contained in their responsibilities



4. Test the Responsibility

Screenshot: The screenshot is the Opportunities section of the Site Map, with the Opportunities List View and its child views shown. The Site Map is a quick and convenient way to test a new or modified responsibility.

5. Assign the Responsibility to Users

- Assign responsibilities to users according to their job role(s) or functions
 - Users with multiple responsibilities see the union of the views
 - The tab layout is based on the user's primary responsibility or user preferences
 - Users with no responsibilities see nothing
 - It is critical to remember to assign responsibilities to partners and Web customers

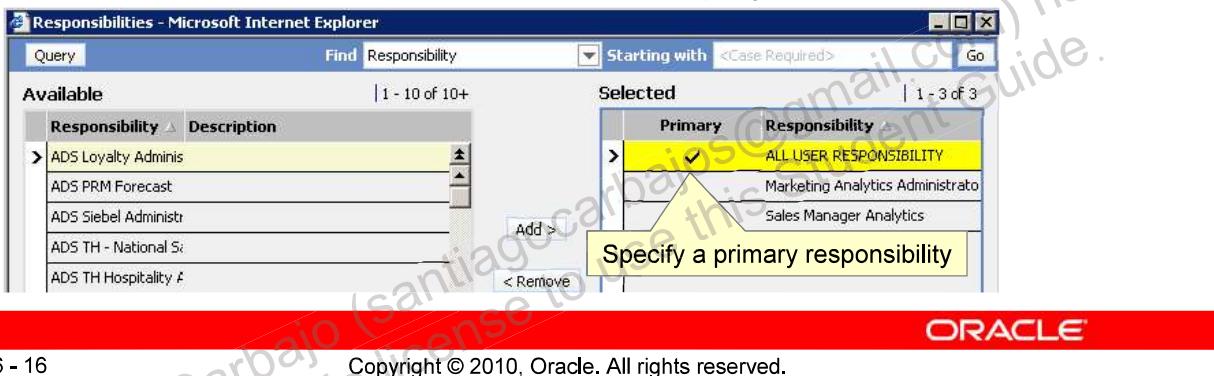
5. Assign the Responsibility to Users

User Preferences: Setting and clearing user preferences will be discussed in a subsequent lesson. For now, you should be aware that users can modify their user preferences to override the tab layout you specify for a responsibility.

Anonymous Users: It is particularly important to ensure that anonymous users browsing customer-facing applications have at least one responsibility. The Web Anonymous User seed responsibility is a useful responsibility for this. For more information, see the documentation for your particular customer-facing application.

To Assign Responsibilities to Users

- Navigate to Administration - User > Users and select the user to modify
 - Employees are also users, so this view works for both employees and users
- Use the Responsibilities shuttle applet to select one or more responsibilities for the user
 - Specify a primary responsibility to determine how the user's initial screen and view tabs are displayed



To Assign Responsibilities to Users

The Administration - Application > Responsibilities view also allows you to assign users to the responsibility you just created, so you do not need to leave the Responsibilities view. However, it does not allow you to specify primary responsibilities for each user.

New Views

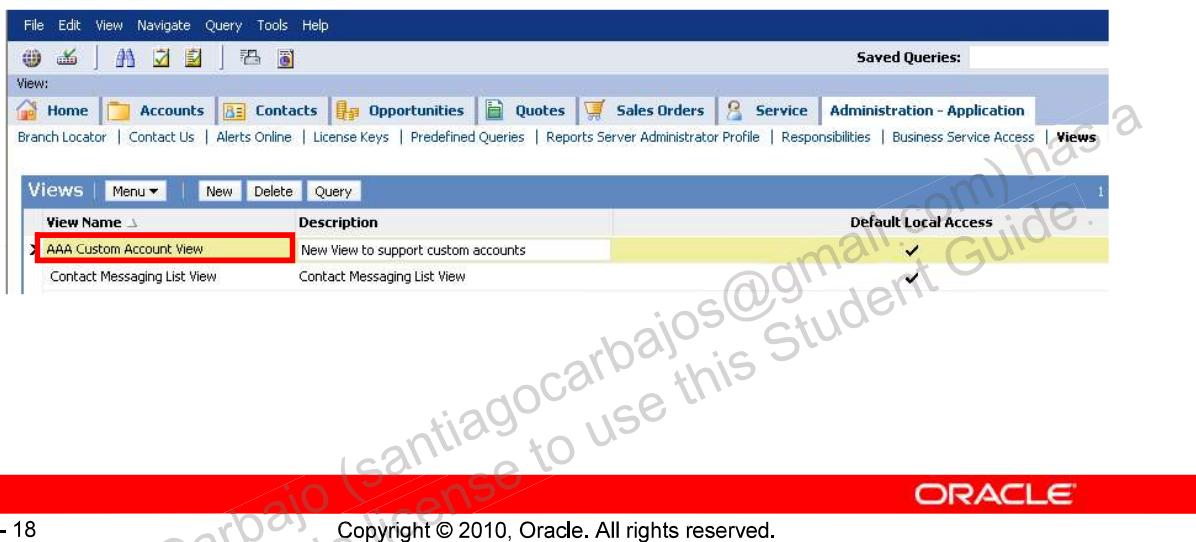
- Developers may use Siebel Tools to create new View object definitions to meet business requirements
- You must administer these views to make them available:
 - Add the view to the application
 - Add the view to a responsibility



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Add the View to the Application

- Navigate to Administration - Application > Views
- Create a new record for the view
 - The View Name must exactly match the name the developer used in Siebel Tools (spaces, capitalization, and so on)



Add the View to the Application

Screenshot: The screenshot shows Administration - Application > Views, with a new view named AAA Custom Account View created. This view name is highlighted; it must exactly match the name the developer used in Siebel Tools.

Add the View to a Responsibility

- Navigate to Administration - Application > Views
- Add records in the Responsibilities applet to associate the view with one or more responsibilities
- Clear the responsibilities cache

The screenshot shows the Siebel Application Administration interface. At the top, there is a navigation bar with links for Home, Accounts, Contacts, Opportunities, Sales Orders, Service, Administration - Application, and Views. Below the navigation bar, there are two main tables:

- Views:** A table titled "Views" with columns "View Name" and "Description". It contains two rows:
 - AAA Custom Account View: New View to support custom Accounts
 - Contact Messaging List View: Contact Messaging List View
- Responsibilities:** A table titled "Responsibilities" with columns "Responsibility", "Description", "Organization", "Web Access", "Local Access", and "Read Only View". It contains one row:
 - Partner Sales Manager - New: Partner Sales Manager-New, Default Organization, Local Access checked, Read Only View checked

A callout box points from the "Add responsibilities to associate the selected view with them" text to the "Responsibilities" table.

At the bottom of the screen, there is a red footer bar with the ORACLE logo and copyright information: "6 - 19" and "Copyright © 2010, Oracle. All rights reserved."

Add the View to a Responsibility

Associating Users, Responsibilities, and Views: Note that because of the many-to-many relationships between users, views, and responsibilities, it is possible to create associations in multiple ways. For example, you can add views to a responsibility either by navigating to Administration - Application > Responsibilities, selecting the responsibility, and adding the view there, or by navigating to Administration - Application > Views, selecting the view, and adding the responsibility there. These two methods are entirely equivalent. However, because the "Clear Cache" button is available on the Administration - Application > Responsibilities applet, you might find it easier to work with users, views, and responsibilities there.

Screenshot: The screenshot shows the Administration - Application > Views view, with a new AAA Custom Account View selected, and the Partner Sales Manager - New responsibility added to the view.

View and Responsibility Options

- **Read Only View** (for a view assigned to a responsibility)
 - Controls whether or not data in the view is editable
 - Set this to TRUE (check the checkbox) to prevent users from creating or modifying data in a view
- **Local Access** (for all views)
 - Determines whether or not views are available to mobile users
 - DO NOT enable local access to any All views
- **Web Access** (for a Responsibility)
 - Allows non-administrators to assign the responsibility to users
 - For example, a Call Center Agent might be allowed to assign the responsibility to a Contact

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View and Responsibility Options

Read Only View: This allows users with different responsibilities to have read only or read/write access to the same view. If a user has multiple responsibilities containing the same view, then the user will have read/write access to the view unless all of the responsibilities have the view marked as a Read Only View. In other words, read/write access takes precedence.

Local Access: Every view has a Default Local Access setting. This setting may be overridden by modifying the Local Access checkbox for the view in the Responsibility. For example, the My Team Account List View (SCW) is configured to have default local access. You might create a new responsibility that includes this view, but does not have Local Access checked. In this case, assuming the new responsibility was the only responsibility for the user containing the My Team Account List View (SCW), then the user would not have local access to the view.

All Views: Because the Siebel Mobile Web client attempts to fix foreign key relationships when displaying records from the local database, administrators must ensure that all of the records related to the local records being displayed are included in the local database. This is nearly impossible for All views, so you should never enable Local Access for All views, or you risk corrupting your data. For more information, see, "Disabling Local Access to All Views" in the *Siebel Remote and Replication Manager Administration Guide*.

Web Access: The Web Access flag is usually used with Siebel eService or eSupport. These applications are being replaced by the Siebel Self-Service application, hence the Web Access flag may not be used in your deployment.

Lesson Highlights

- Responsibilities are collections of views used to limit the views visible to a user
- Responsibilities have a M:M relationship with views and users
- Create responsibilities by copying and editing seed responsibilities or by creating new responsibilities
- Assign responsibilities to a user and clear the responsibility cache before testing a responsibility
- Add new views and associate them with responsibilities as necessary

Practice 6 Overview: Exploring Responsibilities

This practice covers the following topics:

- Exploring seed responsibilities
- Creating and testing a new responsibility

Users, Positions, and Organizations

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Objectives

After completing this lesson, you should be able to:

- Define users, positions, and organizations
- Describe how data access is controlled by users, positions, and organizations
- Implement the company structure using divisions, organizations, positions, users, and employees

Business Challenge

- Applications should not grant all users access to all of the data within the application
 - For example, sales representatives should see their own sales quota attainment, but no one else's
 - On the other hand, sales managers should see all of their reports' quota attainments
- Administrators require a mechanism to restrict access to data within the application
 - This mechanism should be independent of the mechanism to restrict access to views

Business Solution: Access Control

- Siebel applications allow different users to see different data based on their user ID, position, or organization within the company
 - Data access control is independent of responsibilities and views
 - Example: Ted Arnold and Casey Cheng can access the same view based on their responsibilities, but see different data in the view

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Business Solution: Access Control

Reference: "Configuring Access Control" in the *Siebel Security Guide*

Administering Access Control

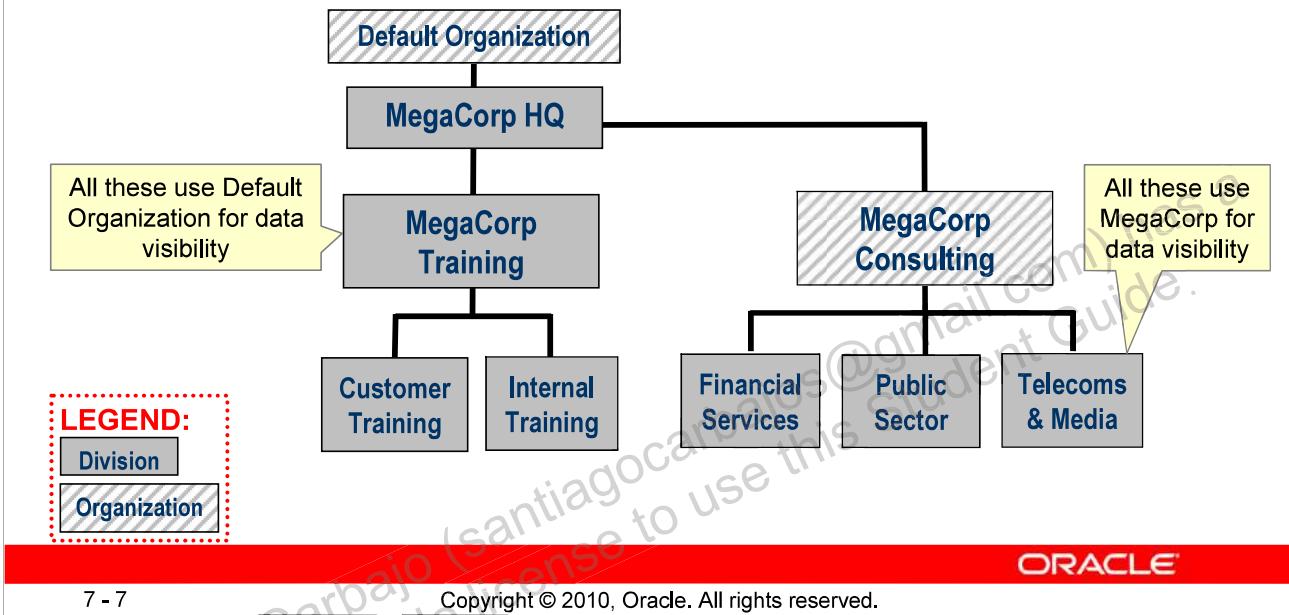
- As an application administrator, you use access control mechanisms to control the data that the user has access to:
 - Implement the company structure, including creating divisions and labeling some of them as organizations
 - Create positions, representing employees' job titles
 - Create or administer users and employees
 - Employees are a special type of user that can hold positions
 - All users require responsibilities

Divisions and Organizations

- A company is divided into divisions representing lines of business, regions, or departments
- Divisions are arranged in a hierarchy
- Organizations are a special type of division used to restrict data access within that division
 - Certain views only show data for the employee's position's current organization
 - Data is shared among divisions within an organization

A Division's Organization

- Is the first organization "at or above" the division in the reporting hierarchy
 - Used to determine data visibility for the division

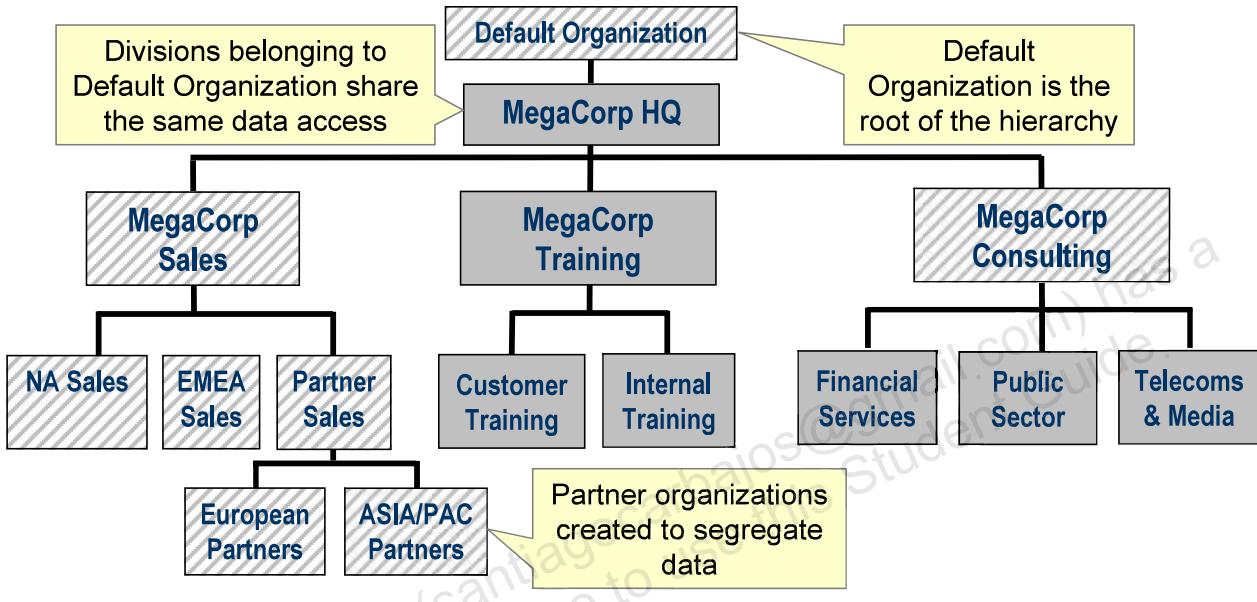


A Division's Organization

Diagram: The diagram shows an example divisional/organizational structure. On the left at the top is the Default Organization, with the MegaCorp HQ division as its subdivision. The MegaCorp Training division is a subdivision of MegaCorp HQ, and the Customer Training and Internal Training divisions are subdivisions of MegaCorp training. Because all of these are divisions, all of them belong to the Default Organization organization. This determines their organizational data visibility. On the right, the MegaCorp Consulting organization is a sub-organization of the MegaCorp HQ division. Because it is an organization, it has separate organizational data visibility. The Financial Services, Public Sector, and Telecoms & Media divisions are all subdivisions of the MegaCorp Consulting organization, hence their organization is MegaCorp Consulting.

Example: MegaCorp Organizational Structure

- Here is a sample organizational structure of a sample company, MegaCorp



Example: MegaCorp Organizational Structure

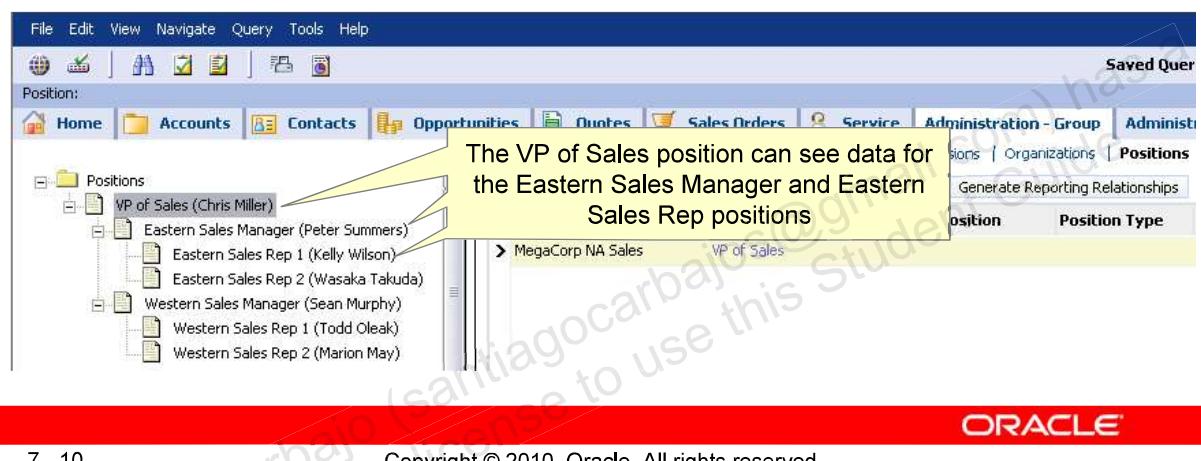
Diagram: The diagram shows an example divisional/organizational structure. The Default Organization, which is part of the Siebel CRM seed data, is the root of the hierarchy. Below the Default Organization is the MegaCorp HQ division. The MegaCorp Sales and MegaCorp Consulting organizations are sub-organizations of the MegaCorp HQ division, and the MegaCorp Training division is a subdivision of the MegaCorp HQ division. This allows the sales and consulting divisions to keep their data separate from the main company. The NA Sales, EMEA Sales, and Partner Sales organizations are all sub-organizations of the MegaCorp Sales organization. Once again, sales organizations are likely to want to segregate their data, so they are all organizations. The hierarchy may continue; in the diagram the European Partners and ASIA/PAC Partners organizations are sub-organizations of the Partner Sales organizations. On the other hand, the MegaCorp Training division has Customer Training and Internal Training subdivisions, and all of the data is part of the Default Organization's data. Finally, the Financial Services, Public Sector, and Telecoms & Media divisions are subdivisions of the MegaCorp Consulting organization. While the MegaCorp Consulting organization segregates its data from the main company data, its subdivisions share organizational data among themselves.

Positions

- Are used to implement the reporting structure of the company
 - For example, the Eastern Sales Rep 1 position may report to the Eastern Sales Manager position, which then reports to the VP of Sales position
- May also be used to control access to data within the application
 - For example, a sales representative's accounts are only visible to members of his or her sales team
- Typically represent job titles
 - For example, Call Center Agent or Sales Representative

Position Hierarchy

- Positions are arranged in a hierarchy
 - Defines a reporting structure that allows managers to see data from their direct and indirect reports
 - The Administration - Group > Positions view shows this hierarchy
 - Also shows the primary employee for each position



Position Hierarchy

Primaries: Each employee has one or more positions. The primary position for the employee determines what data the employee will see. Each position may contain one or more employees, depending on your company's business needs. You must specify a primary employee for the position. Designating an employee as the primary employee for a position does not have a significant impact on that employee's user experience. The employee's name is used to populate fields that display employees associated with a position; for example, in the position hierarchy.

Screenshot: The screenshot shows the position hierarchy under Administration - Group > Positions. The VP of Sales position is selected, with Chris Miller being the employee assigned as the primary employee for that position. The Eastern Sales Manager (Peter Summers) and Western Sales Manager (Sean Murphy) positions report to the VP of Sales position. The Eastern Sales Rep 1 (Kelly Wilson) and Eastern Sales Rep 2 (Wasaka Takuda) positions report to the Eastern Sales Manager position, while the Western Sales Rep 1 (Todd Oleak) and Western Sales Rep 2 (Marion May) positions report to the Western Sales Manager position. Because the VP of Sales (Chris Miller) position is at the top of this hierarchy, Chris Miller should have visibility into all of the records for all of the subordinate positions; for example, the Eastern Sales Manager or Western Sales Rep 1 positions.

Positions and Divisions

- A position is assigned to one, and only one, division
- A position is associated with one, and only one, organization:
 - The organization to which the division belongs

This position is associated with the MegaCorp East Sales division, which belongs to the Default Organization

The Eastern Sales Manager position is assigned to the MegaCorp East Sales division

Positions and Divisions

Screenshot: The screenshot shows the Administration - Group > Positions view. On the left is a position explorer. On the right, the top applet is a position list applet, while the bottom applet is a position form applet. The Eastern Sales Manager position is selected in the list applet. The list applet shows that the Eastern Sales Manager position is assigned to the MegaCorp East Sales division. The form applet shows that this MegaCorp East Sales division belongs to the Default Organization organization.

Users

- Are individuals who use the Siebel application
 - May be employees, customers, or partners
- Require unique user IDs
- Require at least one responsibility to see views in the application

Last Name	First Name	User ID	Responsibility
Cheng	Casey	ITA_CCHE	Call Center Manager
Cheng	Chris	KOR_CCHE	
Cheng	Chris	SVE_CCHE	
Cherian	John	JCHERIYA	

Note that multiple users can have the same name as long as their user ID is different

Users must have at least one responsibility or they will see no views

Reports User
ERM User

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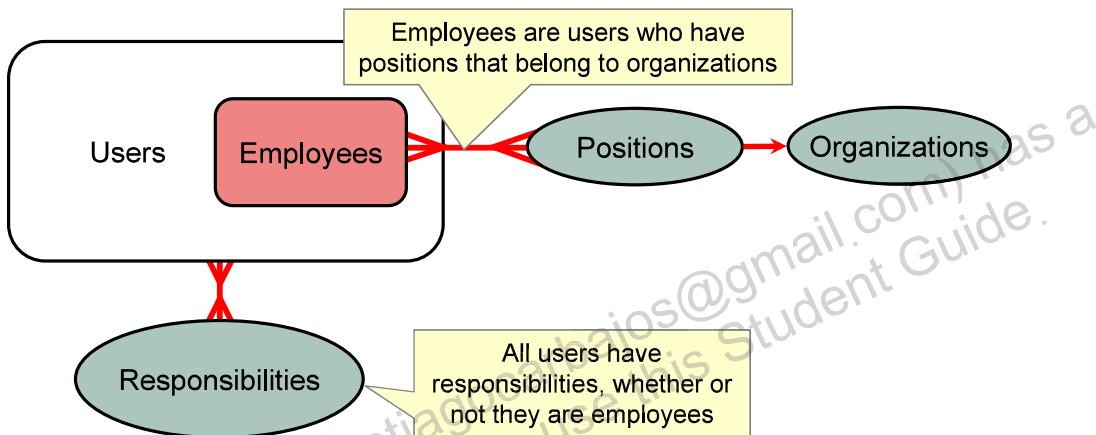
Users

Reference: "Required Application Administration Tasks" in *Developing and Deploying Siebel Business Applications*.

Screenshot: The screenshot shows the Users list applet and four users: Casey Cheng, Chris Cheng with a User ID of KOR_CCHE, Chris Cheng with a User ID of SVE_CCHE, and John Cherian. Because the two Chris Chongs have different User IDs, there is no conflict, even though they share the same first and last names. Each user must have at least one responsibility; for example, Casey Cheng has the Call Center Manager responsibility.

Employees

- Are a special type of user representing employees of the company
 - Employees have one or more positions within the company
 - Each position belongs to an organization within the company



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Employees

Diagram: The diagram once again shows that responsibilities are in a many-to-many relationship with users. In particular, every user must have at least one responsibility. Employees are shown as a subset of users, and employees have a many-to-many relationship with positions; that is, one employee may hold one or more positions, and one position may be occupied by more than one employee.

Positions and Employees

- Employees may have one or more positions
 - One position is designated as the primary position by the application administrator, and is the position employees occupy when they log in
- Employees only see data for their current position
 - This is unlike responsibilities, where users have access to the union of all of the views for all of their responsibilities
- Employees may change positions once they have logged in

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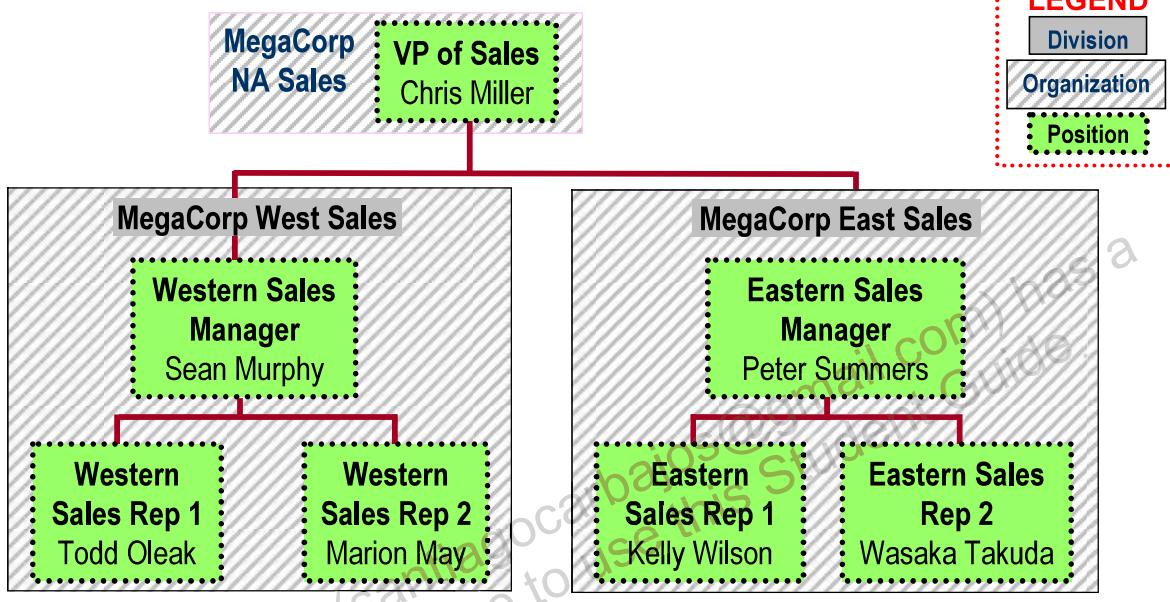
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Positions and Employees

For many employees, they are the only employee assigned to their positions. For example, a company might have Sales Rep 1, Sales Rep 2, Sales Rep 3 positions, and so forth, with one employee per position. This allows very specific assignments; for example, of sales teams to accounts. On the other hand, Call Center Agents might share service request data, so all Call Center Agents might share one position. The exact assignment of employees to positions should be performed by your business analyst, and you will administer the employees and the position hierarchy based on his or her recommendations.

Example: NA Sales with Positions and Users

- The NA Sales organization might have users and positions that look something like this:



Example: NA Sales with Positions and Users

Diagram: The diagram shows an example position hierarchy. The VP of Sales position has Chris Miller as its primary employee, and is assigned to the MegaCorp NA Sales organization. The Western Sales Manager position has Sean Murphy as its primary employee, belongs to the MegaCorp West Sales organization, and reports to the VP of Sales position. The Western Sales Rep 1 position has Todd Oleak as its primary employee, belongs to the MegaCorp West Sales organization, and reports to the Western Sales Manager position. The Western Sales Rep 2 position has Marion May as its primary employee, belongs to the MegaCorp West Sales organization, and reports to the Western Sales Manager position. Because it is common for sales representatives to own their own data (for example, opportunities), each sales representative is likely to have his or her own position, thus we have Sales Rep 1, Sales Rep 2, and so forth. On the right side of the diagram, The Eastern Sales Manager position has Peter Summers as its primary employee, belongs to the MegaCorp East Sales organization, and reports to the VP of Sales position. The Eastern Sales Rep 1 position has Kelly Wilson as its primary employee, belongs to the MegaCorp East Sales organization, and reports to the Eastern Sales Manager position. The Eastern Sales Rep 2 position has Wasaka Takuda as its primary employee, belongs to the MegaCorp East Sales organization, and reports to the Eastern Sales Manager position.

Changing Positions

- If an employee has more than one position, he or she can change position during a session
 - Select Tools > User Preferences from the application-level menu
 - Click Change Position in the link bar
 - Select the new position
- As an application administrator, you specify the default login (primary) position for an employee
 - Navigate to Administration - User > Employees
 - Use the Position MVG applet to specify an employee's position(s) and primary position

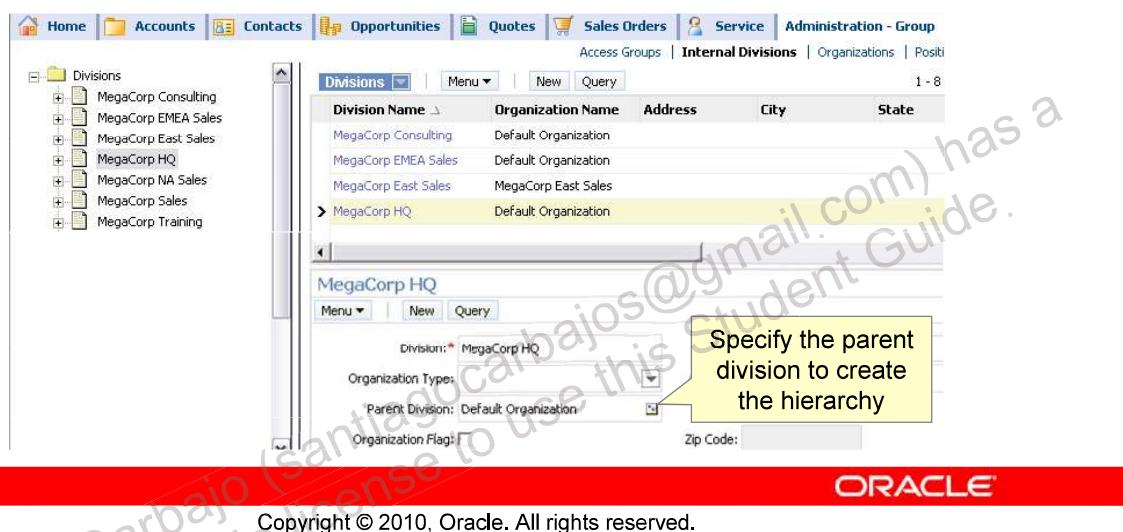
Implementing the Company Structure

1. Create Divisions and the Division Hierarchy
2. Label Some Divisions as Organizations
3. Create Positions
4. Create Users
5. Create Employees



1. Create Divisions and the Division Hierarchy

- Create divisions and organizations in the Administration - Group > Internal Divisions view
 - Specify the name, currency, and parent division
 - Be careful: Once divisions are created they cannot be deleted



1. Create Divisions and the Division Hierarchy

Creating Organizations: It is easier to create all of the divisions and organizations as divisions first, thus implementing the entire division hierarchy. Once you have confirmed the hierarchy, then you can label some of the divisions as organizations.

Division Hierarchy: Your business analyst should provide you with a division hierarchy to implement. In some cases, an integration specialist might import the division hierarchy from an external data source. In that case, you would need to modify the reporting structure to ensure that the imported division hierarchy matched the one provided to you by the business analyst.

Removing Unwanted Divisions: Because divisions cannot be deleted, if you accidentally create a division you do not wish to keep, rename it and remove it from your division hierarchy. You can then create a new division with the old name.

Screenshot: The screenshot shows the Administration - Group > Internal Divisions view. This view includes a division hierarchy explorer to the left, a list applet listing the divisions in the upper right, and a form applet listing the division details in the lower right. In the form applet is a Parent Division field. Use the Select button in the Parent Division field to specify a parent division for each division to implement the division hierarchy.

2. Label Some Divisions as Organizations

- Label divisions as organizations by clicking the Organization Flag check box
 - Be careful: This cannot be undone

The screenshot shows the Siebel Application Administration interface. The top navigation bar includes Home, Accounts, Contacts, Opportunities, Quotes, Sales Orders, Service, and Administration - Group. The Administration - Group tab is selected. Below the navigation bar is a toolbar with Access Groups, Internal Divisions, and Organizations buttons. The main area displays a hierarchical tree on the left under 'Divisions' with nodes like Divisions, MegaCorp Consulting, MegaCorp EMEA Sales, etc. To the right is a table titled 'Divisions' with columns: Division Name, Organization Name, Address, City, and State. The table contains five rows: 'MegaCorp Consulting' (Organization Name: Default Organization), 'MegaCorp EMEA Sales' (Organization Name: Default Organization), 'MegaCorp East Sales' (Organization Name: MegaCorp East Sales), 'MegaCorp HQ' (highlighted in yellow and selected in the table), and 'MegaCorp NA Sales'. The 'MegaCorp HQ' row shows 'Default Organization' in the Organization Name field. Below the table is a form for 'MegaCorp HQ' with fields for Division (MegaCorp HQ), Site, Organization Type, Parent Division (Default Org), and Organization Flag. A yellow callout box points to the 'Organization Flag' checkbox, which is checked. The bottom right corner of the interface features the ORACLE logo.

2. Label Some Divisions as Organizations

Default Organization: Default Organization is one of the seed organizations in the Siebel application. Because much of the seed data is assigned to Default Organization, it should not be modified.

Removing Unwanted Organizations: Because organizations cannot be deleted or turned back into divisions, if you accidentally create an organization you do not wish to keep, rename it and remove it from your hierarchy.

Screenshot: The screenshot shows the Administration - Group > Internal Divisions view, with the Organization Flag check box in the form applet for the division.

3. Create Positions

- Create Positions using the Administration - Group > Positions view
- Assign the position to a division
 - The position's organization will be the organization that contains that division
- Specify a parent position to create the position hierarchy
- Siebel applications provide some seed positions
 - For example, the Siebel Administrator position

The screenshot shows the Siebel Application Administration interface. On the left, there is a navigation bar with links for Home, Accounts, Contacts, and so on. Below it is a tree view under the 'Positions' node, listing items like 'ERM AnonUser (ERM Guest)', 'Proxy Employee (Proxy Employee)', 'Siebel Administrator (Siebel Administrator)', and 'Siebel Administrator ()'. On the right, there is a main content area titled 'Administration - Group > Positions'. A yellow callout box points to the top of this section with the text: 'The Siebel application has several seed positions, including Siebel Administrator'. The main table displays four rows of data:

Division	Position	Parent Position	Position Type	Last Name
ERM AnonUser	ERM AnonUser			Guest
Default Organization	Proxy Employee			Employee
Siebel Administration	Siebel Administrator	Siebel Administrator	Siebel Administrator	Administrator

At the bottom of the interface, there is a red footer bar with the text '7 - 20' and 'Copyright © 2010, Oracle. All rights reserved.' followed by the 'ORACLE' logo.

3. Create Positions

Position Hierarchy: Your business analyst should provide you with a position hierarchy to implement. In some cases, an integration specialist might import the position hierarchy from an external data source. In that case, you would need to modify the reporting structure to ensure that the imported position hierarchy matches the one provided to you by the business analyst.

Screenshot: The screenshot shows the Administration - Group > Positions view. On the left side is a position explorer. On the right is a positions list applet. The columns include the division of the position, the position name, and the parent position.

4. Create Users

- Create non-employee Users using the Administration - Users > Users view
 - For example, customers and partners
 - There is a separate view for creating employees
- Assign each user at least one responsibility
 - Recall: Without responsibilities, users cannot access any views

4. Create Users

Users and Positions: Non-employee users do not have positions.

5. Create Employees

- Create employees using the Administration - User > Employees view
 - Employees will also appear as users
- Assign employees positions and responsibilities
- Optionally, modify the Organization for the employee record
 - Defaults to the creator's organization
 - Used for accessing the employee record, rather than the employee's position's organization

Last Name	First Name	Job Title	User ID	Position	Organization	Employee Type	Responsibility
Summers	Peter	Eastern Sales Manager	PSUMMERS	Eastern Sales Manager	Default Organization	Employee	Siebel Administrator

5. Create Employees

Organizations: There are at least two organizations associated with each employee record: The employee's position's organization, that determines the data that the employee sees, and the employee record's organization, that determines who can see the employee record itself. It is important to keep this in mind when administering employee records.

Screenshot: The screenshot shows the Administration - User > Employees view, with the Peter Summers record selected. He has a Job Title of Eastern Sales Manager, a User ID of PSUMMERS, a Position of Eastern Sales Manager, an Organization of Default Organization (the organization to which the employee record belongs), an Employee Type of Employee, and a Responsibility of Siebel Administrator. Typically, an employee's position and job title are the same, although this may change when there are multiple employees with similar positions; for example, the Western Sales Rep 1, Western Sales Rep 2, Eastern Sales Rep 1, and Eastern Sales Rep 2 positions might all have job titles of "Sales Representative".

Lesson Highlights

- Users are individuals who log in to the application
 - Users require responsibilities to access views
 - All users have unique User IDs
- Positions are similar to job titles, and are used to determine what data an employee can see
- Divisions represent divisions within the company
- Organizations are specialized divisions used to limit data visibility
- Employees are special users representing employees of the company
 - Hold at least one position
 - Belong to at least one organization

Practice 7 Overview: Exploring the Company Structure

This practice covers the following topics:

- Exploring data visibility in the application
- Modifying and testing the division and organization structure