

## **Core Consultant Course (Siebel 8.0)**

**Volume I • Student Guide**

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**ORACLE®**

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## Contents

- Module i: Siebel 8.0 Essentials Training**
- Module 1: Introducing Siebel Applications**
- Module 2: Using the Siebel Web Client**
- Module 3: Working With Siebel Data**
- Module 4: Responsibilities and Views**
- Module 5: Users, Positions, and Organizations**
- Module 6: Controlling Access to Customer Data**
- Module 7: Catalogs and Master Data**
- Module 8: The Siebel Web Architecture**
- Module 9: Server Components and Parameters**
- Module 10: Server Management**
- Module 11: Siebel Client Types**
- Module 12: Securing Access to the Application**
- Module 13: Installing Siebel Applications**
- Module 14: Siebel Application Architecture**
- Module 15: Using Siebel Tools to Examine Object Definitions**
- Module 16: The Siebel Data Model**
- Module 17: Siebel Business Components**
- Module 18: Siebel Party Business Components**
- Module 19: Siebel Business Objects**
- Module 20: Configuration Strategy**
- Module 21: The Configuration Process**
- Module 22: Managing Object Definitions**
- Module 23: Editing and Compiling Object Definitions**
- Module 24: UI Layer Configuration: Web Templates**
- Module 25: UI Layer Configuration: Applets**
- Module 26: UI Layer Configuration: Applications, Screens, and Views**
- Module 27: UI Layer Configuration: Drilldowns**
- Module 28: Business Layer Configuration: Joins**
- Module 29: Business Layer Configuration: Existing Business Components and Fields**

- Module 30: Business Layer Configuration: New Business Components and Fields**
- Module 31: Business Layer Configuration: Picklists**
- Module 32: Configuring Multi-Value Groups**
- Module 33: Data Layer Configuration**
- Module 34: Siebel Business Services**
- Module 35: Building Siebel Workflow Processes**
- Module 36: Testing and Deploying Workflow Processes**
- Module 37: Executing Workflow Processes**
- Module 38: Using Workflow Policies**
- Module 39: Siebel Task UI**
- Module 40: Task UI: Creating a Task**
- Module 41: Transient Business Components and Branching**
- Module 42: Siebel Business Rules**
- Module 43: Creating Business Rules**
- Module 44: Introducing Siebel Assignment Manager**
- Module 45: Creating Assignment Rules**
- Module 46: Tailoring Assignment Manager Behavior**
- Module 47: Invoking Siebel Assignment Manager**
- Module 48: State Models**
- Module 49: Introducing Enterprise Integration Manager**
- Module 50: Creating Data Maps**
- Module 51: Running Enterprise Integration Manager**
- Module 52: Introducing Application Deployment Manager**
- Module 53: Deploying Application Customizations**



i

***Siebel 8.0 Essentials***

## **Module i: Siebel 8.0 Essentials Training**

i

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## Module Agenda

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



## Instructor and Class Participants

i

- Who are you?
  - ▶ Name
  - ▶ Company
  - ▶ Role
- What is your prior experience?
  - ▶ Siebel Applications
  - ▶ Relational database
- How do you expect to benefit from this course?



## Training Site Information

- Bathrooms



- Telephones



- Fire Exits



- Class duration and breaks



- Meals and refreshments



- Questions?



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4 of 18



i

## Course Audience

- This course is designed for implementation teams
  - ▶ Application developers
  - ▶ System architects and configurators
  - ▶ Database administrators
  - ▶ Systems administrators



## Course Prerequisites

- Basic Windows or NT navigation and file-management skills
- Understanding of basic relational database concepts
- Familiarity with application development
- Familiarity with Web-based and client/server applications



## Course Goal

- To enable participants to identify and perform tasks required for an initial Siebel 8 Application deployment

i

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7 of 18



## Course Objectives

- Navigate the Siebel application user interface
- Secure access to Siebel applications and data
- Define your company structure
- Describe the Siebel application architecture
- Describe the steps required to install Siebel application software to set up your enterprise
- Configure a Siebel application
- Automate business rules in your Siebel application
- Populate and migrate data into the Siebel database
- Migrate data between environments



## Course Methodology

- Subject matter is delivered via:
  - ▶ Lecture and slide presentations
  - ▶ Software demonstrations
  - ▶ Class discussions
  - ▶ Hands-on labs

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9 of 18



## Course Materials

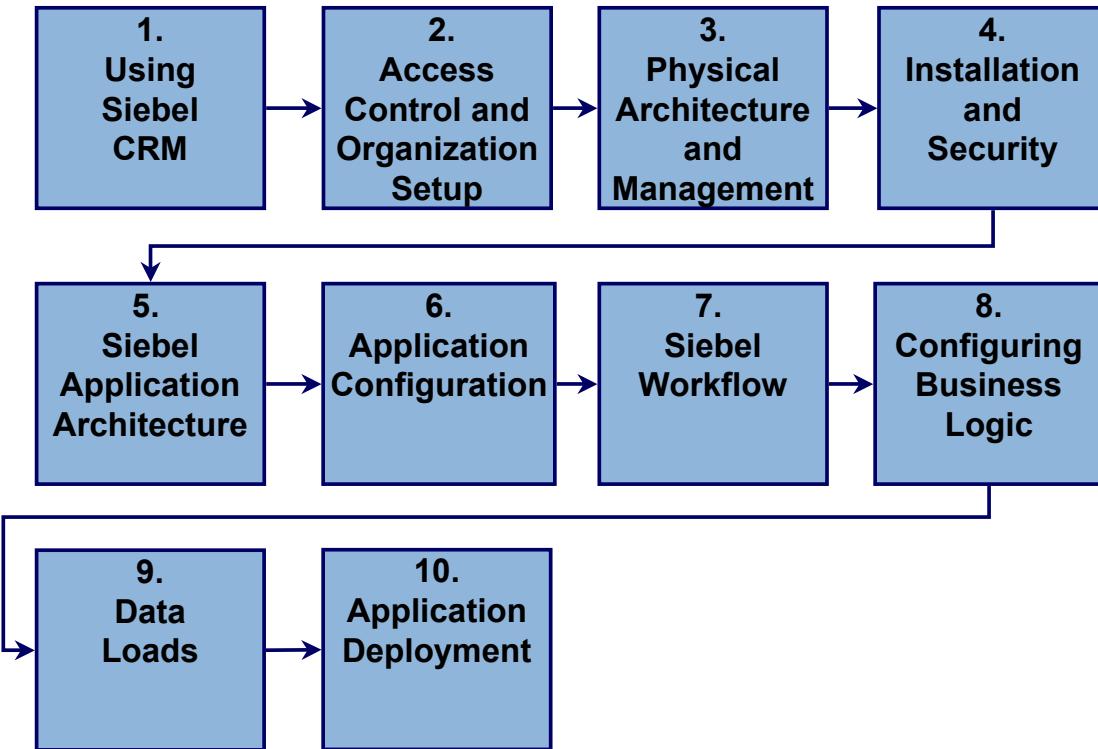
- Student Guide
  - ▶ All slides presented during lecture
  - ▶ Notes that point to Siebel Bookshelf references
- Lab Guide
  - ▶ Hands-on lab exercises and solutions

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10 of 18

## Overview of Course Flow

i



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11 of 18



## Course Agenda

- Using Siebel CRM
  - ▶ 1: Introducing Siebel Applications
  - ▶ 2: Using the Siebel Web Client
  - ▶ 3: Working with Siebel Data
- Access Control and Organization Setup
  - ▶ 4: Responsibilities and Views
  - ▶ 5: Users, Positions, and Organizations
  - ▶ 6: Controlling Access to Customer Data
  - ▶ 7: Catalogs and Master Data
- Physical Architecture and Management
  - ▶ 8: The Siebel Web Architecture
  - ▶ 9: Server Components and Parameters
  - ▶ 10: Server Management
  - ▶ 11: Siebel Client Types

## Course Agenda Continued

**i**

- Installation and Security
  - ▶ 12: Securing Access to the Application
  - ▶ 13: Installing Siebel Applications
- Siebel Application Architecture
  - ▶ 14: Siebel Application Architecture
  - ▶ 15: Using Siebel Tools to Examine Object Definitions
  - ▶ 16: The Siebel Data Model
  - ▶ 17: Siebel Business Components
  - ▶ 18: Siebel Party Business Components
  - ▶ 19: Siebel Business Objects
  - ▶ 20: Configuration Strategy
  - ▶ 21: The Configuration Process



## Course Agenda Continued

- Application Configuration
  - ▶ 22: Managing Object Definitions
  - ▶ 23: Editing and Compiling Object Definitions
  - ▶ 24: UI Layer Configuration: Web Templates
  - ▶ 25: UI Layer Configuration: Applets
  - ▶ 26: UI Layer Configuration: Applications, Screens, and Views
  - ▶ 27: UI Layer Configuration: Drilldowns
  - ▶ 28: Business Layer Configuration: Joins
  - ▶ 29: Business Layer Configuration: Existing Business Components and Fields
  - ▶ 30: Business Layer Configuration: New Business Components and Fields
  - ▶ 31: Business Layer Configuration: Picklists
  - ▶ 32: Configuring Multi-Value Groups
  - ▶ 33: Data Layer Configuration

## Course Agenda Continued

- Siebel Workflow
  - ▶ 34: Siebel Business Services
  - ▶ 35: Building Siebel Workflow Processes
  - ▶ 36: Testing and Deploying Workflow Processes
  - ▶ 37: Executing Workflow Processes
  - ▶ 38: Using Workflow Policies
- Configuring Business Logic
  - ▶ 39: Siebel Task UI
  - ▶ 40: Task UI: Creating a Task
  - ▶ 41: Transient Business Components and Branching
  - ▶ 42: Siebel Business Rules
  - ▶ 43: Creating Business Rules
  - ▶ 44: Introducing Siebel Assignment Manager
  - ▶ 45: Creating Assignment Rules
  - ▶ 46: Tailoring Assignment Manager Behavior



## Course Agenda Continued

- Configuring Business Logic (Continued)
  - ▶ 47: Invoking Siebel Assignment Manager
  - ▶ 48: State Models
- Data Loads
  - ▶ 49: Introducing Enterprise Integration Manager
  - ▶ 50: Creating Data Maps
  - ▶ 51: Running Enterprise Integration Manager
- Application Deployment
  - ▶ 52: Introducing Application Deployment Manager
  - ▶ 53: Deploying Application Customizations



## Summary

i

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





**Siebel 8.0 Essentials**

1

## **Module 1: Introducing Siebel Applications**

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## Module Objectives

- After completing this module you should be able to:
  - ▶ Describe Siebel Customer Relationship Management (CRM) applications and how they are classified
  - ▶ Identify the common business entities found in Siebel CRM applications
- Why you need to know:
  - ▶ You need to be familiar with Siebel applications to understand the context of this course



## Siebel Customer Relationship Management (CRM)

- Enables you to manage interactions with customers, partners, and employees
  - ▶ Typically deployed as a single application with broad functionality
  - ▶ Supports multiple communication channels
    - Web and email
    - Call center
    - Field service
- Uses a single database to:
  - ▶ Allow all users access to the same set of data
    - Example: The correct customer order 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
- Is a packaged application with built-in best practices

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3 of 22

1

### Siebel Bookshelf

Comprehensive documentation on Siebel applications is available in Siebel Bookshelf, which is available in book form and online on the Siebel support Web site. Access to the online version requires a SupportWeb login. References in this course material refer to Siebel Bookshelf titles.



## Siebel CRM Applications

- Are available tailored for:
  - ▶ Different types of customer, partner, or employee interactions and channels (horizontal applications)
  - ▶ Different industries (industry applications)
- Examples:
  - ▶ Horizontal applications
    - Siebel Sales
    - Siebel Call Center
    - Siebel Partner Portal
    - Siebel Remote
  - ▶ Industry applications
    - Siebel Finance
    - Siebel Consumer Goods

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4 of 22

### References

Siebel Bookshelf includes titles on horizontal applications, such as Siebel Field Service Guide, as well as titles for industry applications, such as Siebel Finance Guide.



## Types of Siebel Enterprise Applications

- Employee applications
  - ▶ Are used by internal employees
  - ▶ Examples include:
    - Siebel Call Center
    - Siebel Sales
- Customer and partner applications
  - ▶ Are used by customers and partners
  - ▶ Examples include:
    - Siebel eSales
    - Siebel Partner Portal

1

**Employee Application: Siebel Sales**

- Siebel Sales may be used by a company's sales representatives and managers to manage accounts, sales opportunities, and contacts

The screenshot shows the Siebel Sales Opportunities screen. At the top, there is a menu bar with File, Edit, View, Navigate, Query, Tools, and Help. Below the menu is a toolbar with various icons. A yellow callout box points to the 'Opportunities' button in the toolbar, which is highlighted with a red border. The main area is titled 'Siebel Sales Opportunities screen'. It displays a contact list with columns for Last Name, First Name, Mr./Ms., Work Phone #, Job Title, Email, Account, Site, and Role. The contact list includes entries for Agostini, Conway, Dannemann, and Doeden. The bottom of the screen shows a footer with copyright information and a page number.

Last Name	First Name	Mr./Ms.	Work Phone #	Job Title	Email	Account	Site	Role
Agostini	Rakesh	Mr.	(847) 555-4628	Sr. Business Consult	Rakesh_Agostini@m...	Erickson Retirement	Atlanta, GA	Approver
Conway	Brad	Mr.	(707) 678-9023	Practice Manager	bconway@deloitte.c...	Erickson Retirement	Atlanta, GA	Evaluator
Dannemann	Atul		(312) 555-7894	Database Analyst	Atul_Dannemann@c...	Erickson Retirement	Atlanta, GA	Evaluator
Doeden	Mike		(408) 555-7829	Manager Sales Adm	Mike_Doeden@lsil.c...	Erickson Retirement	Atlanta, GA	Evaluator

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## Employee Application: Siebel Call Center

- Siebel Call Center may be used by a company's telesales and service representatives

**Siebel Call Center service screen**

The screenshot shows the Siebel Call Center service screen. At the top, there is a menu bar with File, Edit, View, Navigate, Query, Tools, and Help. Below the menu is a toolbar with various icons. A yellow callout box points to the 'Service' button in the toolbar, which is highlighted with a red box. The main area displays a grid of 'My Service Requests' with columns for New, SR #, Status, Substatus, Summary, Account, Last Name, Owner, and Priority. One row in the grid is selected and highlighted in yellow. Below the grid, a specific service request (SR # 1-1826242) is shown in a detailed view. The detailed view includes fields for SR #, Work Phone #, Last Name, First Name, Account, Site, Summary, and Description.

New	SR #	Status	Substatus	Summary	Account	Last Name	Owner	Priority
>	1-1826242	Open	Resolved	How do I setup a networked printer on m	Marriott Internatior	Manning	CCHENG	2-High
	1-1856014	Open	Unassigned	Problem with resolution after self-installin	Marriott Internatior	Carlson	CCHENG	3-Mediu
*	1-1862924	Open	Resolved	Anti-virus software failing to update .DA	Marriott Internatior	Carlson	CCHENG	3-Mediu
	1-2170401	Open	Unassigned	Problem with upgrade of CPU	AEP Communicatio		CCHENG	3-Mediu
	1-2222321	Open	Unassigned	How do I install graphics card?	Marriott Internatior	Manning	CCHENG	3-Mediu
*	1-3598124	Open	Unassigned	Problem with my hard drive	Cymer Inc.	Ellis	CCHENG	2-High
	1-5071509	Open	Unassigned	Question on disk problem	Marriott Internatior	Manning	CCHENG	3-Mediu
	1-5071517	Open	Unassigned	Server Failure: PCS 500S needs replacer	Marriott Internatior	Carlson	CCHENG	3-Mediu
	1-5411401	Open	Unassigned	I need help..	3Com	Pennington	CCHENG	3-Mediu
	1-692304	Open	In Process	Customer has a problem with the HP Prinl	Marriott Internatior	Manning	CCHENG	2-High

1-1826242

SR #: 1-1826242      Work Phone #: (408) 477-2006  
Last Name: Manning      First Name: James  
Account: Marriott Internation      Site: HQ

Summary: How do I setup a networked printer on my PCS series computer?  
Description: Please provide documentation for this process. Thanks.

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## Customer Application: Siebel eSales

- May be used by customers to purchase products over the Web
- Includes an interactive product catalog, search and product comparison mechanisms, and online ordering capabilities

The screenshot shows the Siebel Customer Relationship Management interface. At the top, there's a navigation bar with links for Home, Catalog (which is highlighted with a red box), My Account, Help, Contact Us, About Us, and Log Out. Below the navigation bar, the main content area has tabs for Product catalog and Shopping cart. A search bar with a Go button and an Advanced Search link are also present.

In the center, there's a "Welcome Guest Customer" message with a small profile picture of two people shaking hands. To the right, the date is listed as Tuesday, January 09, 2007.

The main content area displays a "Recommended Items" section with three items:

- 11 Mbps Wireless LAN PC Card with XJACK® Antenna** (Tricor - 11 Mbps Wireless LAN PC Card with XJACK® Antenna)
- 24x/10x/24x CD-RW w/8x DVD Combo Drive** (CompMaster - 24x/10x/24x CD-RW w/8x DVD Combo Drive)
- 7200RPM 80GB Retail Kit** (Primex - 7200RPM 80GB Retail Kit)

On the right side of the screen, there's a sidebar with sections for "Last Item Added" (with a note about eAdvisor), "Quick Add" (with fields for Item Name and Item Code), and an "Add Item" button.

At the bottom left, it says "Copyright © 2007, Oracle. All rights reserved." and at the bottom right, it says "8 of 22".



## Partner Application: Siebel Partner Portal

- May be used by a company's partners to communicate, collaborate, and conduct business with a Web-based interface

1000 x TPS Reports

Opportunities

Name: 1000 x TPS Reports

Account:

Site:

Description:

Probability %: 0%

Revenue: \$0.00

Close Date: 1/8/2007

Expected Value: \$0.00

Sales Stage:

Committed:

Organization: Default Organization

Sales Team: SADMIN

Partner Portal opportunities screen

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9 of 22



## Comparison of Siebel CRM Applications

- Siebel functionality is delivered as separate horizontal or vertical applications that:
  - ▶ 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 different configuration and input files
  - ▶ Configuration files are used to specify application parameters
  - ▶ Use Siebel Tools to generate input files that control behavior
- This course will teach you how to modify these files to meet the specific requirements of your business

## Siebel User Interface (UI) Modes

- The Siebel UI is rendered in one of two modes:

High Interactivity Mode

Standard Interactivity Mode

1

## High Interactivity Mode

- Is available for employee applications, supporting highly interactive users
- Uses additional code, such as Active X controls, to provide extra functionality
  - ▶ Drag-and-drop for setting column widths
  - ▶ Explorer-like hierarchy views
  - ▶ Menu bar and tool bars
  - ▶ Saving records by moving off the current line
- Requires Internet Explorer (check documentation for versions)

## Standard Interactivity Mode

- Is available for customer and employee applications
- Designed to be less browser-dependent
  - ▶ Behaves like a typical HTML-based Web application
- Available on a wide variety of browsers (check documentation for supported browsers)

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13 of 22

**Reference**

System Requirements and Supported Platforms



## Common Siebel Application Business Entities

- Siebel applications use common business entities
  - ▶ A business entity is something of business interest in the real world
- Siebel applications refer to these entities as business components
- Examples:
  - ▶ Accounts
  - ▶ Contacts
  - ▶ Opportunities
  - ▶ Service requests
  - ▶ Assets

0/5

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## Common Siebel Business Components

Accounts

Contacts

Opportunities

Service Requests

Assets

1

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15 of 22

## Accounts

- Are businesses external to your company
- Represent a current or potential client, a business partner, or a competitor
- Are associated with a team

The screenshot shows the Siebel Accounts List interface. At the top, there's a navigation bar with icons for Home, Accounts (which is highlighted with a red box), Contacts, Households, Sales Orders, Service, and Assets. Below the navigation bar, the title 'Accounts' is followed by 'Accounts Home' and 'Accounts List'. A toolbar below the title includes 'My Accounts' dropdown, 'Menu', 'New', 'Delete', 'Query', 'Collaborate', and 'Create Team Space'. The main area is a table with columns: Account Name, Site, Main Phone #, Status, and URL. The table lists ten companies with their details. The first company, 'Akamai Technologies, Inc.', is selected, indicated by a blue arrow icon next to its name.

Account Name	Site	Main Phone #	Status	URL
Akamai Technologies, Inc.	Cambridge, MA	(508) 460-8900	Gold	<a href="http://www.akamai.com">www.akamai.com</a>
British American Tobacco	Hamburg, Germany	+490242117465	Silver	<a href="http://www.bat.com/">www.bat.com/</a>
Cap Gemini Ernst & Young	Atlanta, GA	(404) 249-2000	Gold	<a href="http://www.bellsouth.com">www.bellsouth.com</a>
Chase Manhattan Bank	Manhattan, Ny	(212) 622-0726	Platinum	<a href="http://www.chase.com">www.chase.com</a>
Country Companies Services Inc.	Bloomington, IL	(309) 821-3000	Platinum	<a href="http://www.countrylife.com">www.countrylife.com</a>
Danney K. Foundation	Pittsburgh, PA	(800) 578-9515	Gold	<a href="http://www.dkf.com">www.dkf.com</a>
FleetBoston Financial	Framingham, MA	(617) 883-9300	Active	<a href="http://www.fleet.com">www.fleet.com</a>
Harris Corporation	Florida (HQ)	(414) 239-5000	Active	<a href="http://www.harris.com">www.harris.com</a>
Holiday Inn	HQ-Corporate	(707) 234-5506	Active	<a href="http://www.holidayinn.com">www.holidayinn.com</a>
IBM Corporation	Poughkeepsie, NY	(914) 433-9187	Platinum	<a href="http://www.ibm.com">www.ibm.com</a>

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16 of 22

## Contacts

- Are people with whom you do business
- Can be public or marked as personal
- Are associated with a team (public contacts) or a user (personal contacts)

The screenshot shows the Siebel Contacts application interface. At the top, there is a navigation bar with icons for Home, Accounts, Contacts (which is highlighted with a red box), Households, Sales Orders, Service, Assets, and Service Orders. Below the navigation bar, there are two tabs: 'Contacts Home' and 'Contacts List'. The 'Contacts List' tab is selected. The main area displays a grid of contact records with the following columns: Last Name, First Name, Mr./Ms., Work Phone #, Job Title, and Email. The data in the grid is as follows:

Last Name	First Name	Mr./Ms.	Work Phone #	Job Title	Email
Allen	Ross	Ms.	(312) 555-7448	Training Specialist	Ross_Allen@kemper.com
Allen	Ross	Mr.	(312) 555-7448		
Allen	Ross	Mr.	(312) 555-7448		
Brown	Joshua	Mr.	(818) 731-1237 x18	Student	josh@comappeal.com
Carlson	Mike	Mr.	(301) 380-5001	Director, IT Procurement	mcarlson@demohost.siebel.com
Carlson	Troy	Mr.	(301) 380-4532	Customer Service Administrator	tcarlson@marriott.com
Cutting	JoAnn	Ms.	(467) 995-6990	Lawyer	joann876@aol.com
Damone	Victor	Mr.	(408) 373-4332	IT Director	vic.damone@princesscruises.com
Fosters	Julie	Ms.	(415) 345-8832	Senior Director, Communications	jifosters@akamai.com
Gaddam	Mike	Ms.	(416) 555-2703	Associate Director, eBusiness Application	Mike_Gaddam@bell.ca

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17 of 22

## Opportunities

- Are potential revenue-generating events
- Have the following characteristics:
  - ▶ A possible association with an account
  - ▶ A probability of completion
  - ▶ A close date
- Are associated with a team

Opportunity:

The screenshot shows the Siebel Opportunities List interface. At the top, there's a navigation bar with links for Home, Opportunities (which is highlighted with a red box), Accounts, Contacts, Calendar, and Quotes. Below the navigation bar, there are links for Opportunities Home, Opportunities List (which is selected), Charts, and Opportunity Explorer. The main area is titled "My Opportunities" and contains a table with the following data:

Opportunity Name	Account	Revenue	Committed	Team Space	Sales Stage
> Laptops for Kaboom		\$25,000.00			
350 V16 Monitor Units	Genesys Communic	\$340,000.00			02 - Qualification
Performance Servers	State of Florida	\$250,000.00			02 - Qualification
150 PCS Puma Laptop EB units	3Com	\$250,000.00			03 - Closing
Fast Ethernet NIC PCI 10/100 - 2500 unil	Marriott Internati	\$687,500.00	✓		04 - Opportunity
75x PCS Torro Server Pro FL, all options	PlusOne Financial	\$300,000.00	✓		03 - Qualification
500x PCS Chev Desktop Q Options	Altera	\$275,000.00	✓		03 - Qualification
40x ePharma Open	Assurances General	\$200,000.00	✓		04 - Opportunity
505x PCS Puma Laptop CC	CJ Tenney	\$1,500,000.00	✓		06 - Short List
PCS Puma Laptop PS Deployment - Erics	Erickson Retirement	\$220,000.00	✓		09 - Closed/Lost

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18 of 22

## Service Requests

- Are requests from customers or prospects for information or assistance with your products or services
- Have the following characteristics:
  - ▶ A status
  - ▶ A severity level
  - ▶ A priority level
- Are associated with a single owner

The screenshot shows a Siebel application interface titled "Service Requests". The top navigation bar includes links for Home, Accounts, Contacts, Opportunities, Quotes, Sales Orders, and Service. The "Service" link is highlighted with a red box. Below the navigation is a breadcrumb trail: Service Requests Home | Service Requests List | Service Request Charts | Service Requests - 1. The main area displays a table titled "My Service Requests" with the following columns: New, SR #, Status, Summary, Account, Owner, and Priority. The table lists several service requests, each with a yellow background and a green border. The first request is marked with an asterisk (\*). The last request is also marked with an asterisk (\*).

New	SR #	Status	Summary	Account	Owner	Priority
>	*	Open	Splitting territory in Siebel Sales	Art.net	SADMIN	3-Medium
	*	Open	Siebel eAdvisor Issue of Bidabike	Bidabike	SADMIN	4-Low
	*	Closed	Siebel Logistics Manager Issue of BT Whc	BT Wholesale Services and Solution	SADMIN	2-High
	*	Closed	Siebel Web Objects Issue of Appicast	Appicast	SADMIN	2-High
	*	Open	Siebel Field Service Issue of GEHE Group	GEHE Group	SADMIN	3-Medium
	1-1692980	Open	Migration Server Outlook Exchange	Marriott International France	SADMIN	3-Medium
	1-1104406	Open	Workflow Manager terminerar med error	Marriott International - Sverige	SADMIN	3-Medium
	*	Open	Customer promotion for email response	Marriott International HQ	SADMIN	3-Medium
	1-5180109	Open	Laptop is running slowly		SADMIN	3-Medium

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19 of 22

## Assets

- Are instances of purchased products
- Have the following characteristics:
  - ▶ An asset number
  - ▶ A product and part number
  - ▶ A status level

Asset #	Serial #	Product	Installed	Status	
> 1-1293300	1-1293300	PCS Telephony PBX2	12/22/1999 4:00:00 PM	Production	
1-1293400	1-1293400	PCS Chev Desktop ES	11/5/1999 4:00:00 PM		
1-1293401	1-1293401	Monitor - 20" LCD	12/5/1999 4:00:00 PM		
1-1295501	1-1295501	PCS Chev Desktop ES	6/5/2001 5:00:00 PM		
1-1295505	1-1295505	Monitor - 20" LCD	9/5/2001 5:00:00 PM		
1-1295521	1-1295521	Guide - PCS CC Laptop	8/13/2001 5:00:00 PM		
1-1295525	1-1295525	PCS Chev Desktop ES	8/9/2001 5:00:00 PM		
1-1295529	1-1295529	Monitor - 20" LCD	8/16/2001 5:00:00 PM		
1-1295533	1-1295533	Monitor - 20" LCD	8/16/2001 5:00:00 PM		
1-1295537	1-1295537	Guide - PCS CC Laptop	7/16/2001 5:00:00 PM		

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20 of 22



## Module Highlights

- Siebel CRM applications allow you to manage all customer points of contact
- Types of Siebel CRM enterprise applications are:
  - ▶ Employee applications: Siebel Call Center, Siebel Sales, and so on
  - ▶ Customer applications: Siebel eSales, Siebel Partner Portal, and so on
- Common Siebel business components include:
  - ▶ Accounts
  - ▶ Contacts
  - ▶ Opportunities
  - ▶ Service requests
  - ▶ Assets





*Siebel 8.0 Essentials*

## Module 2: Using the Siebel Web Client

2

2

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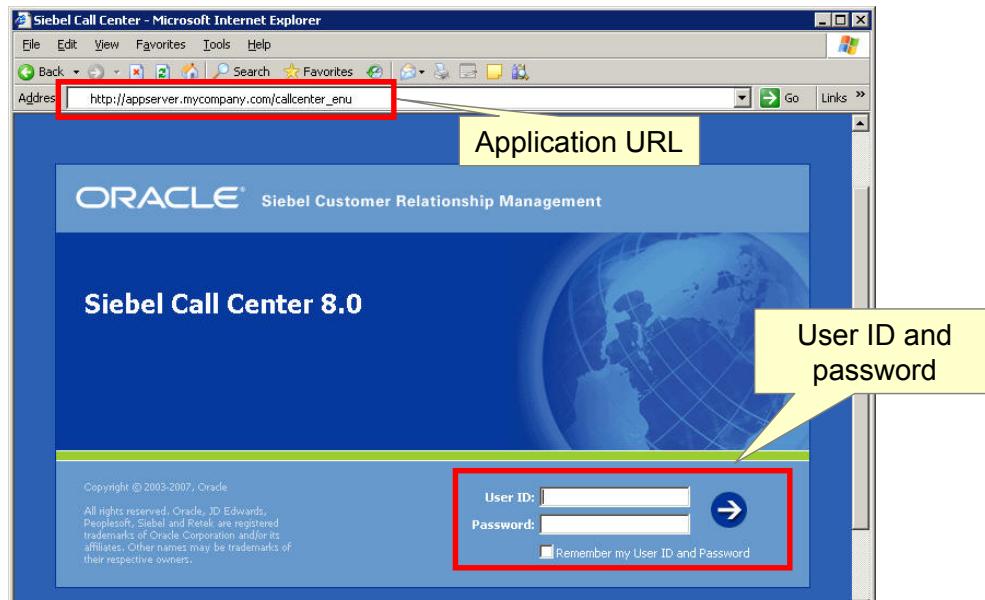
## Module Objectives

- After completing this module you should be able to:
  - ▶ Start and log in to a Siebel application
  - ▶ Navigate screens and views in the application
  - ▶ Identify major user interface (UI) features in a Siebel CRM application
- Why you need to know:
  - ▶ Understanding the UI enables you to effectively use and configure Siebel applications



## Logging In to a Siebel Application

- Start a Siebel application in a Web browser by entering the application's URL
- Log in using assigned user ID and password



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3 of 24

2

Reference

Siebel Fundamentals



## Application URLs

- A Siebel application's URL is formed from :
  - ▶ Application's Web server name
  - ▶ Application name
  - ▶ Suffix identifying the application language
- Examples:
  - ▶ [http://AppServer0.MyCompany.com/callcenter\\_enu](http://AppServer0.MyCompany.com/callcenter_enu)

Web server name: Appserver0.MyCompany.com  
Application name: callcenter (Siebel Call Center)  
Language suffix: \_enu (American English)

- ▶ [http://public.MyCompany.com/esales\\_fra](http://public.MyCompany.com/esales_fra)
- Web server name: public.MyCompany.com  
Application name: esales (Siebel eSales)  
Language suffix: \_fra (French)

## Application Home Page

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- Displayed after log-in to a Siebel application

The screenshot shows the Siebel Application Home Page. At the top, there's a navigation bar with links for File, Edit, View, Navigate, Query, Tools, and Help. Below the navigation bar is a toolbar with icons for Home, Accounts, Contacts, Households, Sales Orders, Service, Assets, and Service Orders. The main content area has a title 'My Homepage' and a welcome message 'Welcome Back Casey Cheng! Today is Monday, January 08, 2007.' A 'My Service Requests' list is displayed, showing several entries with columns for New, SR #, Summary, Account, and Priority. A yellow callout box points to this list with the text 'Personalized data provides direct links to common tasks'. To the right of the list is a 'My Calendar' section showing a Monday agenda from 9:00 AM to 1:00 PM. A red box highlights the 'Edit Layout' button in the top right corner of the calendar area. A yellow callout box points to this button with the text 'Personalize home page by clicking Edit Layout'. The bottom of the page includes a copyright notice 'Copyright © 2007, Oracle. All rights reserved.' and a page number '5 of 24'.

2

## Siebel Application User Interface

- Siebel applications consist of Web pages
- Each page displays Siebel data surrounded by tabs, toolbars and a top-level menu

The screenshot shows a Siebel application window with the following features highlighted:

- Global toolbar:** Located at the top left, it provides quick access to common tasks like File, Edit, View, Navigate, Query, Tools, and Help. A callout box notes: "Global toolbar provides quick access to common tasks".
- Application-level menu:** Located at the top right, it helps with navigation and manipulating data. A callout box notes: "Application-level menu helps navigation and manipulating data".
- Tabs:** At the bottom of the main content area, there are tabs for More Info, Activities, Attachments, and Contacts. The Contacts tab is currently selected, as indicated by a red box and a callout box stating: "Tabs provide easy navigation to related data".

Below the tabs is a table listing contacts:

Mr/Ms	First Name	Last Name	Middle Name	Job Title	Work Phone #	Mobile Phone #	Email	Status
Ms	Regina	Ash	G	President	(650) 555-0000		rash@dunandbra	Active
Mr.	Bill	Chang	J	Treasurer	(650) 555-0000		bchang@dunandbra	Reseller

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## Help Menu: Online Help and Technical Support

- The application-level Help menu offers Online Help
  - ▶ Documents common end-user tasks
- Technical Support... in the Help menu identifies useful technical information
  - ▶ Includes current user ID and support contact information

The screenshot illustrates the integration of Oracle's Siebel Web Client with its own help system. On the left, a screenshot of the Siebel Web Client interface shows the 'Help' menu open. The 'Technical Support...' option is highlighted with a red box and has a red arrow pointing from it to a second screenshot on the right. The second screenshot is a 'Technical Support - Microsoft Internet Explorer' window. It displays 'System information' and 'Support information' sections. In the 'System information' section, the 'User ID' field is highlighted with a red box and contains the value 'SADMIN'. The 'Support information' section includes fields for 'Phone #', 'Fax #', 'URL', and two 'Alt.' fields, all of which are currently set to 'None'. At the bottom right of the dialog is an 'OK' button.

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7 of 24



## Global Toolbar: iHelp and Reports

- Access 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 screen you are working in



File Edit View Navigate Query Tools Help

Opportunity:1000 x TPS Reports > Account:

Home Accounts Contacts Households Sales Orders Service Assets

Accounts Home | Accounts List

Gorman Engineering

Account Name: \* Gorman Engineering Site: HQ-San Francisco-8048 Account Team: VSILVER

Address: 492 Koller St Address Line 2: Main Phone #: (415) 555-0000

City: San Francisco State: CA Main Fax #:

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8 of 24



## Global Toolbar: Site Map

- Access a list of all application areas available to the user

**Site Map button**

The screenshot shows the Siebel Web Client interface. At the top is the Global Toolbar with various icons and a menu bar. Below it is the main content area. In the center, there is a list of application areas under the heading 'Site Map'. A red box highlights the 'Forecasts' item in this list. A yellow callout box points to the 'Forecasts' item with the text 'Site Map lists application areas'. To the right of the application area list is a table with columns: Forecast Series, Date, Status, Updated, Revenue, and Best Case. A red box highlights the 'Forecasts' row in this table. A yellow callout box points to the 'Forecasts' row with the text 'Drilling down on an area shows detailed navigation'. On the far right, there is a detailed navigation tree for 'Forecasts' under the 'Forecasts' node. A red box highlights the 'My Forecasts' node in this tree.

Activities  
Administration - Application  
Administration - Briefings  
Administration - Data Quality  
Administration - Data  
Administration - Forecast  
Administration - Product  
Administration - Service  
Administration - SmartScript  
Administration - Training  
Agreements  
Alerts  
Answers  
Assets  
Briefings  
Calendar

Entitlements  
Events  
Expense Reports  
Finance  
**Forecasts**  
Fulfillment  
HelpDesk  
Home  
Households  
Human Resources  
IT  
Inbox  
Incentive Compensation Quotas  
Incentive Compensation Sales Crediting  
Incentive Compensation Sales  
Hierarchies

Products  
Projects  
Proposals  
Quality  
Quotes  
Reception  
References  
Resolution  
Documents  
Responses  
Revenues  
Sales Orders  
Sales Quotas  
Sales  
Service Analytics  
Service Orders  
Service Requests

Forecast Series	Date	Status	Updated	Revenue	Best Case
TSMYTHE Quarterly Sales Forecast	5/30/2002 9:15:00 AM	Active	5/30/2002 9:15:00 AM	2,470,000.00	2,470,000.00
TSMYTHE Quarterly Sales Forecast	5/30/2002 9:15:00 AM	Active	5/30/2002 9:15:00 AM	2,221,704.00	2,221,704.00
TSMYTHE Quarterly Sales Forecast	5/30/2002 9:15:00 AM	Active	5/30/2002 9:15:00 AM	2,420,599.00	2,420,599.00
TSMYTHE Quarterly Sales Forecast	5/30/2002 9:15:00 AM	Active	5/30/2002 9:15:00 AM	2,396,393.00	2,396,393.00
TSMYTHE Quarterly Sales Forecast With Details	4/23/2002	Active	5/30/2002 9:15:00 AM		

**Forecasts**

- Forecasts Analysis List
  - My Forecast Analysis
    - Chart
    - List
- Forecasts List
  - Details
    - Chart
    - List
    - Spreadsheet
  - Summary
    - Chart
    - List
    - Tree

**My Forecasts**

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9 of 24

## Screens

- Represent groups of related data for a functional business area, such as accounts, contacts, or opportunities

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10 of 24

### Screen Tabs

The screen tabs that are visible are typically a subset of those available from the Site Map.



## Screen Home Pages

- Some screens have home pages that provide quick access to common end-user tasks and data

**Frequently Viewed Opportunities**

- My Opportunities
- Forecasted Opportunities
- All Opportunities
- New Leads

**Recent Records**

- 1000 x TPS Reports

**iHelp**

- Assign Opportunity to Partner Company
- Convert Opportunity to Quote
- Create a New Opportunity
- Create a Sales Activity Plan

**Add**

Opportunity:\*

Account:

Revenue:

Close Date:\*

Contact:

Add & Go

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11 of 24

2

## Navigating

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- Click the different UI elements to navigate to different data

The screenshot shows the Siebel Web Client interface with several UI elements highlighted:

- Screen tabs:** Located at the top of the browser window.
- Link bar:** A horizontal bar below the screen tabs containing links like More Info, Activities, Attachments, Contacts, Enterprise Selling Process, Notes, Opportunities, Revenues, Service Requests, Payment Profile, Orders, and Quotes.
- View tabs:** A horizontal bar above the data grid containing links like Add, New, Delete, and Query.
- Row indicator:** A small box pointing to the row number (e.g., > Mr. Todd James) in the data grid.
- Selected record:** A callout pointing to the selected record in the grid, which is Mr. Todd James.

**Data Grid Data:**

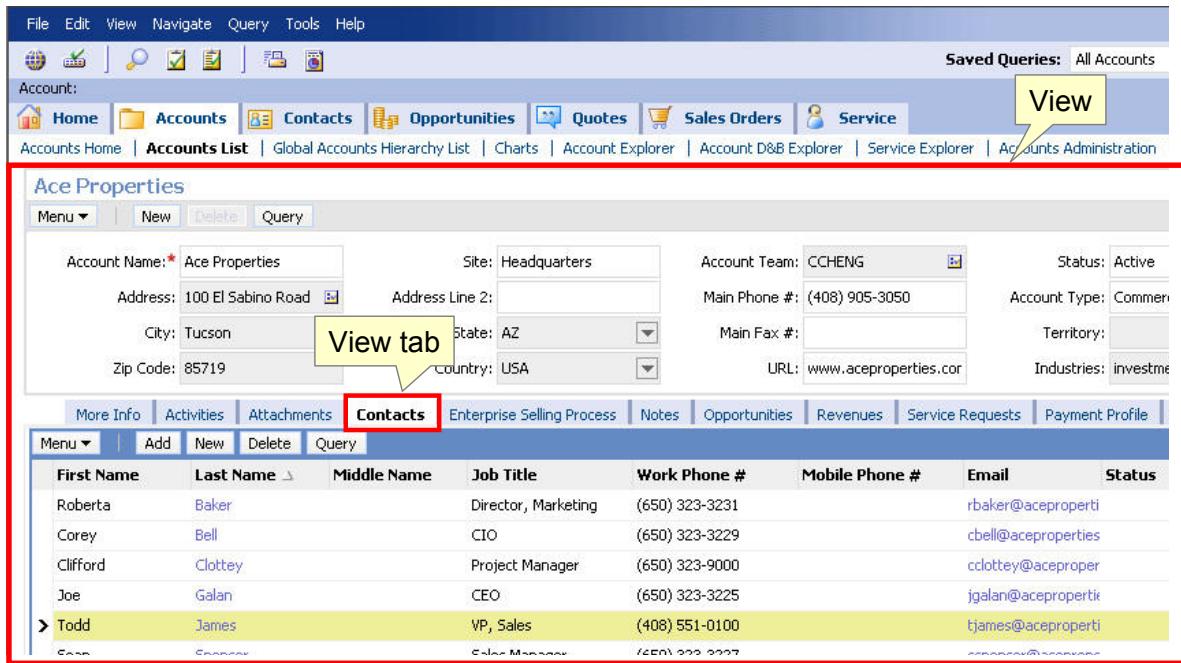
Mr/Ms	First Name	Last Name	Middle Name	Job Title	Work Phone #	Mobile Phone #	Email	Status
Ms.	Roberta	Baker		Director, Marketing	(650) 323-3231			
Mr.	Corey	Bell		CIO	(650) 323-3229			
Mr.	Clifford	Clottey		Project Manager	(650) 323-9000		cclottey@aceproper	
Mr.	Joe	Galan		CEO	(650) 323-3225		jgalan@aceproper	
> Mr.	Todd	James		VP, Sales	(408) 551-0100		tjames@aceproper	
	Sean	Spencer		Sales Manager	(650) 323-3227		sspencer@aceproper	
	Jessie	Torre		Director, Sales	(650) 323-3228		jtorre@aceproper	
	James	Williams		VP, Marketing	(650) 323-3229		bwilliams@aceproper	

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## Views

- A view consists of one or more applets displaying records



The screenshot shows the Siebel Web Client interface with the following details:

- Header:** File, Edit, View, Navigate, Query, Tools, Help.
- Saved Queries:** All Accounts.
- Toolbar:** Home, Accounts, Contacts, Opportunities, Quotes, Sales Orders, Service.
- Sub-navigation:** Accounts List, Global Accounts Hierarchy List, Charts, Account Explorer, Account D&B Explorer, Service Explorer, Accounts Administration.
- Current View:** Ace Properties.
- Form Fields:** Account Name: Ace Properties, Site: Headquarters, Account Team: CCHENG, Status: Active, Address: 100 El Sabino Road, City: Tucson, Zip Code: 85719, Main Phone #: (408) 905-3050, Main Fax #: (408) 905-3050, URL: www.aceproperties.com, Account Type: Commercial, Territory: , Country: USA, Industries: Investment.
- Tab Bar:** More Info, Activities, Attachments, **Contacts**, Enterprise Selling Process, Notes, Opportunities, Revenues, Service Requests, Payment Profile.
- Contact List:** A table showing contacts for the account, with columns: First Name, Last Name, Middle Name, Job Title, Work Phone #, Mobile Phone #, Email, Status. The contact "Todd James" is highlighted in yellow.

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13 of 24

2

## Drop-Down Menu Screen and View Navigation

- Access additional tabs and links using drop-down arrows
  - ▶ Available if needed for screen tabs, link bar, and view tabs

The screenshot shows the Siebel Web Client interface. At the top, there's a menu bar with File, Edit, View, Navigate, Query, Tools, and Help. Below the menu is a toolbar with various icons. The main title is 'Account:ASA Consultores > Account'. The navigation bar includes Home, Accounts, Contacts, Opportunities, Quotes, Sales Orders, Service, Calendar, Forecasts, and a dropdown menu. The dropdown menu is open, showing 'Global Accounts Administration' and 'Portfolio Management Process'. The main content area is titled 'ASA Consultores' and displays account details for 'ASA Consultores'. Below this is a contact list table:

Mr./Ms.	First Name	Last Name	Middle Name	Job Title	Work Phone #	Mobile Phone #	Email
Mr.	Carlos	Pelaez	Alberto	Director de Servicio al Cl	+3491 555 3285		cpelaez@eurocable
Ms.	Mario	Pinzon	Fernando	Vicepresidente de Marke	+3491 555 4892		mpinzon@asa.com.

At the bottom of the screen, there's a red footer bar with the text 'Copyright © 2007, Oracle. All rights reserved.' and '14 of 24'.

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## Hyperlinks

- Drill down on a hyperlink to see more information

The screenshot illustrates the use of hyperlinks in the Siebel Web Client. On the left, the 'Accounts List' view shows a list of accounts. An arrow points from the 'AMCO Communications' row to the right, where the 'AMCO Communications' account detail page is displayed. This detail page includes fields for Account Name, Site, Address, City, State, Zip Code, and Country, along with tabs for More Info, Activities, Attachments, Contacts, Enterprise Selling Process, and Notes.

**Left Panel (Accounts List):**

Account Name	Site
AMCO Communications	Chicago, IL
Acer America, Inc.	San Jose, Ca
Acer Sales	Clayton
Aegis	Warehouse
Air Fra	France

**Right Panel (AMCO Communications Detail View):**

Account Name:	AMCO Communications	Site:	Chicago, IL
Address:	171 W Randolph St	Address Line 2:	
City:	Chicago	State:	IL
Zip Code:	60601	Country:	USA

**Annotations:**

- A yellow callout box with the text "Clicking account hyperlink..." points to the "AMCO Communications" row in the list.
- A yellow callout box with the text "...navigates you to the Account Detail - Contacts view" points to the detail view on the right.

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15 of 24

2

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## List Applets and Form Applets

- Views are made up of one or more applets
  - ▶ List applet displays records in rows
  - ▶ Form applet displays a single record in a two-dimensional layout

The screenshot shows the Siebel Web Client interface. At the top, there's a navigation bar with links like Home, Accounts, Contacts, Households, Sales Orders, Service, Assets, and Service Orders. Below the navigation bar is a toolbar with buttons for My Accounts, Menu, New, Delete, Query, Collaborate, and Create Team Space. The main area is divided into two sections: a 'List Applet' (grid view) and a 'Form Applet' (detail view). In the List Applet, several account records are listed, including MetLife, OCBC, Pitney Bowes, Tycion.com (which is highlighted with a yellow box and labeled 'Selected record'), and Universal City Studios Inc. In the Form Applet, detailed information for the selected record 'Tycion.com' is shown, including fields for Account Name, Site, Account Team, Status, Address, Address Line 2, Main Phone #, Main Fax #, Account Type, and Territory. A red bracket on the right side groups the List Applet (grid) and the Form Applet (detail view for Tycion.com). Callouts point to the List Applet and the Form Applet.

Account Name	Site	Main Phone #	Status	URL	DUNS #
MetLife (Metropolitan Life Insura	New York, NY	(201) 388-5000	Gold	www.metlife.com	
OCBC	Singapore	(852) 251-0606 x1	Inactive	www.ocbc.com	686146416
Pitney Bowes	Stuttgart, Germany/Cu	+4907111170	Current Customer	www.daimlerbenz.com/ir	498999044
<b>Tycion.com</b>	San Jose, CA	(408) 903-2000	Contract Pending	www.tycion.com	
Universal City Studios Inc	Universal City,CA	(515) 621-4000	Active		
	Leeds, United Kingdom	+4422785623	Active		

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16 of 24



## Navigating List Applets and Form Applets

- Use the Menu button or scroll bars and arrows

The screenshot shows the Siebel Web Client interface for managing accounts. At the top, there's a navigation bar with links like Home, Accounts, Contacts, Opportunities, Quotes, Sales Orders, Service, Calendar, Service Orders, Forecasts, and Inbox. Below this is a breadcrumb trail: Accounts Home > Accounts List. The main area displays a list of accounts with columns for Account Name, URL, DUNS #, and Team Space. A context menu is open over the first account in the list, with options like Undo Record, Delete Record, New Record, Copy Record, Save Record, etc. Another context menu is shown over a specific account record, with options like Import..., Export..., New Order, New Quote, Update External System, Make Available Offline, and Make Unavailable Offline. Callouts provide additional details: 'Standard applet buttons' points to the menu bar; 'Right-click for context menu' points to a context menu; 'Form applet navigation arrows' points to a navigation arrow; and 'Applet-specific menu items' points to a specific menu item.

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17 of 24

2



## Freezing List Columns

- Freeze position in list columns
  - ▶ Freeze columns by double-clicking column headers within list applets
    - Enhances ability to work effectively with lists that contain many columns of data
  - ▶ Drag and drop columns in and out of the frozen area

Account Name	Main Phone #	Status	URL	DUNS #	Te...
Basin		Active			
Bayer	100	Inactive	www.bayer-ag.de	690593553	
Berkeley	00	Active			
Berkeley	80	Active			
Berkeley	45	Active			
Big Box Bikes		Active			
Black Diamond Unified School District	(925) 756-3000	Active	www.j...		
Black Diamond Unified School District	(925) 756-3000	Active	www.j...		
Bonanza	(415) 368-7700	Active			
Butler Informatics Consulting		Active			

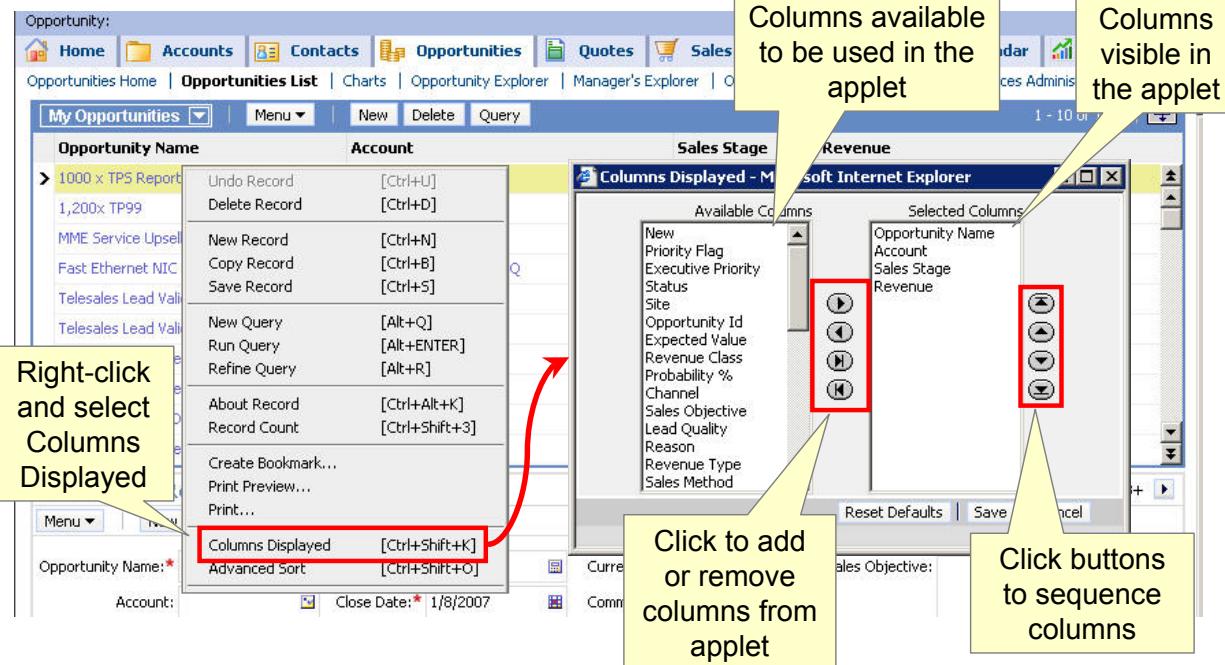
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18 of 24



## Changing Columns Displayed

- Click the **Menu** button, or right-click and select **Columns Displayed**



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19 of 24

2

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## Displaying More Records

- Click the Show More button in the top-right corner of a list applet to toggle display of more records

Account:

Home Accounts Contacts Households Sales Orders Service Accounts Home | Accounts List

My Accounts Menu New Delete Query Collaborate Create Team Space 1 - 10 of 27+ 

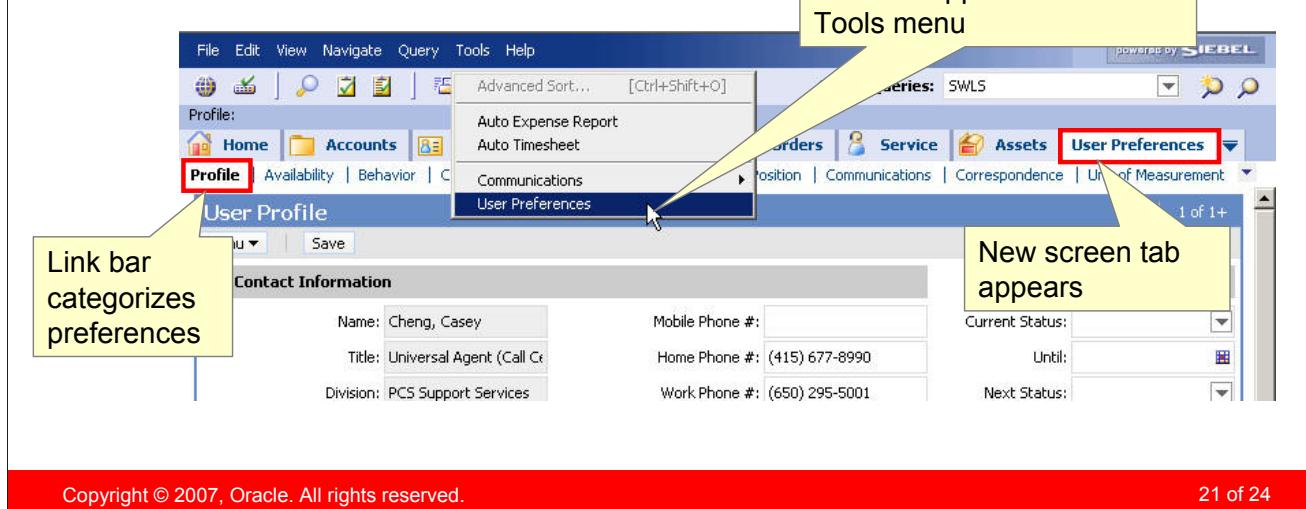
Account Name	Site	Main Phone #	Status	URL	DUNS #
Akamai Technologies, In	Cambridge, MA	(508) 460-8900	Gold	www.akamai.com	948175534
Andrews Manufacturing	Fresno	(649) 700-0000	Active	www.andrewsmanuf.co	
British American Tobacco	Hamburg, Germany	+490242117465	Silver	www.bat.com/	315000554
Cap Gemini Ernst & Your	Atlanta, GA	(404) 249-2000	Gold	www.bellsouth.com	
Caterpillar	Chicago	(847) 555-1000	Active	www.cat.com	
Chase Manhattan Bank	Manhattan, Ny	(212) 622-0726	Platinum	www.chase.com	1530
Country Companies Serv	Bloomington, Il	(309) 821-3000	Platinum	www.countrylife.com	088502997
Cymer Inc.	San Francisco	(415) 278-9667	Active	www.cymer.com	
Danney K. Foundation	Pittsburgh, PA	(800) 578-9515	Gold	www.dkf.com	
FleetBoston Financial	Framingham, MA	(617) 883-9300	Active	www.fleet.com	122557143
Harris Corporation	Florida (HQ)	(414) 239-5000	Active	www.harris.com	
Holiday Inn	HQ-Corporate	(707) 234-5506	Active	www.holidayinn.com	
IBM Corporation	Poughkeepsie, NY	(914) 433-9187	Platinum	www.ibm.com	616769907
Informix Corporation	Menlo Park, CA	(650) 741-1500	Silver	www.informix.com	
Knoll Pharmaceutical Co	Edison, NJ	(973) 426-2600	Current Customer	www.knollph.com	150582492
LSI Logic Corporation	Milpitas, CA	(408) 433-8000	Active	www.lsilogic.com	012444253
Merck & Co Inc	Lansdale, PA	(610) 458-4900	Active	www.merck.com	112493155

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## Setting User Preferences

- Allows users to set individual preferences for some application features
  - ▶ Set time zone preferences
  - ▶ Set a startup view
  - ▶ Change default spell check options
  - ▶ Customize aspects of the calendar





## Module Highlights

- A Siebel application consists of Web pages that display data
- A screen is a grouping of views in a major application functional area
- A view consists of one or more applets as well as links and tabs used to navigate within the view
- A list applet displays multiple records in table form
- A form applet displays a single record



## Lab

- In the lab you will:
  - ▶ Practice navigating in Siebel Call Center

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23 of 24



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## Module 3: Working With Siebel Data

3

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## Module Objectives

- After completing this module you should be able to:
  - ▶ Create, modify, and delete records
  - ▶ Query for records in a Siebel CRM application
- Why you need to know:
  - ▶ Knowing these skills is important for understanding and configuring Siebel applications

0/5



## Working with Data in the Siebel User Interface (UI)

Creating Data

Modifying and Saving Data

Using Picklists and Multi-Value Groups

Sorting Data

Deleting Data

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3 of 28



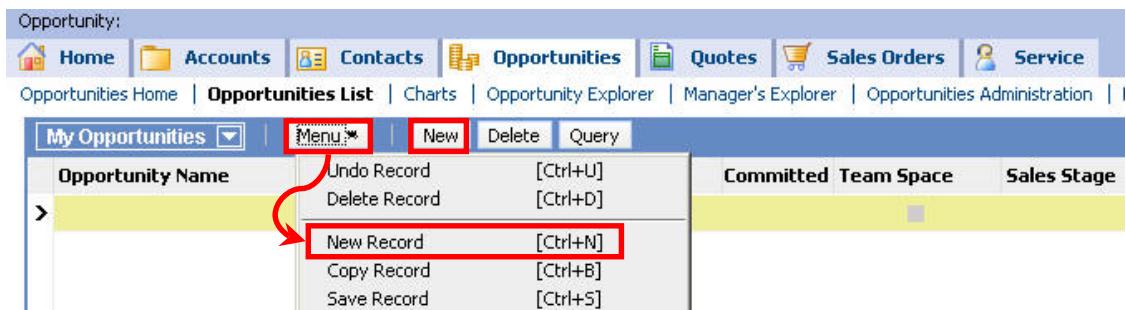
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## Creating Data

- Select Menu > New Record or click the **New** button to create a new record



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4 of 28

## Creating Data continued

- Enter data in list or form applet
- Some fields are required:
  - ▶ Marked with a red asterisk in a form applet
  - ▶ Default value may be provided automatically

The image shows a Siebel form applet for creating opportunities. The form has two columns of fields. The left column includes 'Opportunity Name:' with a red asterisk, 'Account:', 'Sales Team:' (set to 'SADMIN'), and 'Territories:'. The right column includes 'Revenue:' (\$0.00), 'Close Date:' (1/7/2007), 'Sales Stage:', 'Probability %:' (0%), 'Currency:' (USD), 'Committed:' (unchecked), 'Lead Quality:', and 'Organization:' (Default Organization). Two callout boxes highlight specific fields: one points to 'Opportunity Name:' with the text 'Required field indicated by red asterisk'; another points to 'Revenue:' with the text 'Required field populated with default value'.

## Modifying and Saving Data

- Modify data
  - ▶ Select field in the list or form and change it
- Save data implicitly
  - ▶ Step off the record in a list or a form to commit it to the database
  - ▶ Available in High Interactivity interface
- Save data explicitly
  - ▶ Click **Menu** and select **Save Record**
  - ▶ Keyboard: CTRL+S

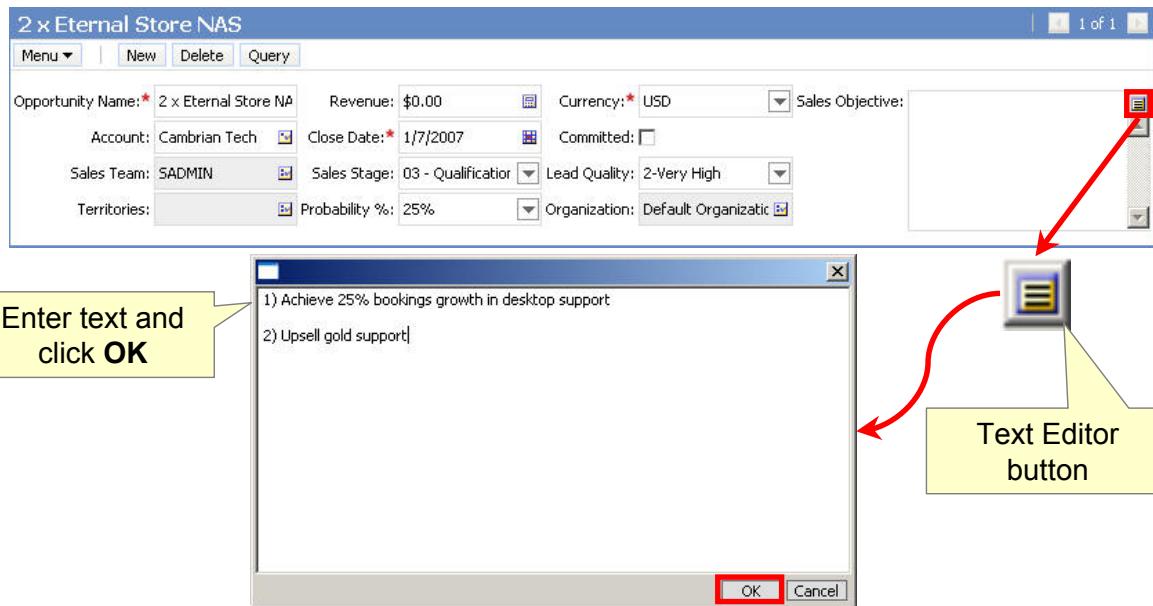


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6 of 28

## Text Editor

- Is an editable text area used to create, edit, or view large amounts of text
- Is accessed by clicking the Text Editor button in the top-right corner of a text field



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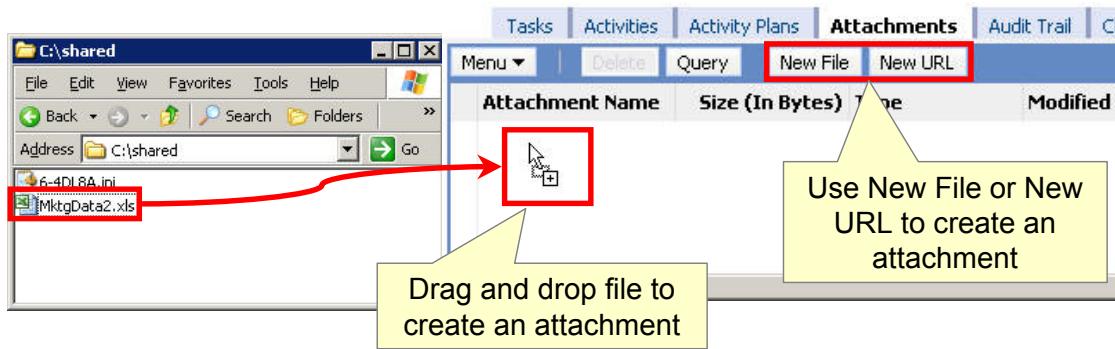
7 of 28



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## Attachments

- Are files created in other applications that can be associated to records in Siebel applications
- Can be related to records wherever the Attachments view is available within a screen
  - ▶ Drag and drop a file into the Attachments list view, or
  - ▶ Use the New File or New URL button



## Using Picklists

- Picklists allow user to select a field value from a list
- Two types of picklist:
  - ▶ Static: User selects a value from a fixed drop-down list
  - ▶ Dynamic: User selects a value from list of changing values
    - Examples: Accounts, Opportunities, Contacts

Opportunity Name	Account	Sales Stage	Revenue
My New Opportunity	State of Florida	02 - Qualification	0.00
1,200x TP99	State of Florida	01 - Prospecting	0.00
1010x PCS Chev Desktop ES 1-1A6Z9	Bidabike	02 - Qualification	0.00
		03 - Closing	0.00
		04 - Lost	0.00

Opportunity Name	Account	Sales Stage	Revenue
My New Opportunity	Big Box Bikes	02 - Qualification	0.00

Pick Account - Microsoft Internet Explorer

Account	Site	Status
Big Box Bikes		Active
Banco Mediterraneo	Barcelona, España	Active
Berkeley Asset Management	Berkeley	Active

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9 of 28

### Constrained vs. Unconstrained Picklists

A picklist may be constrained, only allowing users to enter values that appear in the drop-down list or pick applet, or unconstrained, where the user is free to add any value.



3/5

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## Using Multi-Value Groups

- Multi-value groups (MVGs) assign one or more values to a field in a record
- Only the primary value will be displayed in a list or form

The screenshot illustrates the use of Multi-Value Groups (MVGs) in Siebel. At the top, a form shows fields for Account Team (SADMIN), Main Phone #, Main Fax #, and URL. A red box highlights the 'MVG Select button' (a small icon with a square and a circle) next to the Account Team field. A yellow callout bubble points to it with the text 'Associate members to the account team'. A large red arrow points from this callout to a 'Team Members - Microsoft Internet Explorer' window below.

**Team Members - Microsoft Internet Explorer**

This window displays two tables: 'Available' and 'Selected'.

**Available:**

Last Name	First Name	User ID	Position	Division
Reed	Shawne	SREED	Active Systems Part	
Allen	Matt	MALLEN	Assistant, Marketing	
Master	Daniel	DMASTER	Assistant, Office Ser	
Abboline	Glen	GABBO	Associate Consultant	
Aves	Terry	TAVES	Associate Marketing	
Douglas	Charles	CDOUGLASS	Asyrex Delegated A	

**Selected:**

Primary	Priority	User ID
SREED		
GABBO		
TAVES		
SADMIN		

Buttons between the tables include 'Add >', '< Remove', and '<< Remove All'. A yellow callout bubble labeled 'Primary' points to the checked checkbox next to SADMIN in the Selected table.

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10 of 28

4/5

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## Sorting Data

- Click a column header to sort data in ascending or descending order

Click the column header for ascending (A – Z) or descending (Z – A) order

Account Name	Site	Main Phone #	Status
British American Tobacco (Sortable)	Hamburg, Germany	+490242117465	Silver
Cap Gemini Ernst & Young	Atlanta, GA	(404) 249-2000	Gold
Chase Manhattan Bank	Manhattan, Ny	(212) 622-0726	Platinum
Country Companies Services Inc	Bloomington, IL	(309) 821-3000	Platinum
Cymer Inc.	San Francisco	(415) 278-9667	Active
Danney K. Foundation	Pittsburgh, PA	(800) 578-9515	Gold
FleetBoston Financial	Framingham, MA	(617) 883-9300	Active
Harris Corporation	Florida (HQ)	(414) 239-5000	Active
Holiday Inn	HQ-Corporate	(707) 234-5506	Active
IBM Corporation	Poughkeepsie, NY	(914) 433-9187	Platinum

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## Sorting Data Continued

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

The screenshot shows the Siebel Accounts List interface. On the left, there's a sidebar with account names like Akamai Technologies, Andrews Manufacturing, British American Tobacco, etc. The main area displays a table with columns: Status, URL, and D. A yellow callout box points to the table with the text "Select sort columns and order". On the right, a "Sort Order - Microsoft Internet Explorer" dialog box is open, showing three levels of sorting: "Sort By" (Status), "Then By" (Region), and "Then By" (Account Name). An arrow points from the "Advanced Sort" menu option in the Siebel interface to this dialog box.

Status	URL	D
Gold	www.akamai.com	9
Active	www.andrewsmanuf.co	
Silver	www.bat.com/	3
Gold	www.bellsouth.com	
Active	www.cat.com	
Platinum	www.chase.com	1!
Platinum		
Active		
Gold		
Active		

**Sort Order - Microsoft Internet Explorer**

**Sort By:** Status (Ascending)

**Then By:** Region (Ascending)

**Then By:** Account Name (Ascending)

OK Cancel

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12 of 28

5/5

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## Deleting Data

- Delete a record by:
  - ▶ Select Menu > Delete Record
  - ▶ Click Delete button
  - ▶ CTRL+D
- Some records may be read-only



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13 of 28

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## Querying for Data in the Siebel UI

Running and Executing a Query

Using the Query Assistant

Querying an MVG Field

Refining a Query

Saving a Query

Executing Predefined and Saved Queries

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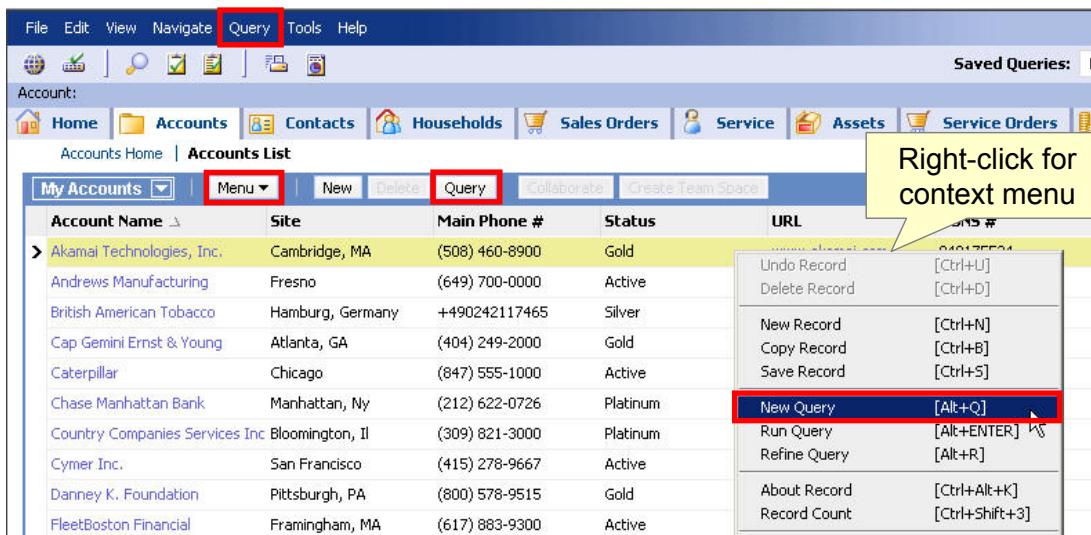
14 of 28

1/6

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## Running and Executing a Query

- Query for records inline within a form or list applet using one of the following methods:
  - ▶ Query button on an applet
  - ▶ Query from applet-level and application-level menus
  - ▶ Run Query item in context menu (accessed by right-click)



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15 of 28



## Wildcards

- Wildcards can be used 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



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16 of 28

### Default Query Behavior

Default behavior for queries in list and form applets is to insert a trailing \*. Example: A query for “Ma”, without an asterisk, would match Madrid.

## Query Operators

- Relational operators can be used on numeric or date fields
  - ▶ < (less than)
  - ▶ > (greater than)
  - ▶ = (equal to)
  - ▶ <= (less than or equal to)
  - ▶ >= (greater than or equal to)
- <> (not equal to) can be used on all fields
- Example:
  - ▶ Find dates on or after 1/1/2006
    - Date field in query is set to: >= 1/1/2006

Name	Quote #	Revision	Created	Account	Last Name
> <Case Required>	<Case Required>		>=1/1/2006	<Case Required>	<Case Required>

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17 of 28



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## Query Operators Continued

- OR allows match on any one of multiple values for a field
- AND allows match on all of multiple values for a field
- Other operators include
  - ▶ NOT
  - ▶ “ ”
  - ▶ IS NULL
  - ▶ IS NOT NULL
- Examples:
  - ▶ Find service requests with no description entered
    - Use IS NULL in Description field of service request
  - ▶ Find dates on or between 1/1/2006 and 1/7/2006
    - In date field of query:  $>=1/1/2006 \text{ AND } <=1/7/2006$

Name	Quote #	Revision	Created	Account
> <Case Required>	<Case Required>		>=1/1/2006 AND <=7/1/2006	<Case Required>

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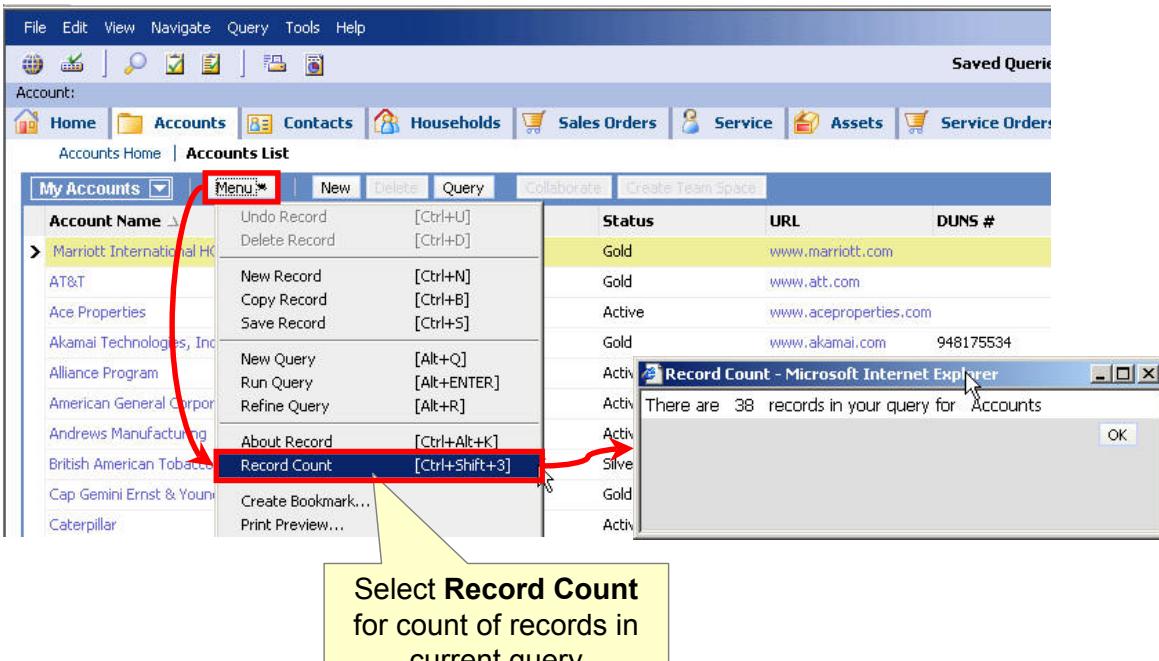
18 of 28

1/6

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## Record Count

- Provides the total number of matching records in the query



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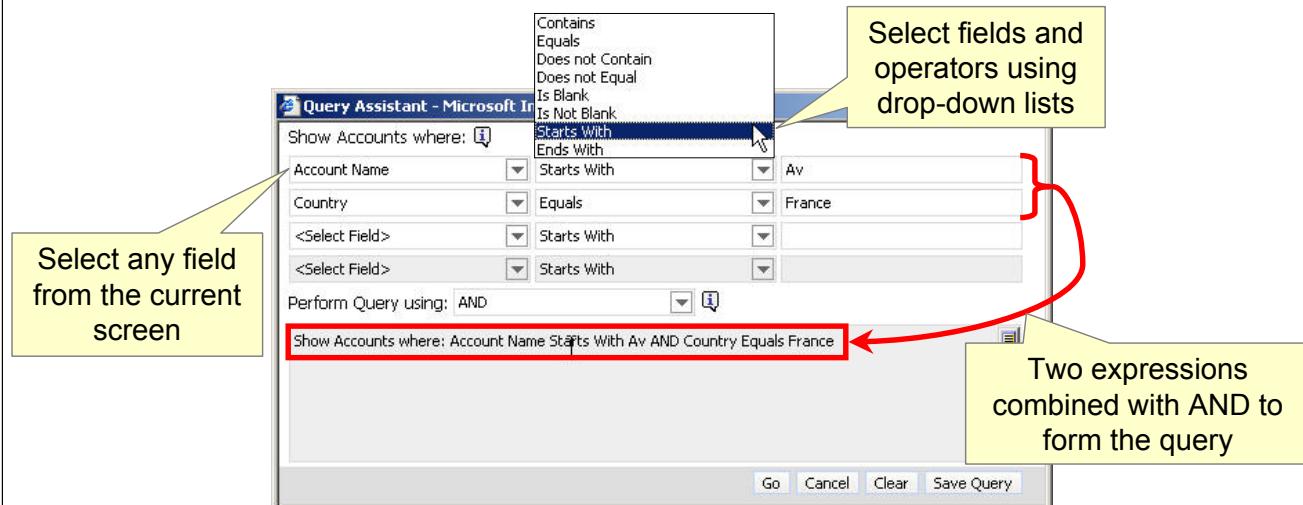
19 of 28

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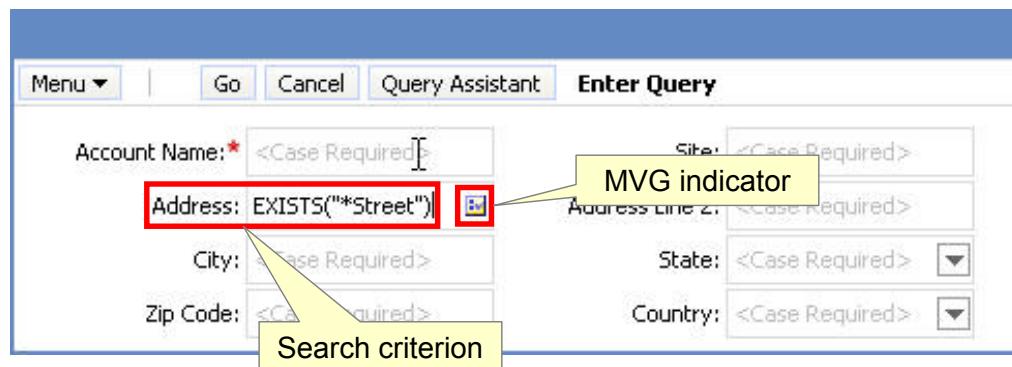
## Using the Query Assistant

- Provides a simplified way for users to execute queries from anywhere in a Siebel application
  - ▶ Guides users through creating a query
  - ▶ Users do not have to be familiar with query syntax or operators
- Click Query Assistant button after clicking Query in a form or list



## Querying an MVG Field

- Use EXISTS() to search for matches in multi-value groups (MVGs)
  - ▶ Only way to query all child records in an MVG
  - ▶ Example: Searching for the string “\*Street” in the address of an account
    - An account can have multiple addresses
    - Query matches all accounts with one or more addresses ending with the sub-string “Street”



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21 of 28

**Queries Using Drop-Down Lists** A related issue involves queries on a field whose values are populated using a drop-down list. Best practice is to enter the value to be queried using the drop-down list, rather than typing this value.

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## Querying an MVG Field Continued

- Search results show records where at least one value in an MVG matches the search criteria
  - ▶ Example:
    - Search results include accounts with string “\*Street” in at least one address

The screenshot illustrates the Siebel interface for querying an MVG field. At the top, the 'Accounts List' page shows a grid of accounts. A yellow callout box points to the 'Ace Properties' account, which is highlighted in yellow. Another yellow callout box to the right states: "These accounts all have addresses that match the query". Below this, a detailed view of the 'Ace Properties' record is shown. A red arrow points from the 'Address' field in the record detail to a separate window titled 'Account Addresses - Microsoft Internet Explorer'. This window lists several address entries, with the 'Address Line 1' column containing multiple entries that include the string 'Street'.

Primary	Address Line 1	Address
✓	100 El Sabino Road	
	15 Brattle Street	Suite 200
	2300 NE 8th Street	Suite 150
	675 North Firs Street	Suite 700

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22 of 28

4/6

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## Refining a Query

- Use Refine Query to modify an existing query

The screenshot illustrates the process of refining a query in Siebel:

- 1. Select Refine Query**: A callout points to the "Refine Query" option in the context menu of the Siebel interface.
- 2. Enter additional or modified criteria**: A callout points to the search criteria entry fields. The "Account Name" field contains "g" and the "Site" field contains "Ch\*". A note indicates that case is required for the site criterion.
- 3. Query results reflect original and modified criteria**: A callout points to the results table, which shows a single record: Gabriel Communications, Site: Chesterfield, MO, Main Phone #: (800) 477-5148, Status: Active.

Original criterion: Case Required >

Account Name	Site	Main Phone #	Status
Gabriel Communications	Chesterfield, MO	(800) 477-5148	Active

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23 of 28



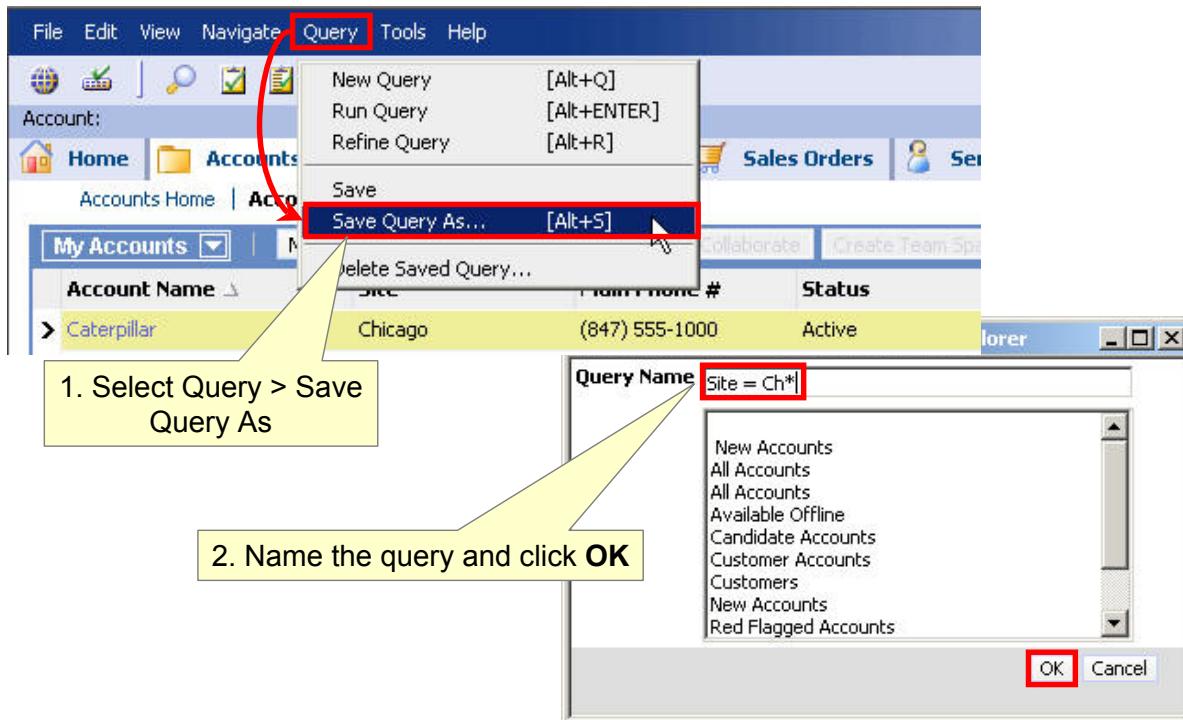
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## Saving a Query

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



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24 of 28

## Executing Predefined and Saved Queries

- Predefined queries are provided by an application administrator
  - ▶ Cannot be deleted by an end user
- Additional saved queries are created and saved by the user
- All saved and predefined queries appear in the Saved Queries drop-down list





## Module Highlights

- Creating and editing data may involve using:
  - ▶ Required and optional fields
  - ▶ Drop-down lists
  - ▶ MVG fields
  - ▶ Attachments
- Siebel applications support complex queries on data with:
  - ▶ Wildcards
  - ▶ Logical and numerical operators
  - ▶ Support for searching multi-value group (MVG) fields
- The Query Assistant helps end users form complex queries
- Commonly-executed queries may be saved



## Lab

- In the lab you will:
  - ▶ Create, modify, and delete records
  - ▶ Use basic querying skills



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**Siebel 8.0 Essentials**

## **Module 4: Responsibilities and Views**

**4**

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## Module Objectives

After completing this module you should be able to:

- ▶ Describe the purpose of a responsibility
- ▶ Create a new responsibility
- ▶ Modify an existing responsibility

Why you need to know:

- ▶ Access to views within the application is controlled by responsibilities
- ▶ Understanding responsibilities is required to properly configure users within the application



## Business Challenge

- Large-scale enterprise applications should not grant all users access to the entire application, for example:
  - ▶ Most users should not have access to system administration views
  - ▶ Most users should not have access to all data in the application, for example:
    - Employee salaries, sales contracts, and other sensitive data
    - Data not related to the employee's job function
- Application administrators require a mechanism to restrict access to views and data
  - ▶ Ideally, the restriction mechanisms should be independent of one another:
    - One mechanism to restrict access to views
    - A separate mechanism to restrict access to data



## Business Solution: Access Control

- Siebel applications provide mechanisms known as Access Control to restrict views and data seen by users
  - ▶ Responsibilities control access to views
    - Subject of this module
  - ▶ Positions control access to data
    - Subject of subsequent module
  - ▶ These Access Control mechanisms are independent of one another

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4 of 22

### Positions

Positions will be discussed in a subsequent module



## 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

The System Administrator has many more administrative views than a Call Center Agent. Notice that even the set of screen tabs is different

### System Administrator

File Edit View Navigate Query Tools Help

Queries: [ ]

Home:

[Home](#) | [Accounts](#) | [Contacts](#) | [Opportunities](#)

Screens

Click a screen hyperlink to see all the views for the screen.

Accounts	Administration - User
Activities	Administration - Web
Administration - Alert	Browser
Administration - Analytics	Administration - Web
Administration - Application	Services
Administration - Assignment	Administration - iHelp
Administration - Audit Trail	Agreements
Administration - Briefings	Alerts

### Call Center Agent

File Edit View Navigate Query Tools Help

Queries: [ ]

Home:

[Home](#) | [Accounts](#) | [Contacts](#) | [Households](#)

Screens

Click a screen hyperlink to see all the views for the screen.

Accounts	Engineering
Activities	Entitlements
Administration - Application	Events
Administration - Briefings	Expense Reports
Administration - Data Quality	Finance
Administration - Data	Forecasts
Administration - Forecast	Fulfillment
Administration - Product	HelpDesk

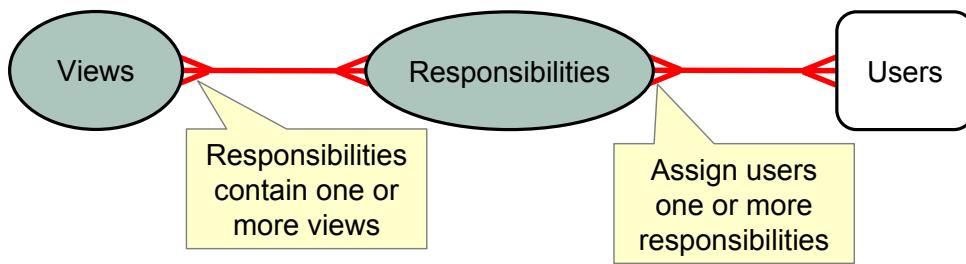
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5 of 22



## Responsibilities

- Are collections of views associated with a job function
  - ▶ All of the views necessary to perform that particular job function
- Are assigned to users according to their job functions
- Users may have more than one job function, hence may have more than one responsibility



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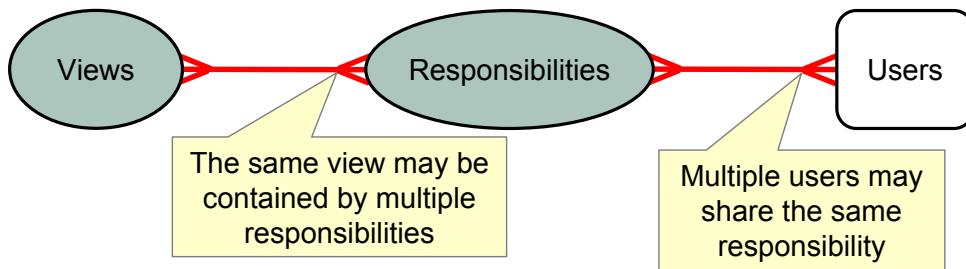
6 of 22

**Reference**

Siebel Security Guide: Configuring Access Control

## Properties of Responsibilities

- A view may be contained in multiple responsibilities
  - ▶ For example, the Home Page View of an application should be included in every responsibility used to access that application
- Multiple users may share the same responsibility
  - ▶ For example, Call Center agents





## 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

Responsibility	Description	Organization	Web Access
Analyst Routing Model	Analyst Routing Model	Default Organization	
Anonymous User - SMC	Views for Anonymous Users	Default Organization	
Asset Management		Default Organization	
Business Analyst		Default Organization	
CEO		Default Organization	



## 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

File Edit View Navigate Query Tools Help

Responsibility:

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 | Business Service Ac

Responsibilities | Menu ▾ | New Delete Query Clear Cache

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

Create new responsibilities for customized, editable responsibilities

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9 of 22

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## Assigning Responsibilities to Users

- Assign responsibilities to users according to their job role(s)
  - ▶ Users with multiple responsibilities see the union of the views
  - ▶ Users with no responsibilities see nothing
    - Critical to remember to assign responsibilities to partners and Web customers

The screenshot shows two windows from the Siebel application. The top window is a 'Users' view with columns: Last Name, First Name, User ID, and Responsibility. A row for user 'Cheng' is selected, showing 'Casey' as the first name, 'CCHENG' as the user ID, and '7.5 Universal Agent' as the responsibility. A yellow callout box points to the 'Select' button in the Responsibility column header, with the text: 'Click the Select button to bring up the Responsibilities list'. A red arrow points from this callout to the 'Select' button. The bottom window is titled 'Responsibilities - Microsoft Internet Explorer'. It has two panes: 'Available' on the left and 'Primary' on the right. The 'Available' pane lists various responsibilities like '7.5 Universal Agent', 'ALL USER RESPONSIBILITY', etc. The 'Primary' pane shows the assigned responsibilities for user 'CCHENG', which include '7.5 Universal Agent', 'Universal Agent', 'ERM User', etc. A yellow callout box over the 'Primary' pane states: 'CCHENG has many responsibilities, and is able to see all of the views in all of them'. A red arrow points from this callout to the 'Primary' pane.

Last Name	First Name	User ID	Responsibility
Cheng	Casey	CCHENG	7.5 Universal Agent

Responsibilities - Microsoft Internet Explorer	
Query	Find Responsibility
<b>Available</b>	1 - 10 of 10+
<b>Responsibility</b>	<b>Description</b>
7.5 Universal Agent	ALL USER RESPONSIBILITY
ALL VIEW RESPONSIBILITY	Additional Responsibility for GUESTCP
Administrator	Analyst Routing Model
Anonymous User - SMC	

Primary	Responsibility
	7.5 Universal Agent
	Universal Agent
	ERM User
	eMail Response Agent
	eBriefings User
	ISS Analytics Administrator
✓	Universal Agent (B2B+B2C)

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## Primary Responsibilities

- Assign each user a primary responsibility
  - ▶ Determines the initial tab layout when the user logs in
    - Administrator determines the initial layout
    - User can edit personal preferences to create a different layout

The screenshot shows the Siebel application interface. At the top, there's a navigation bar with 'Users' (selected), 'Menu', 'New', 'Delete', and 'Query' buttons. Below this is a table with columns: Last Name, First Name, User ID, and Responsibility. A single row is selected for 'Cheng' (Casey) with User ID 'CCHENG' and Responsibility '7.5 Universal Agent'. The main area is titled 'Responsibilities - Microsoft Internet Explorer'. It has two lists: 'Available' and 'Selected'. The 'Available' list shows various responsibilities like '7.5 Universal Agent', 'ALL USER RESPONSIBILITY', etc. The 'Selected' list shows responsibilities assigned to the user, including '7.5 Universal Agent' (marked as Primary). A callout box highlights 'CCHENG's primary responsibility is Universal Agent (B2B+B2C), so she initially sees the tab layout for that responsibility'. The bottom of the screen shows a red footer with 'Copyright © 2007, Oracle. All rights reserved.' and '11 of 22'.

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11 of 22

0/3

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## Creating a Responsibility

1. Copy or Create a Responsibility

2. Add or Remove Views

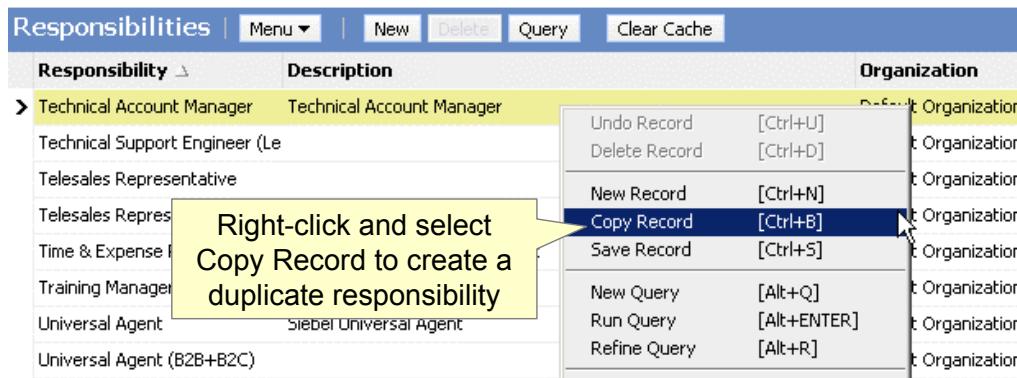
3. Test the Responsibility

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12 of 22

## 1. Copy or Create a 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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13 of 22

## 1. Copying or Creating Responsibilities

- Copying seed responsibilities:
  - ▶ Provides a “quick start” in creating responsibilities with large numbers of views
  - ▶ May provide far more views than your business logic requires
    - Seed responsibilities frequently contain hundreds of views
    - Inefficient for inexperienced users
    - May include inappropriate administrative views
- Creating new responsibilities:
  - ▶ Allows fine-tuning of application logic to exactly match business requirements
    - Users see only those views that your company has decided they require to perform their job functions
  - ▶ Requires determining exactly which views a user may require and adding those views to the responsibility

## 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

The screenshot shows the Siebel interface for managing responsibilities. At the top, there's a navigation bar with links like Home, Accounts, Contacts, Opportunities, Quotes, Sales Orders, Service, and Administration - Application. Below that is a toolbar with buttons for New, Delete, Query, and Clear Cache. The main area is titled 'Responsibilities' and shows a list of responsibilities. One row is selected, showing 'ABC Developer' and 'Default Organization'. Below this is a table titled 'Views' with columns for View Name, Description, Local Access, Read Only View, Last Name, First Name, User ID, and Job Title. An 'Add' button is highlighted with a red box and an arrow pointing to it. A tooltip says '1. Click Add to add views to a responsibility'. In the foreground, a modal window titled 'Add Views' is open, showing a list of view names and descriptions. One item, 'Repository Workflow Process Definition Parent-Child View', is selected. A tooltip for this window says '2. Pick applet supports querying for and adding multiple views at once'. The modal has a 'Query' button, a 'Find' button, and a 'View Name' dropdown.

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15 of 22

## 2. Read-Only Views

- After editing the set of views for the responsibility, mark views as read-only for that responsibility if desired
  - ▶ Allows different responsibilities to have different levels of access to the same view

The screenshot shows the Siebel application interface. At the top, there's a navigation bar with links like Home, Accounts, Contacts, Opportunities, Quotes, Sales Orders, Service, and Administration - Application. Below the navigation bar, the main content area has two tabs: 'Responsibilities' and 'Views'. The 'Responsibilities' tab is currently selected, displaying a list of responsibilities with columns for Responsibility, Description, Organization, and Web Access. One row is highlighted for 'ABC Developer'. The 'Views' tab is also visible, showing a list of views with columns for View Name, Description, Local Access, and Read Only View. A yellow callout box points to the 'Read Only View' column, with the text: 'Mark views as Read Only Views to prevent editing'. The bottom of the screen has a red footer bar with copyright information and page numbers.

Responsibility	Description	Organization	Web Access
ABC Developer	Responsibility for ABC Company Developers	Default Organization	
Analyst Routing Model	Analyst Routing Model	Default Organization	

View Name	Description	Local Access	Read Only View
Repository Applet List View	Repository Applet Li	✓	
Repository Applet Method Menu Item List View	Repository Applet M	✓	
Repository Applet Script List View	Repository Applet Si	✓	
Repository Applet Toggle List View	Repository Applet Ti	✓	✓

## 2. Clear the 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 interface. At the top, there is a menu bar with File, Edit, View, Navigate, Query, Tools, and Help. Below the menu is a toolbar with various icons. The main area has two tabs: 'Responsibilities' and 'Views'. The 'Responsibilities' tab is currently selected, showing a list of responsibilities. One row is highlighted in yellow, and a callout box points to the 'Clear Cache' button in the toolbar above the list. The list includes:

Responsibility	Description	Organization	Web Access
ABC Developer	Responsibility for ABC Company Developers	Default Organization	
Analyst Routing Model	Analyst Routing Model	Default Organization	

Below the responsibilities list is another table for 'Views':

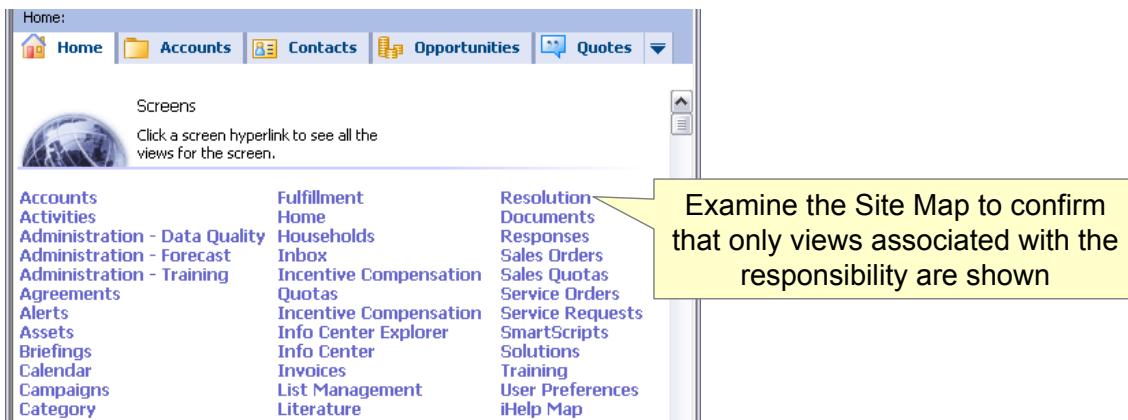
View Name	Description	Local Access	Read Only View	Last Name	First Name
Repository Applet List View	Repository Applet Li	✓			
Repository Applet Method Menu Item List View	Repository Applet M	✓			
Repository Applet Script List View	Repository Applet Si	✓	✓		
Repository Applet Toggle List View	Repository Applet Ti	✓			

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17 of 22

### 3. Test the Responsibility

- Assign the responsibility to a sample user
  - ▶ Use the Administration – User > Users view
- Log in as that user and verify the available views from the Site Map
  - ▶ Users only see references to views that are contained in their responsibilities



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18 of 22



## Additional Features

- Use responsibilities to restrict access to business services, business processes, and tasks
  - ▶ This prevents unauthorized users from invoking them

The screenshot shows the Siebel application interface. At the top, there is a navigation bar with links for Home, Accounts, Contacts, Opportunities, Quotes, Sales Orders, Service, Administration - Application, and various system links like Branch Locator, Contact Us, Alerts Online, License Keys, Predefined Queries, Reports Server Administrator Profile, Responsibilities, Business Service Access, etc. Below the navigation bar, there are two main tabs: 'Responsibilities' and 'Views'. The 'Responsibilities' tab is currently active, showing a list of responsibilities. One responsibility, 'ABC Developer', is selected and highlighted in yellow. The 'Description' column shows 'Default Organization'. Below the list are buttons for New, Delete, Query, Clear Cache, and Query Results, along with a note '1 - 1 of 1'. The 'Views' tab is also visible. A red box highlights the 'Business Service' tab in the 'Views' header, which includes buttons for Add, Delete, Query, and a note 'No Records'. The 'Users' tab is also present in the 'Views' header.

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19 of 22

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## Module 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



## Lab

- In the lab you will:
  - ▶ Explore seed responsibilities
  - ▶ Create and test a new responsibility



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***Siebel 8.0 Essentials***

## **Module 5: Users, Positions, and Organizations**

**5**

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## Module Objectives

After completing this module you should be able to:

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

Why you need to know:

- ▶ Access to some data within the application is controlled by users, positions, and organizations
- ▶ Implementing your company's structure enables role- and organization-specific functionality in Siebel CRM



## Business Challenge

- Large-scale enterprise 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
- System 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

The image contains two separate screenshots of a Siebel application interface, both titled "My Service Requests".  
The top screenshot shows three service requests for "Bell Canada" with owner "CCHENG":

SR # ▲	Summary	Account	Owner
1-1323601	Environment: Production Special Consi	Bell Canada	CCHENG
1-1826242	How do I setup a networked printer on m	Marriott International	CCHENG
1-1856014	Problem with resolution after self-installatir	Marriott International	CCHENG

  
The bottom screenshot shows three service requests for "3Com" with owner "TARNOLD":

SR # ▲	Summary	Account	Owner
1-10E-3B	Onsite PM service for Server.	3Com	TARNOLD
1-1404156	Using Siebel Call center with Genesys C	Puma Sports, Inc.	TARNOLD
1-1404201	Dynamic Screen Pops not working on tr	Hydro-Quebec	TARNOLD

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4 of 22

### Reference

Siebel Security Guide: Configuring Access Control



## 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

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

Last Name	First Name	User ID	Responsibility
Cheng	Casey	ITA_CCHE	Call Center Manager
Cheng	Chris	KOR_CCHE	Consultant
Cheng	Chris	SVE_CCHE	Call Center Manager
Cheriyan	John	JCHERIYA	Sales Manager
Chi	Helen	HCHI	Reports User
Chin	Isaac	ICHIN	ERM User

108 - 117 of 126+ |

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5 of 22

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

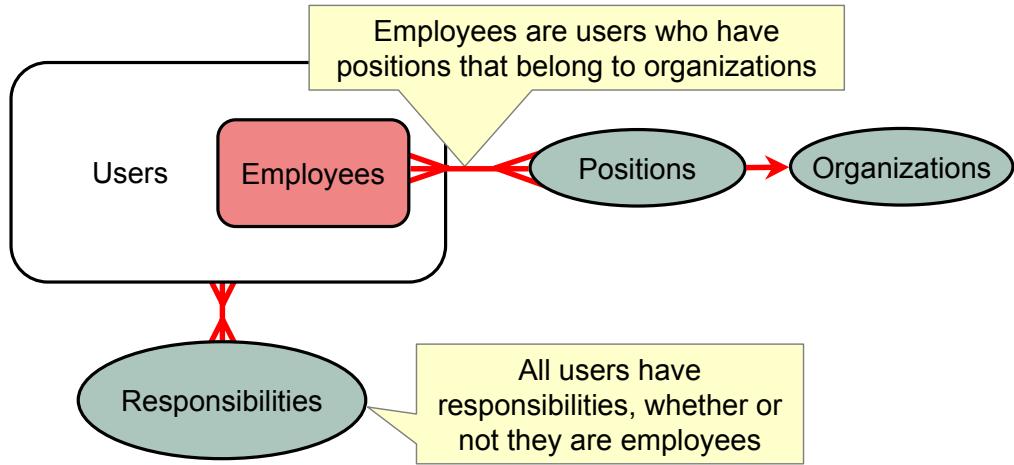
### Reference

Developing and Deploying Siebel Business Applications: Required Application Administration Tasks

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## 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





## Positions

- Positions are 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
- Employees may have one or more positions
  - ▶ One position is designated as the primary position, and is the position employees occupy when they log in
  - ▶ Employees only see data for their current position
  - ▶ Employees may change positions once they have logged in



## Changing Positions

- If an employee has more than one position, he or she can change position during a session
  - ▶ From the application-level Tools menu, select User Preferences > Change Position
  - ▶ Becomes the Active Position for that session
- Changing the default login (primary) position for an employee is an administrator function

The screenshot shows the Siebel application interface. At the top, there is a navigation bar with various tabs: Home, Accounts, Contacts, Opportunities, Orders, Service, Administration - Group, and User Preferences. The User Preferences tab is highlighted. Below the navigation bar, there is a sub-menu bar with Profile, Availability, Behavior, Calendar, Communications, Correspondence, and DB Synchronization. The main content area is titled "Change Position". It contains a toolbar with "Change Position" and a "Menu" dropdown. Below the toolbar is a grid with three columns: Active Position, Organization, and Position. In the Active Position column, there is a dropdown arrow icon. In the Organization column, there is a checkmark icon. In the Position column, the value "Siebel Administrator" is displayed. A red box surrounds the "Change Position" button in the toolbar and the "Position" column in the grid. A red arrow points from the "User Preferences" item in the Tools menu (which is also highlighted with a red box) down to the "User Preferences" button in the bottom right corner of the application window.

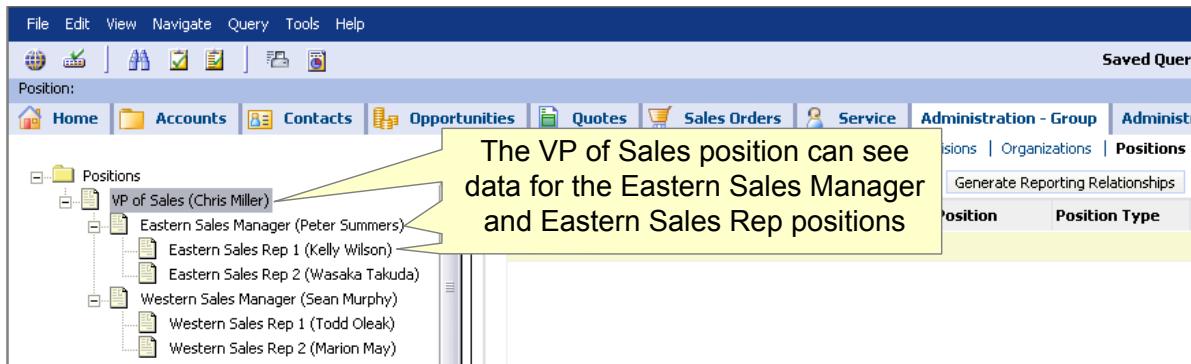
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8 of 22



## 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 for each position



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9 of 22



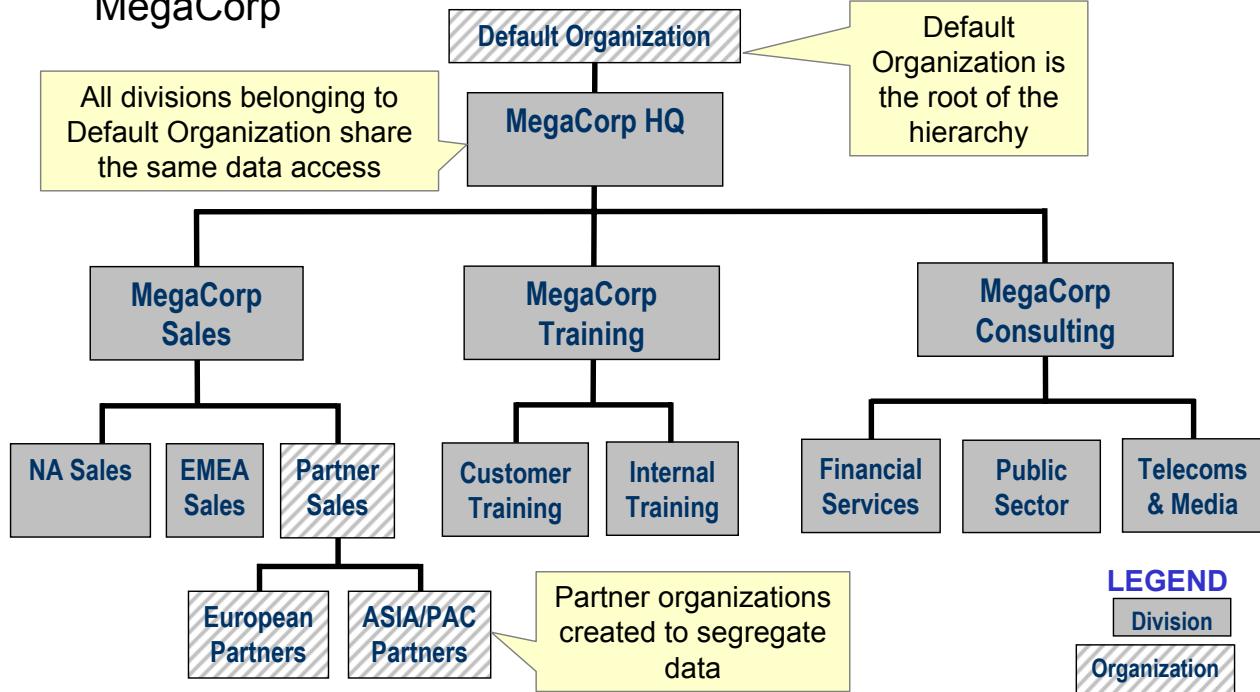
## Divisions and Organizations

- 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
  - ▶ Data is shared among divisions within an organization

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## Example: MegaCorp Organizational Structure

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



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11 of 22

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## 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

The screenshot shows the Siebel Positions and Divisions interface. On the left, a navigation tree under 'Position' shows 'VP of Sales (Chris Miller)' and 'Eastern Sales Manager (Peter Sumrall)'. The main area displays a grid of positions:

Division	Position	Parent Position	Position Type	Last Modified
MegaCorp East Sales	Eastern Sales Manager	VP of Sales	Sumrall	2007-01-02 10:00:00
MegaCorp West Sales	Western Sales Manager		Murphy	2007-01-02 10:00:00

A tooltip on the right states: "The Eastern Sales Manager position is assigned to the MegaCorp East Sales division". A callout box on the left points to the Eastern Sales Manager row in the grid, stating: "This position is associated with the MegaCorp East Sales division, which belongs to the Default Organization".

Details for the selected 'Eastern Sales Manager' position are shown in the bottom right:

- Position: \* Eastern Sales Manager
- Parent Position: VP of Sales
- Position Type:
- Division: \*
- Organization: Default Organization
- First Name: Peter
- Job Title: Eastern Sales Manager
- Start Date: 1/2/2007
- End Date:

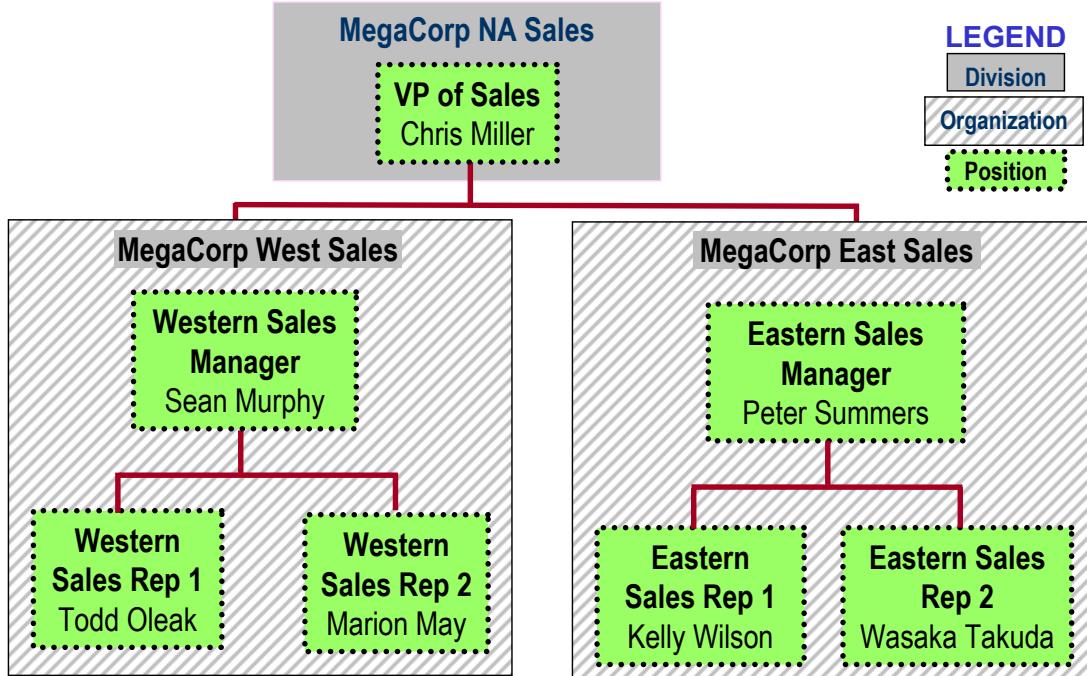
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12 of 22

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## Example: NA Sales with Positions and Users

- The NA Sales division (part of Default Organization) might have users and positions that look something like this:



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13 of 22

0/5

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## Implementing the Company Structure

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

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14 of 22

## 1. Create Divisions and Division Hierarchy

- Create divisions in the Administration – Group > Internal Divisions view
  - ▶ Required fields are division name and currency
  - ▶ Be careful: Once divisions are created they cannot be deleted

Division Name	Organization Name	Address	City	State
MegaCorp Consulting	Default Organization			
MegaCorp EMEA Sales	Default Organization			
MegaCorp East Sales	MegaCorp East Sales			
MegaCorp HQ	Default Organization			
MegaCorp NA Sales				
MegaCorp Sales				
MegaCorp Training				

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15 of 22

## 2. Label Some Divisions as Organizations

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

Division Name	Organization Name	Address	City	State
MegaCorp Consulting	Default Organization			
MegaCorp EMEA Sales	Default Organization			
MegaCorp East Sales	MegaCorp East Sales			
MegaCorp HQ	Default Organization			
MegaCorp NA Sales				
MegaCorp Sales				
MegaCorp Training				

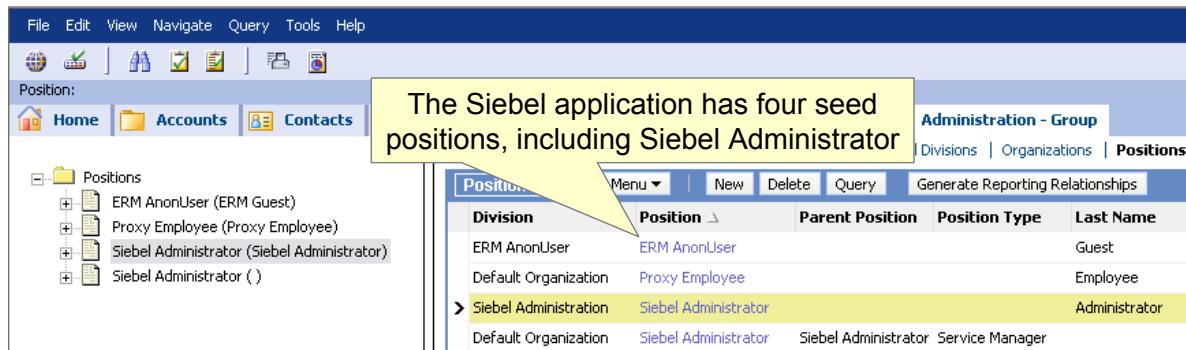
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16 of 22

**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.

### 3. Create Positions

- Create Positions on the Administration – Group > Positions view
  - ▶ Positions require a name and a division
- Siebel applications provide some seed positions such as Siebel Administrator
- Recommended practice: Do not delete positions, as they are related to data



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17 of 22

## 4. Create Employees

- Use the Administration – User > Employees view to create employees
  - ▶ Employee will also appear as a user
- Required fields are First Name, Last Name, User ID, Position, and Organization
- By default, new employee records are in the same organization as the person creating the record
  - ▶ Used for access control of visibility of employee records
  - ▶ Can be changed to reflect appropriate access control

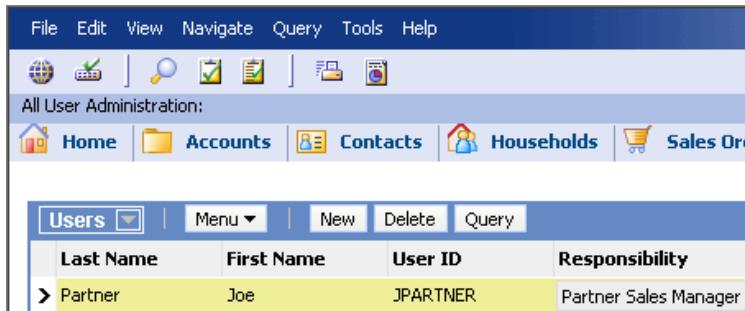
Last Name	First Name	Job Title	User ID	Position	Organization	Employee Type	Responsibility
Summers	Peter	Eastern Sales Manager	PSUMMERS	Eastern Sales Manager	Default Organization	Employee	Siebel Administrator

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18 of 22

## 5. Create Users

- Some users will not be employees
  - ▶ For examples, customers and partners
- Create them in the Administration – Users > Users view
  - ▶ Customers and partners require responsibilities, but not positions



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19 of 22



## Module Highlights

- Users are individuals who log in to the application
  - ▶ Require responsibilities
- Employees are special users representing employees of the company
  - ▶ Hold at least one position
  - ▶ Belong to at least one organization
- 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



## Lab

- In the lab you will:
  - ▶ Implement a company structure, including divisions, organizations, positions, and employees





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## Module 6: Controlling Access to Customer Data

6

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## Module Objectives

After completing this module you should be able to:

- ▶ Describe the difference between customer and master data in Siebel applications
- ▶ Describe the different Access Control mechanisms used to restrict access to data in Siebel applications
- ▶ Identify the different view types used for different types of users

Why you need to know:

- ▶ To effectively use and administer Siebel applications, you need to understand how access to data is controlled
- ▶ Understanding view types is essential to properly assigning them to responsibilities



## Business Challenge

- Users often perform the same job functions but on different sets of data
  - ▶ For example, sales representatives need access to the records for their own accounts, but not each others'
- Access to some data in the enterprise needs to be restricted
  - ▶ Users should only see records they need to do their job
  - ▶ Users should easily locate records of interest



## Business Solution: Access Control for Data

- Siebel applications provide mechanisms to restrict access to certain records based on:
  - ▶ The employee
  - ▶ The employee's position
  - ▶ The position's organization
- Limited access to data:
  - ▶ Increases business security
  - ▶ Increases user productivity

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4 of 26

### Reference

Siebel Security Guide: Configuring Access Control



## Relationship Between Views and Data

- Access to views is independent of access to data
  - ▶ But the view defines the Access Control mechanism that will be used to access data
- Data displayed within a view is based on the Access Control mechanism for the view
  - ▶ Example: Ted Arnold and Casey Cheng can access the same view based on their responsibilities, but see different data in the view

Casey Cheng  
(CCHENG) sees  
only her own  
service requests

My Service Requests ▾		Menu ▾	New	Delete	Query
SR # ▲	Summary	Account	Owner		
1-1323601	Environment: Production Special Consi Bell Canada	Bell Canada	CCHENG		
1-1826242	How do I setup a networked printer on m Marriott International	Marriott International	CCHENG		
1-1856014	Problem with resolution after self-installatir Marriott International	Marriott International	CCHENG		

Ted Arnold  
(TARNOLD) can  
access the same view  
but sees only his own  
service requests there

My Service Requests ▾		Menu ▾	New	Delete	Query
SR # ▲	Summary	Account	Owner		
1-10E-3B	Onsite PM service for Server.	3Com	TARNOLD		
1-1404156	Using Siebel Call center with Genesys C Puma Sports, Inc.	Puma Sports, Inc.	TARNOLD		
1-1404201	Dynamic Screen Pops not working on tr Hydro-Quebec	Hydro-Quebec	TARNOLD		

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5 of 26

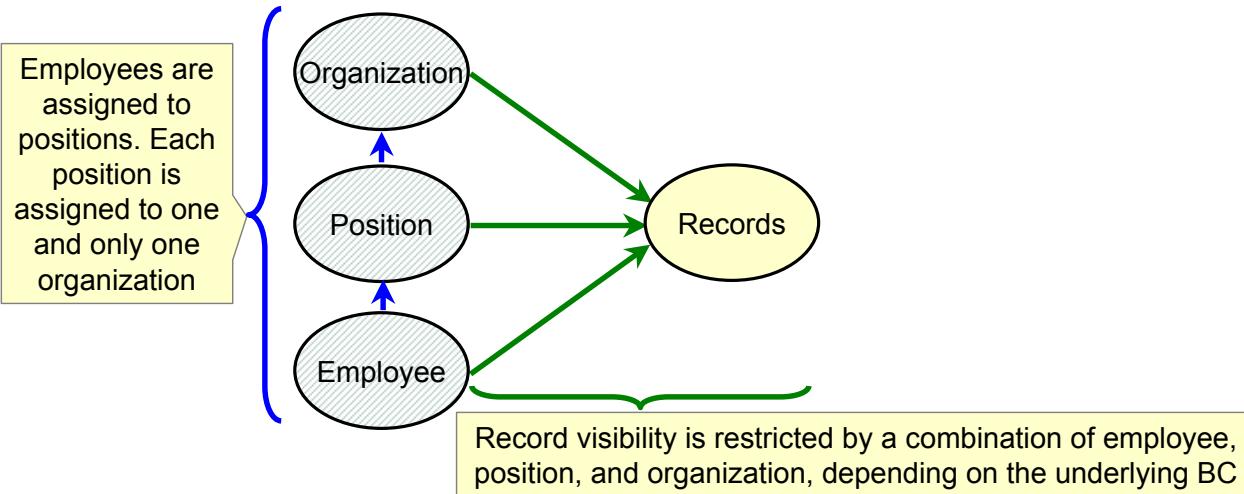


## Data Classification

- Data in a Siebel Enterprise is classified as either customer data or master data
- Customer data:
  - ▶ Consists of dynamic, transactional data such as service requests and opportunities
  - ▶ Is typically created and managed by users of the application
  - ▶ Has access controlled at the record level according to employee, position, organization, or a combination thereof
- Master data:
  - ▶ Includes static, referential data such as products and literature
  - ▶ Is created and maintained by administrators
  - ▶ Can be grouped into categories and catalogs
  - ▶ Has access controlled according to catalog and category

## Accessing Customer Data

- Individual records may be restricted by employee, position, organization, or a combination thereof
  - ▶ Data visibility is determined by Siebel-set properties of the underlying business component (BC)
  - ▶ Visibility may be restricted to an individual employee, position, or organization, or multiple employees, positions, or organizations





## Viewing Customer Data

- For customer data that is access controlled, visibility is determined using the following drop-down visibility filters:
  - ▶ My views
  - ▶ My Team's views
  - ▶ All views
  - ▶ All Across My Organizations views
  - ▶ All Across Organizations views
- Assigning the appropriate views to the appropriate responsibilities is critical for data access control

The screenshot shows the Siebel Opportunities List interface. At the top, there is a menu bar with File, Edit, View, Navigate, Query, Tools, and Help. Below the menu is a toolbar with various icons. The main header says "Opportunity:" and "Opportunities". Underneath the header, there are links for Home, Accounts, Contacts, and Opportunities. The Opportunities link is highlighted. Below these are links for Opportunities Home, Opportunities List, Charts, and Opportunity Explorer. A dropdown menu is open under the Opportunities List link, titled "My Opportunities". The options in the dropdown are: My Opportunities, My Team's Opportunities, All Opportunities, All Opportunities Across My Organizations, and All Opportunities Across Organizations. To the right of the dropdown, there is a table with columns for Count, Revenue, and Last Update. The table contains two rows of data: one for "Facebook" with a value of \$0.00, and another for "iott International" with a value of \$687,500.00.

The visibility filter drop-down list shows the views available according to the user's responsibilities

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8 of 26

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## My Views

- My views show records where you or your position is directly associated with the record
  - ▶ For example, My Accounts or My Contacts
- For some records such as Accounts or Opportunities there is a team of positions associated with each record
  - ▶ The record appears in My View if your position is on the team

Account Name ▲	Site	Status	Main Phone #
Boston Bakers			
> California Dreaming	Santa Cruz		

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9 of 26

### Primaries

In order for a team-controlled record to be visible in the My views, a primary team member must be specified.

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## My Personal Views

- Are used to display records directly owned by you or your position
- Are special-case views that are rarely used (for example, with Contacts)

My Personal Contacts ▾				
Last Name ▲	First Name	Work Phone #	Account	Mr/Ms
Byatt	Judy	(212) 989-4333	McMillan & Company	Ms.
Frazelle	Emily	(202) 334-5587		Mrs.
Furr	Justin	(909) 877-6655	Art.net	Mr.

A sales agent only  
sees contacts for  
which he or she is  
the direct owner

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## My Team's Views

- Are an additional view for managers that allow them to see records assigned to their direct and indirect reports
  - ▶ For records with teams of positions, only records where the primary is the direct or indirect report are displayed
  - ▶ Manager does not have to be assigned to the record
- Are typically assigned only to manager responsibilities
- Are implemented using the position hierarchy

	Site	Main Phone #	Status
Santa			Active

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## All Views

- Are used to show all records belonging to your current organization
  - ▶ The organization of your current position
  - ▶ Not related to My or My Team's views, which are person or position oriented

All Service Requests ▾			
SR #	Owner	Status	Organization
1-3376213	BBRAHMBH	Open	Default Organization
1-3376219	BBRAHMBH	Pending	Default Organization
1-3547227	SADMIN	Open	Default Organization
1-3559557	SADMIN	Open	Default Organization
1-3594142	SADMIN	Open	Default Organization
1-3606701	PSINGH	Closed	Default Organization

A service agent sees all the service requests assigned to his or her organization, regardless of the owner

### Primaries

In order for a team-controlled record to be visible in the All views, a primary team member must be specified.

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## Customer Data and Organizations

- By default, when a record is created it is associated with the organization of the creator's current position
- To change the organization associated with a record, use the More Info view
  - ▶ Records may be associated with multiple organizations

Akamai Technologies, Inc.

Account Name:	Akamai Technologies, Ir	Site:	Cambridge, MA
Address:	118 Turnpike Rd	Address Line 2:	
City:	Southborough	State:	MA
Zip Code:	01772-2104	Country:	USA

More Info   Activities   Contacts   Notes   Opportunities   Revenues   Service Pro

Parent:	Account Type:	Commercial
Parent Site:	Organization:	PCS Americas

A record's Organization is usually shown under the More Info tab in the detail view

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13 of 26



## All Across My Organizations Views

- Are used to display all data from an organization and its child organizations
  - ▶ Based on the relationships specified by the organizational hierarchy
- Are typically restricted to users who need to access records at the enterprise level
  - ▶ Mid-level executives
  - ▶ Partners
- Are typically used for only a few types of records
  - ▶ For example, opportunities
  - ▶ In the All Opportunities Across My Organizations view, a sales manager sees all opportunities in his or her organization and all of its child organizations

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## All Across Organizations Views

- Are used to show all records in the enterprise that are assigned an organization
- Are typically restricted to only those users who need to access records across the whole company
  - ▶ Top-level executives

All Service Requests across Organizations ▾				Menu ▾
SR #	Owner	Status	Organization	
1-1693025	FRA_CCHE	Open	PCS France	
1-1693031	SADMIN	Open	Default Organization	
1-1693035	FRA_CCHE	Open	PCS France	
1-1700934	DEU_CCHE	Open	PCS Germany	
1-10E-3B	TARNOLD	Open	PCS Americas	

A vice president of sales can see all service requests that have been assigned



## Administration Views

- Are used to display all database records, even those without a valid owner
  - ▶ For example, records that have just been imported but not yet assigned or records where the primary position has been deleted
- Are accessed from the Administration views for each major entity
- Should be restricted to a few users in the enterprise as they display all records in the database

The screenshot shows the Siebel interface for managing accounts. At the top, there's a menu bar with File, Edit, View, Navigate, Query, Tools, Help, and an Oracle logo. Below the menu is a toolbar with icons for Home, Accounts, Contacts, Opportunities, Quotes, and Sales Orders. The main area is titled 'Accounts' and shows a list of accounts with columns for Account Name, Site, Main Phone #, and Status. One account, 'MKTG Account 106', is highlighted in yellow. A callout box with a blue border and white text points to this highlighted row, stating: 'Administration views are separate from the visibility filter drop-down list'. The status column shows entries like 'Active' and 'In Progress'.

Account Name	Site	Main Phone #	Status
MKTG Account 106		(801) 555-6789	In Progress
MKTG Account 107		(801) 555-6789	In Progress
MKTG Account 108		(801) 555-6789	Active
MKTG Account 109		(801) 555-6789	Active
MKTG Account 110		(801) 555-6789	Active

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16 of 26



## Summary: Types of Views

Views	Description
My View	Displays records directly assigned to you based on user ID or active position
My Personal View	Only displays records you directly own
My Team's View (Manager's View)	Allows managers to see records assigned to their direct and indirect reports that are the primary owner based on reporting structure
All View	Displays all records associated with the user's organization
All Across My Organizations View	Displays records that are assigned to the user's organization and its child organizations
All Across Organizations View	Displays all records in the enterprise with a valid organization
Administration Views	Display all records in the database, even those without a valid organization

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17 of 26



## Best Practices for Views

- My Views:
  - ▶ Individual contributors should always have access
    - Allows them to see records directly associated with them or their position
  - ▶ Managers and executives may or may not require access
    - Require access if they might be on a team associated with a record
    - Do not require access if they will never be associated with a record
- My Team's Views:
  - ▶ Individual contributors should not have access unless they have people who report to them
  - ▶ Managers should have access
    - Allows them to see records associated with their reports
  - ▶ Executives may or may not require access



## Best Practices for Views Continued

- All Views:
  - ▶ Individual contributors may or may not need access
    - Call center agents should be able to see all of a company's service requests, hence should have an All Service Requests view
    - Sales representatives may or may not need to see all opportunities within their organization, depending on the business model
  - ▶ All views are typically restricted to users who need to access records at the organization level
    - Executives, administrators
    - Service agents who need to access all service requests
- All Across Organizations Views:
  - ▶ These views are usually reserved for upper managers and executives
    - Exception: Call center agents may need to see all service requests filed by a customer worldwide, hence may need access to these views



## Review: Access to Customer Data

- Can be restricted by assigning individual records to:
  - ▶ Employees (specified by employee's user ID)
  - ▶ Positions
  - ▶ Organizations



## Using Multiple Access Control Mechanisms

- A record can be restricted by more than one Access Control mechanism
  - ▶ Mechanisms are not mutually exclusive
- Each view is preconfigured to use only one mechanism at a time
  - ▶ If you want to use another mechanism, you create and configure another view

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21 of 26

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## Examples

- An employee's position may be assigned to an account that is not assigned to that employee's organization
  - ▶ Employee sees the account in the My View
  - ▶ Employee does not see the account in the All View
- Contacts have multiple access mechanisms: public (team-based), private (position- or employee-based), and manager
  - ▶ Employee sees public contacts in the My View
  - ▶ Employee sees private contacts in the My Personal View
  - ▶ Manager sees contacts for self and subordinates in the My Team's View

The image shows three separate Siebel contact lists side-by-side. Each list has a header bar with a dropdown arrow and a 'Menu' button. The first two lists have a 'Last Name' column and a 'First Name' column. The third list has a 'Last Name' column and a 'First Name' column.

My Contacts	
Last Name	First Name
Rubin	Jason
Schmidt	David

My Personal Contacts	
Last Name	First Name

My Team's Contacts	
Last Name	First Name
Administrator	Siebel
Subzero	RepFreeze

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22 of 26

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## Summary of Record Assignment

- Standard Siebel business entities can be assigned to single or multiple employees, positions, or organizations

Access Method	Single-Valued Access	Multi-Valued Access
Employees	Service requests Expense reports Contacts	Assets Activities
Positions	Forecasts Quotes	Accounts Contacts Opportunities
Organizations	Assets Consumers Forecasts	Accounts Opportunities Quotes



Team  
Access  
Control

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23 of 26



## Module Highlights

- Access to records may be restricted by employee, position, organization, or a combination thereof
- Which records are shown depends on the view selected from the visibility filter drop-down list
- Multiple Access Control mechanisms may be in place for a single record
  - ▶ For example, both position-based and organization-based Access Control



## Lab

- In the lab you will:
  - ▶ Explore record visibility in the application
  - ▶ Add a position to a user and examine how it affects the various visibility filters

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25 of 26





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## Module 7: Catalogs and Master Data

7

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## Module Objectives

- After completing this module you should be able to:
  - ▶ Identify how master data is organized into catalogs and categories
  - ▶ Identify how users are organized into access groups
- Why you need to know:
  - ▶ Administering master data requires an understanding of catalogs, categories, and access groups



## Business Challenge

- Companies have large amounts of data that must be:
  - ▶ Classified, so that it is easy to organize, administer, navigate, and search
  - ▶ Controlled, so that users only have access to appropriate data
- Example: Companies want different sales divisions to have access to different product lists



## Business Solution

- Siebel applications provide mechanisms for:
  - ▶ Organizing and classifying large amounts of static, referential data
  - ▶ Organizing users into groups for appropriate access to data



## Master Data

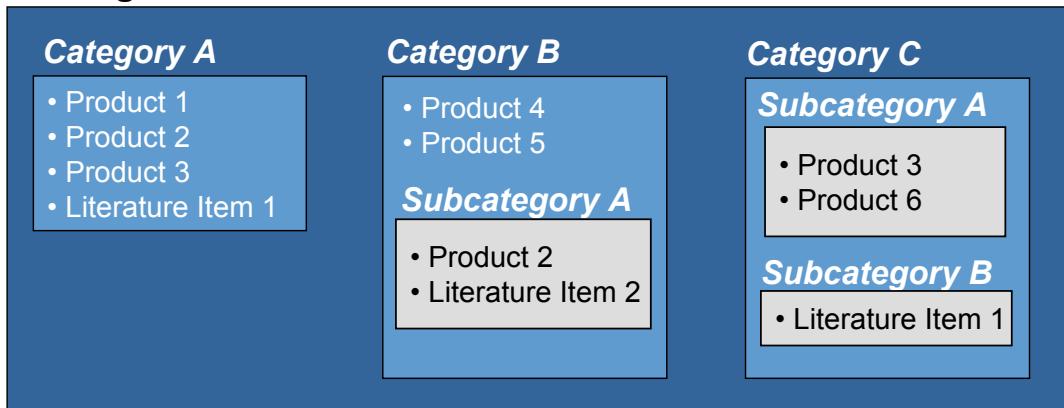
- Is static, referential data managed by administrators
  - ▶ Products
  - ▶ Solutions
  - ▶ Literature
  - ▶ Resolution items
  - ▶ Auction items
  - ▶ Events
  - ▶ Decision issues
  - ▶ Competitors
  - ▶ Training courses
- Has its visibility controlled by:
  - ▶ Catalogs
  - ▶ Categories
  - ▶ Access groups



## Catalogs

- Are containers for hierarchies of categories
  - ▶ Do not contain master data themselves
- Are created to contain a specific subset of the master data
  - ▶ For example, customer documentation for credit card accounts

### Catalog A



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6 of 26

### Reference

Siebel Order Management Guide: Creating and Managing Catalogs

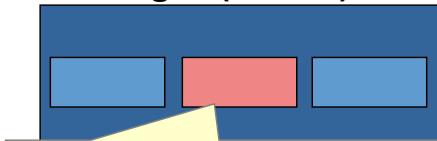


## Catalogs

Continued

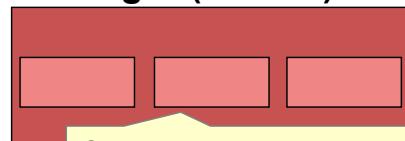
- May be declared public or private
  - ▶ Public catalogs are visible to all users
    - Categories within public catalogs may still be marked private
  - ▶ Private catalogs have their visibility limited to privileged groups known as access groups
- For example, a credit card documentation catalog might be public to allow users to see the service agreements and benefits
- However, a customer service documentation catalog might be private to restrict visibility to those with service agreements

**Catalog A (Public)**



A public catalog is visible to all users; individual categories within that catalog may still be marked private

**Catalog B (Private)**



Categories within private catalogs are private



## Catalog Types

- Are assigned to catalogs
  - ▶ Catalogs should have a catalog type
  - ▶ Seed catalog types include:
    - Infocenter
    - Buying
    - Partner
    - eService FAQ
    - Customer
    - Multiselect Checkbox
    - Training
    - Partner Program
    - Training Curriculum
- Are used when querying for master data



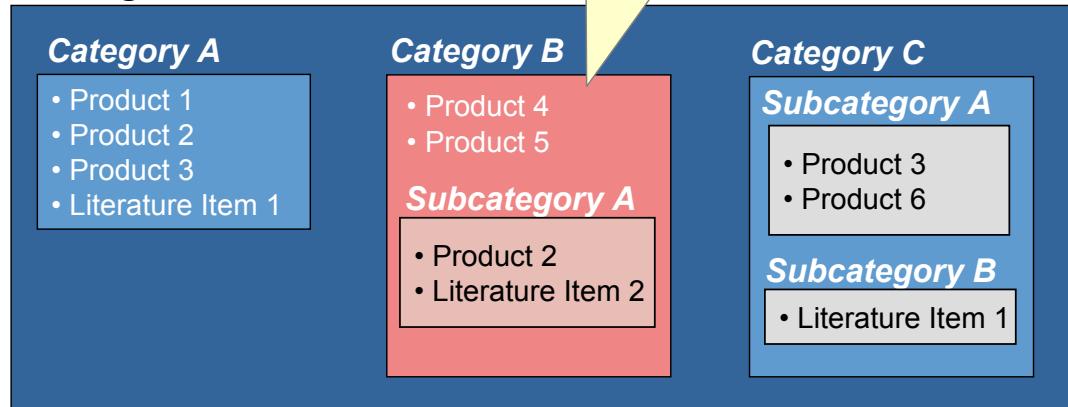
## Categories

- Are nodes in a catalog that contain:
  - ▶ Master data
  - ▶ Other categories
- Are not shared between catalogs
  - ▶ However, multiple catalogs may contain categories with the same name
- May be declared public or private
  - ▶ If a category is declared private, all of its subcategories are also private
  - ▶ Private categories also have their visibility limited to specified access groups

## Categories: Example

- Even though Category B and Category C both contain subcategories named Subcategory A, these two subcategories are distinct
- Since Category B is private, its Subcategory A is also private

### Catalog A





## Access Groups

- Are collections of positions, organizations, user lists, and households used to access private catalogs and categories
- Cannot contain individuals such as employees and users
  - ▶ To add an individual, create a user list with that individual as the only member

The screenshot shows the Siebel User Lists screen. At the top, there's a navigation bar with File, Edit, View, Navigate, Query, Tools, Help, and various icons. Below it is a toolbar with Home, Accounts, Contacts, Opportunities, Quotes, and Sales. The main area has tabs for User Lists, Menu, New, Delete, and Query. A callout box points to the 'User Lists' tab with the text: 'Create User Lists in the Administration – Group > User Lists screen and add them to access groups'. The table below shows three user lists: Administrator, Analytics (Executive) [ENU], Call Center Operations Rep, and Call Center [ENU]. The last row, 'Call Center [ENU]', is selected. The table columns are Last Name, First Name, User ID, Mr./Ms., and Job Title. The data rows are:

Last Name	First Name	User ID	Mr./Ms.	Job Title
Cheng	Casey	CCHENG	Ms.	Universal Agent (Ca
Miller	Lyncie	LMILLER		Siebel Universal Age
Lybrand	Sally	SLYBRAND		Call Center Manager

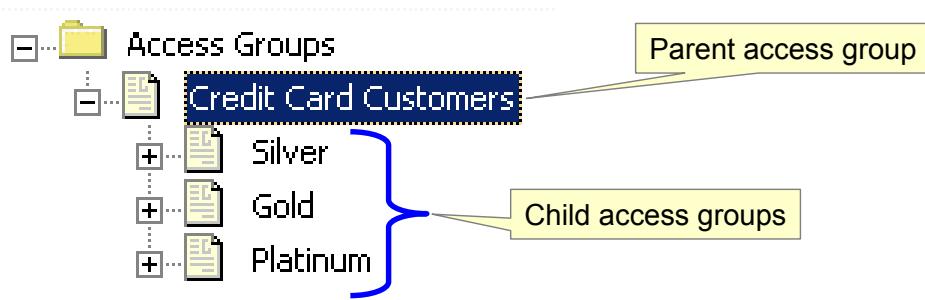
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11 of 26



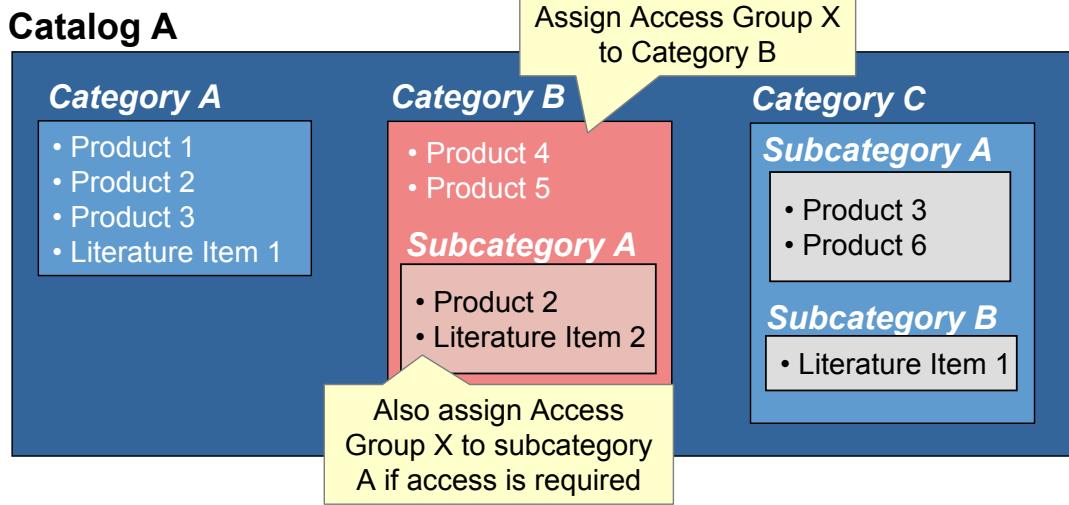
## Access Group Hierarchies

- Access groups can be organized into a hierarchy
  - ▶ Child access groups inherit all of the access granted to their parents, hence have more privileges than their parents
  - ▶ Useful for giving more privileged users greater access



## Access Control

- Assign access groups to catalogs or categories
  - ▶ Unlike customer data, individual records are not controlled
- Access groups must be assigned to every catalog or category to which they need access
  - ▶ Access is not inherited along the category hierarchy

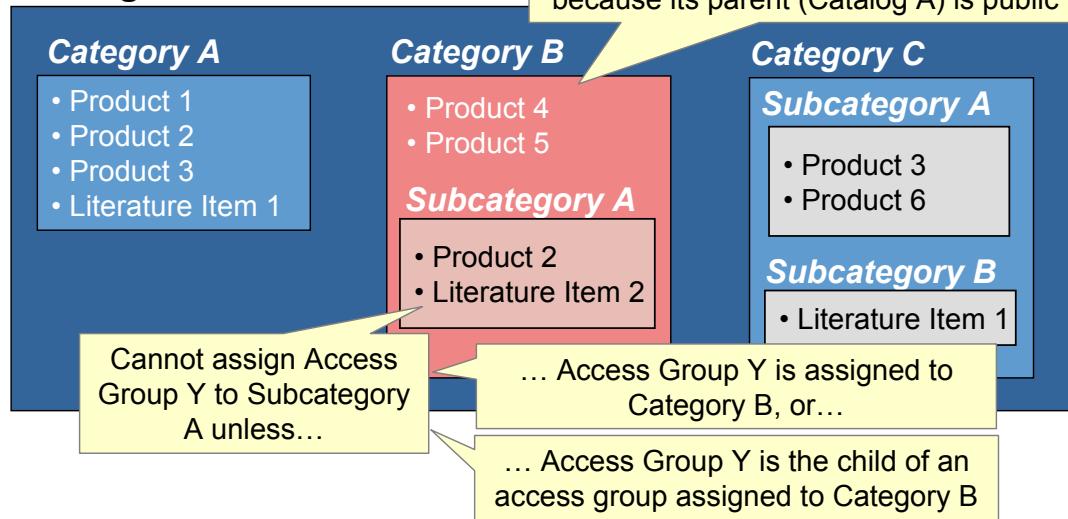


## Access Control

Continued

- An access group can only be added to a category if:
  - ▶ The access group is also assigned to the category's parent, or
  - ▶ The access group is a child of an access group assigned to the parent

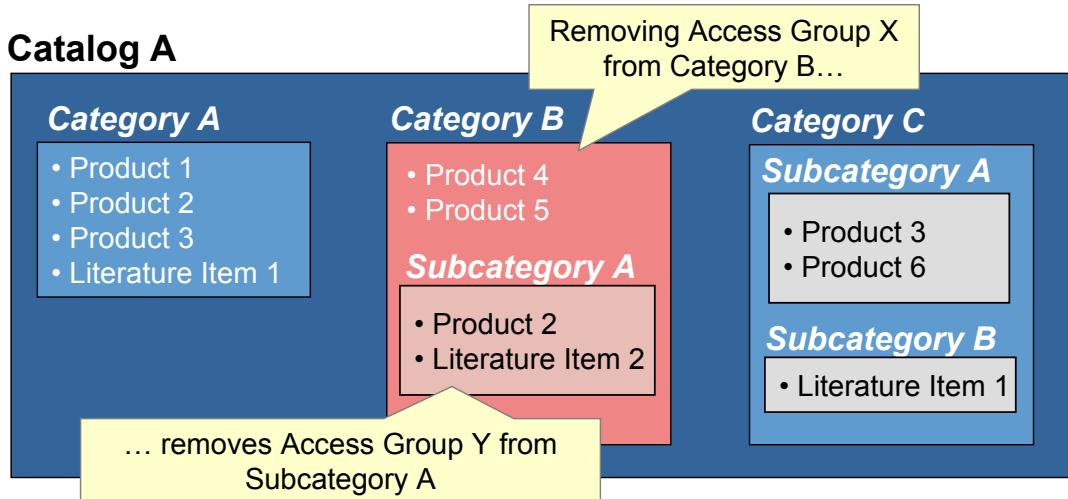
### Catalog A



## Access Control

Continued

- Removing a parent access group from a category also removes all child access groups from all subcategories
- Example: Suppose Access Group Y is a child of Access Group X



## Building a Catalog

1. Create the Catalog
2. Add Categories to the Catalog
3. Associate Master Data with Categories
4. Declare Catalogs or Categories Private
5. Create Access Groups
6. Assign Access Groups

## 1. Create the Catalog

- Navigate to Administration – Catalog > Catalogs
- Create a new catalog
  - ▶ Specify a name
  - ▶ Specify a catalog type
  - ▶ Specify other options

The screenshot shows the Siebel Catalog Administration screen. The top navigation bar includes File, Edit, View, Navigate, Query, Tools, and Help. Below the bar are various icons and a 'Saved Queries:' field. The main menu bar has tabs for Home, Accounts, Contacts, Opportunities, and Administration - Catalog, with 'Administration - Catalog' being the active tab. A sub-menu bar for Catalogs is open, showing New, Delete, and Query buttons. The main content area displays a table titled 'Catalogs' with columns: Name, Description, Catalog Type, Active, Private, and Sequence. A row for 'Credit Card Customers' is selected, showing 'Customer' in the Description column. Two callout boxes provide additional information: one pointing to the 'Active' column stating 'By default, the catalog is active; mark it as inactive to make it unavailable, for example, during updates'; and another pointing to the 'Sequence' column stating 'Specify sequence numbers to change the order in which catalogs appear'.

## 2. Add Categories to the Catalog

- Drill down on the catalog name in the Catalog view to navigate to the Categories view
- Add categories to the catalog

Catalog Administration

Name	Description	Catalog Type	Active	Private	Sequence
> Credit Card Customers		Customer	✓		

Drill down on a catalog to see its categories

Use buttons to promote and demote subcategories

Categories

Name	Display Name	Private	Sequence	Usage	Eff
Platinum	Platinum		3	10/1	
> Gold	Gold		2	10/1	
Silver	Silver		1	10/1	

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18 of 26

### 3. Associate Master Data with Categories

- Select the appropriate tab in the Categories view to add master data to a category

The screenshot shows the Siebel application's Catalog Administration module. At the top, there's a menu bar with File, Edit, View, Navigate, Query, Tools, and Help. Below the menu is a toolbar with various icons. The main header says "Catalog:" and "Administration - Catalog". The sub-header "Catalog Administration" is visible. The main content area is titled "Categories" and contains a table with columns: Name, Display Name, Private, Sequence, and Usage. The table lists categories like Platinum, Gold, and Silver, with their respective sub-categories Premium Customers and Regular Customers. A yellow callout box points to the "Literature" tab in the navigation bar at the bottom, which is highlighted in blue. The navigation bar also includes tabs for More Info, Access Groups, Catalog Translations, Smart Answer Settings, and others. Below the table, there's a summary row with columns: Name, Summary, Local, Request File, Size (In Bytes), and File Type. The status bar at the bottom left says "Copyright © 2007, Oracle. All rights reserved." and the bottom right says "19 of 26".

For example,  
select the  
Literature tab to  
add product  
literature

## 4. Declare Catalogs or Categories Private

- Set the Private flag at the catalog or category level to restrict data access
  - ▶ Subcategories are automatically marked as private

The screenshot shows the Siebel application interface with the 'Categories' view open. The 'Gold' category is selected and has its 'Private' checkbox checked. A callout box contains the following text: 'Marking the Gold category as private automatically causes the Premium and Regular Customers categories to be marked as Private'. The table below shows the category hierarchy and private status:

Name	Display Name	Private
Platinum	Platinum	✓
Gold	Gold	✓
Premium Customers	Premium Customers	✓
Regular Customers	Regular Customers	✓
Silver	Silver	1
Premium Customers	Premium Customers	✓
Regular Customers	Regular Customers	

## 5. Create Access Groups

- Navigate to Administration – Group > Access Groups
- Create the access group hierarchy as required
  - ▶ Create parents, then children
  - ▶ Specify parents for child records

The screenshot shows the Oracle Siebel application interface. The top navigation bar includes File, Edit, View, Navigate, Query, Tools, and Help. The main menu bar has tabs for Home, Accounts, Contacts, Opportunities, Quotes, Sales Orders, and Administration - Group. The current view is on the 'Access Groups' tab. On the left, there is a tree view of access groups under 'Credit Card Customers': 'Commercial Customers' is expanded, showing 'Residential Customers' as a child node. The main panel displays a table titled 'Access Groups' with two rows:

Name	Group Type	Parent Access Group
Commercial Customers	Access Group	Platinum Customers
Residential Customers	Access Group	Platinum Customers

A callout box points to the 'Parent Access Group' column of the 'Residential Customers' row, containing the text: 'Specify the parent access group when creating the child access group; this requires creating the parent first'.

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21 of 26

## 5. Create Access Groups Continued

- Add positions, organizations, or user lists to access groups

The screenshot shows the Siebel Access Group interface. In the main window, there is a table titled "Access Groups" with one record: "Platinum Customers" (Access Group, Parent Access Group: Credit Card Customers). A yellow callout box points to the "New" button in the toolbar with the text "Click New to add parties to an access group". Below the main window, a smaller window titled "Add Access Group Members - Microsoft Internet Explorer" is open, showing a list of parties: "Platinum Commercial Credit Card Customers" (User List) and "Platinum Customers" (User List). A yellow callout box points to the list with the text "Group type can be Position, Organization, User List, or Household".

## 6. Assign Access Groups

- Assign access groups to catalogs or categories
  - ▶ Use the Cascade button to automatically assign an access group to all child categories

The screenshot shows two overlapping Siebel application windows. The top window is titled 'Catalog Administration' and displays a 'Categories' list. It includes columns for Name, Display Name, Effective Start Date, Effective End Date, and Sequence. A yellow callout box points to the 'Cascade' button in the toolbar below the grid, with the text: 'Select an Access Group and click Cascade to assign that access group to all child categories'. The bottom window is titled 'Add Access Groups - Microsoft Internet Explorer' and shows a search interface for finding access groups starting with 'Platinum'. A yellow callout box points to the 'Parent Access Group' column in the grid, with the text: 'Add access groups using the Access Group tab under Categories or Catalogs'.

Name	Display Name	Effective Start Date	Effective End Date	Sequence
+ Gold	Gold	10/19/2006 9:59:45		2
> Platinum	Platinum	10/19/2006 9:59:30		3
Commercial Customers	Commercial Customers	10/19/2006 10:07:0		
Residential Customers	Residential Customers	10/19/2006 10:06:4		
		10/19/2006 9:59:52		1

Name	Access Group Type	Parent Access Group
Platinum Customers	Access Group	Credit Card Customers

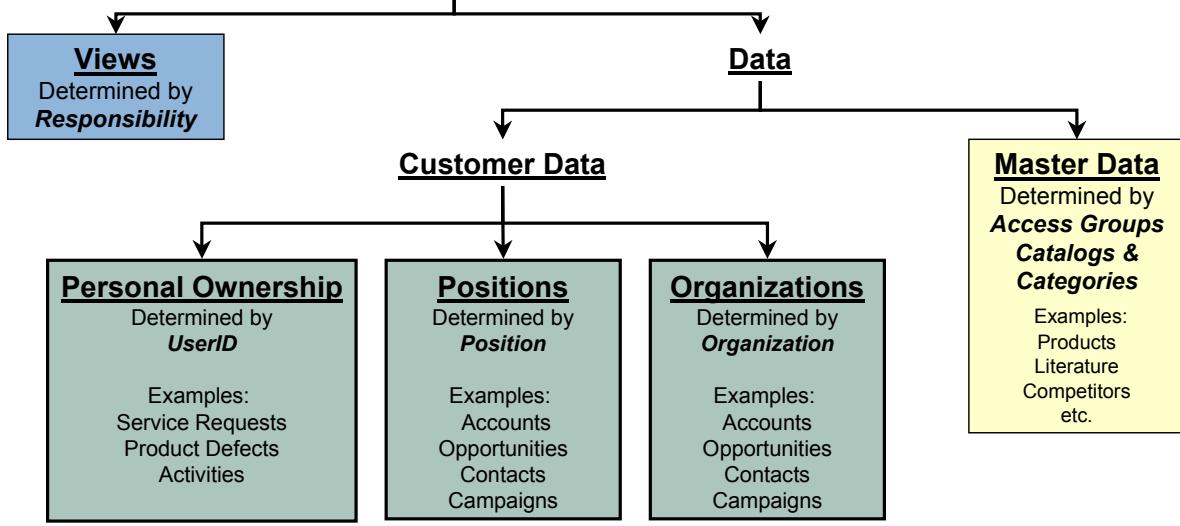
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23 of 26

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## Access Control Summary

### Access Control Controls access to



#### Customer Data

- Is dynamic and transactional (can be updated)
- Is created and managed by users of the application
- Access is controlled at the record level

#### Master Data

- Is static, read-only material to the end user
- Is created and maintained by company administrators
- Access is controlled at the Catalog and Category level

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24 of 26



## Module Highlights

- Master data is static, referential data such as product catalogs or product documentation
- Catalogs are containers for categories
  - ▶ Mark catalogs as private to restrict access to specific access groups
- Categories contain master data
  - ▶ Arranged in a hierarchy within the catalog
  - ▶ Mark categories as private to restrict access to specific access groups



## Lab

- In the lab you will:
  - ▶ Navigate catalogs, categories, and access groups
  - ▶ Restrict access to master data contained in categories

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***Siebel 8.0 Essentials***

## **Module 8: The Siebel Web Architecture**

**8**

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## Module Objectives

After completing this module you should be able to:

- ▶ Identify the pieces that make up the Siebel Web architecture
- ▶ Identify the role of each piece of the architecture
- ▶ Describe how Siebel requests are processed

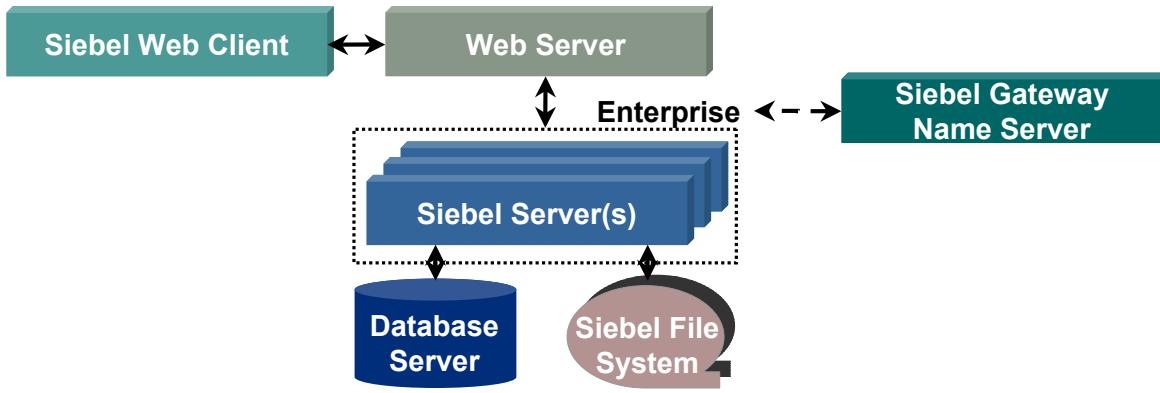
Why you need to know:

- ▶ Provides a foundation for understanding the relationship between the Siebel software components

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## Siebel Web Architecture Overview

- At a high level, the Siebel Web architecture consists of:
  - ▶ Siebel Web Clients that access and display the business data
  - ▶ A Gateway Name Server that stores configuration information
  - ▶ A Web server that handles interactions with the Web Clients and distributes requests to the Siebel Servers
  - ▶ Servers that manage the business data and provide batch and interactive services for clients
  - ▶ A relational database and file system that store business data



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3 of 20

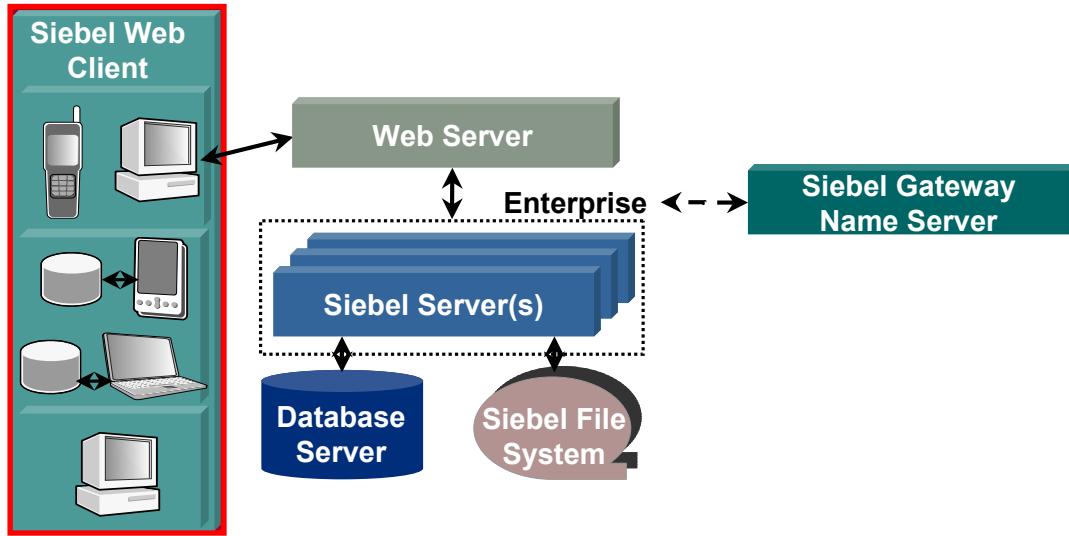
**Reference**

Siebel Deployment Planning Guide: Siebel Architecture Overview

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## Siebel Web Client

- Displays 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 (PDAs)



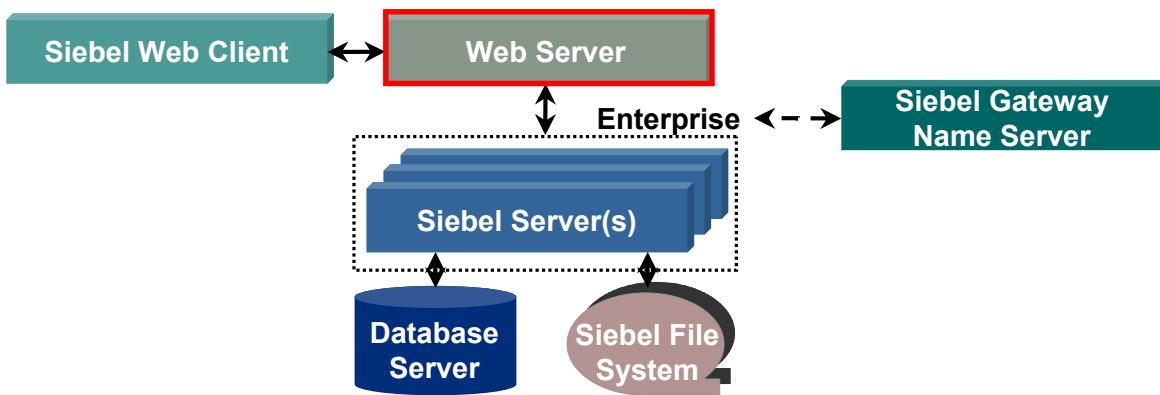
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## Web Server

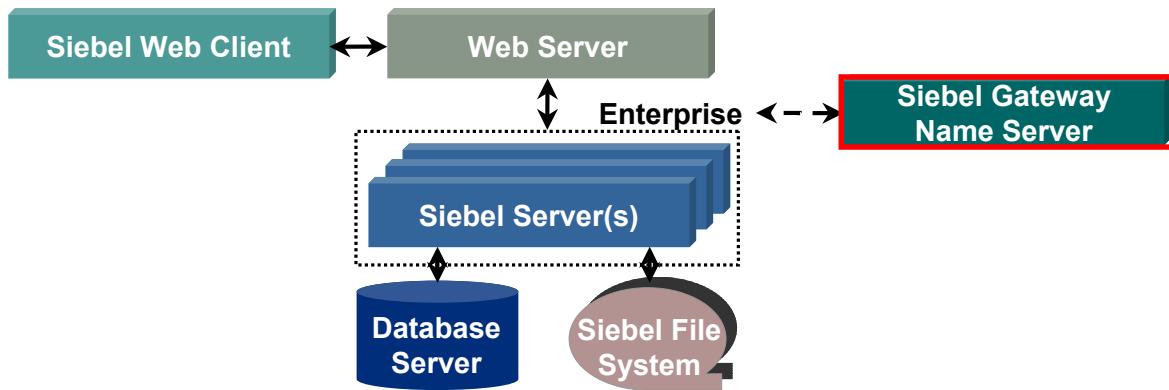
- Identifies and passes Siebel requests from Siebel Web Clients to the Siebel Servers
- Passes completed HTML application pages back to Siebel Web Clients
- Provides load balancing for multi-server installations
  - ▶ Supports either built-in or third-party load balancing



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## Siebel Gateway Name Server

- Is a Windows service or UNIX daemon process
- Stores component definitions and assignments, operational parameters, and connectivity information
  - ▶ For example, connect strings to query servers for server/component availability
  - ▶ Information stored in siebns.dat file on Gateway Name Server



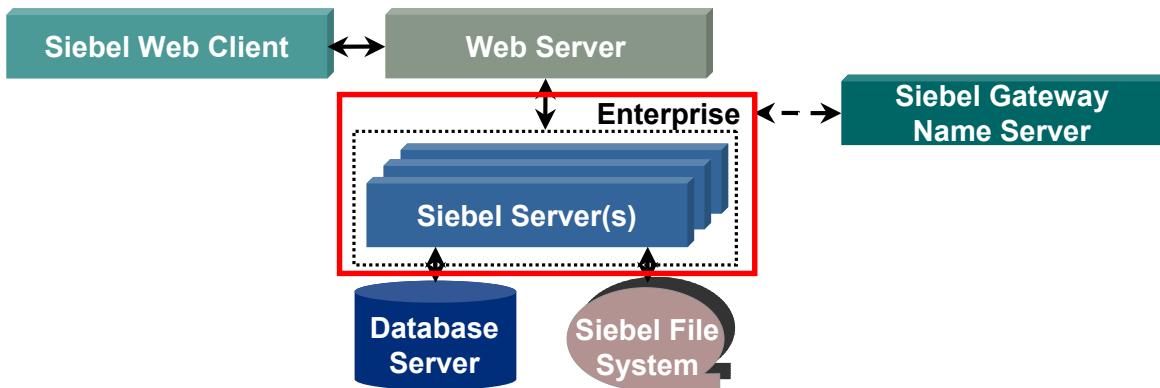
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## Siebel Enterprise

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



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7 of 20

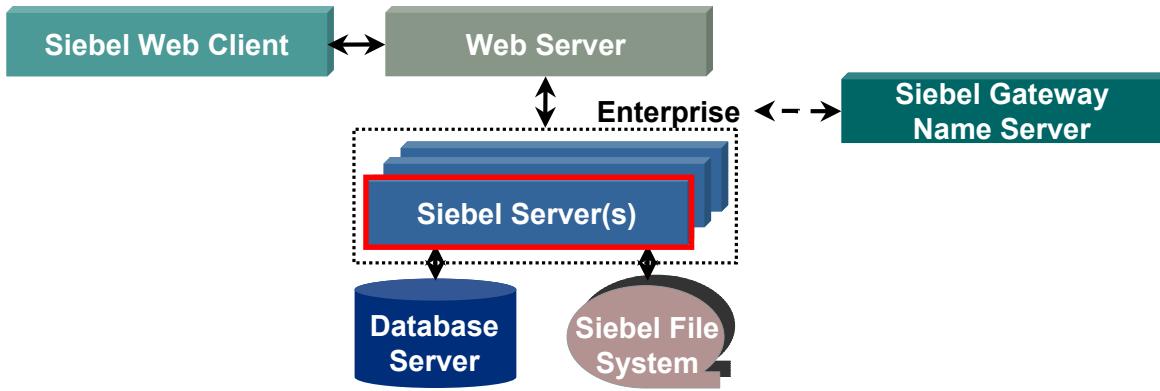
### File System Partitioning

In Siebel 8, the file system may be partitioned over multiple directories and machines.

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## Siebel Servers

- Execute tasks to manage the business data
  - ▶ Programs known as server components perform specific functions or jobs for the server
  - ▶ For example:
    - Importing and exporting data
    - Configuring the database to monitor for user-defined conditions
    - Processing of client requests
  - ▶ Tasks may run interactively, in the background, or as batch jobs



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8 of 20

<b>Interactive Tasks</b>	Interactive tasks wait for input from the user, such as the Siebel Web Client running Siebel Call Center.
<b>Background Tasks</b>	Background tasks always show as running and periodically perform system functions, such as invoking workflows or performing assignments.
<b>Batch Jobs</b>	Batch jobs run once, either when scheduled or when invoked by an administrator, for example, to perform data imports or exports.



## Examples of Server Components

- The application object manager (OM) is a server component that provides the environment in which Siebel user sessions run
  - ▶ Users interact with an application-specific OM; for example, the Siebel Call Center Object Manager (SCCOBJMgr)
  - ▶ Runs in interactive mode
- The Workflow Monitor Agent periodically checks the system to determine whether workflows or assignments need to be run
  - ▶ Runs in background mode
- Enterprise Integration Manager performs data imports and exports
  - ▶ Runs in batch mode

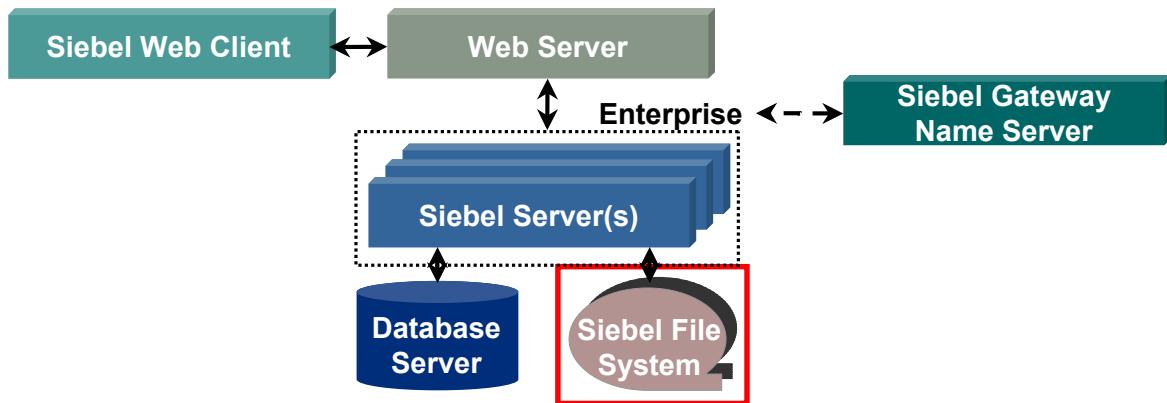
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9 of 20

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## Siebel File System

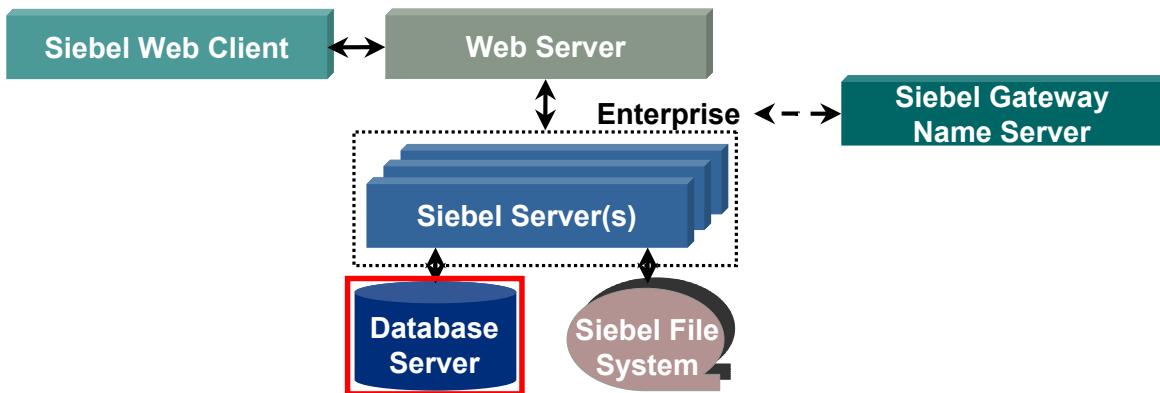
- Is one or more shared directories that store files used by Siebel applications
  - ▶ Files are compressed in a proprietary format to save space and provide security
  - ▶ Examples: Product literature, sales tools, presentations, user profiles





## Database Server

- Stores data used by Siebel applications in a predefined database schema
  - ▶ Single database for Enterprise provides data consistency for users
  - ▶ Data is accessed by components through a data manager layer
- Supports a variety of third-party relational database management systems (RDBMS)



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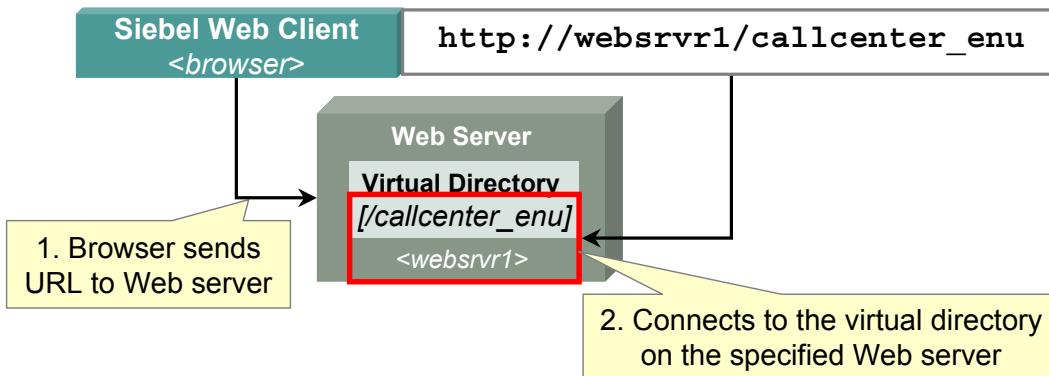
11 of 20

**Supported RDBMSes** See the Siebel System Requirements and Supported Platforms document for a list of supported RDBMSs.

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## Web Usage Login Scenario

- Siebel Web Client (browser) sends the URL to the Web server
  - ▶ URL specifies:
    - Either HTTP or HTTPS protocol
    - Web server machine name
    - Application and language
- URL initially connects to a Siebel-specific virtual directory on the Web server
  - ▶ Virtual directories are created as part of the Siebel installation



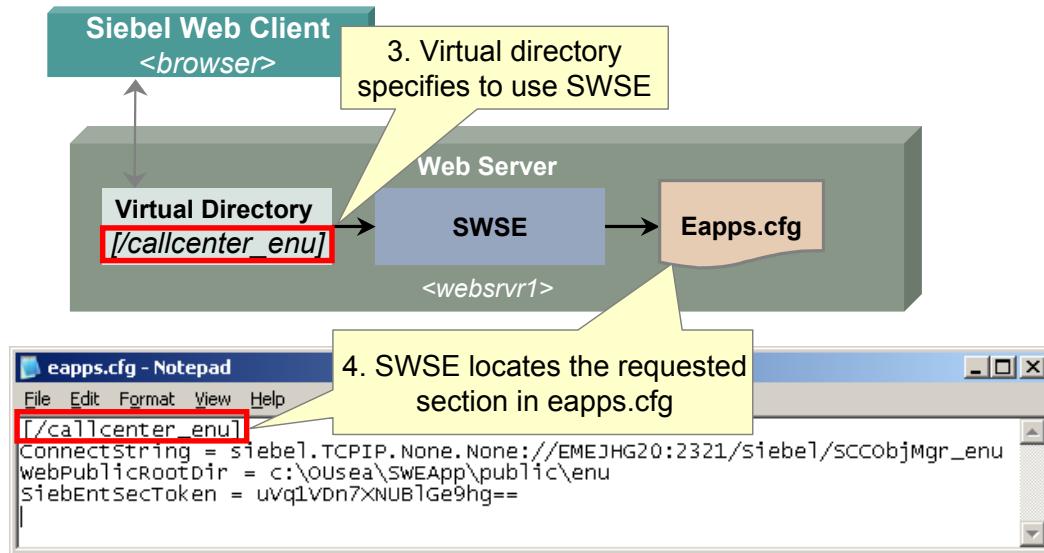
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12 of 20

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## Web Usage Login Scenario Continued

- Virtual directory forwards request to the Siebel Web Server Extension (SWSE) installed on the Web server
- SWSE uses the eapps.cfg configuration file to obtain connection parameters



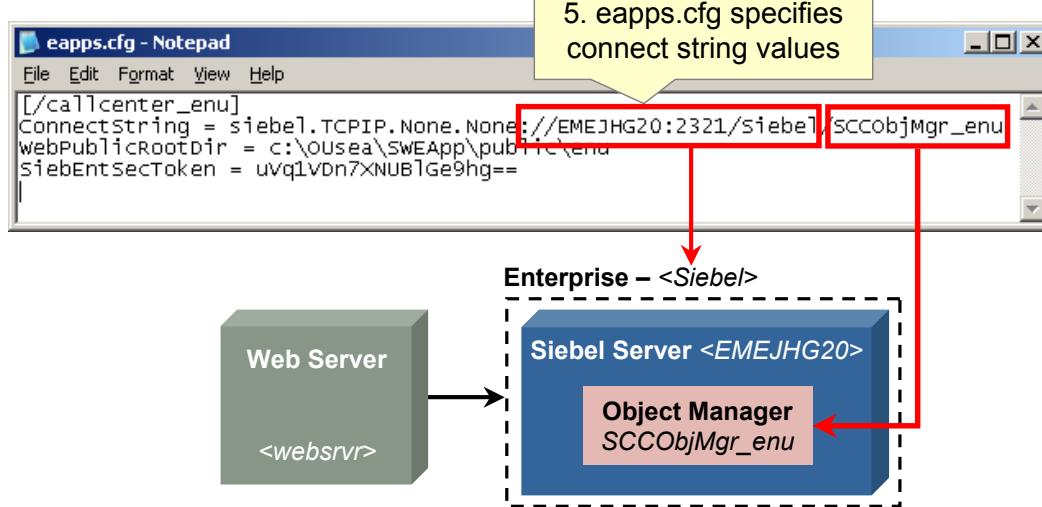
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## Web Usage Login Scenario Continued

- Eapps.cfg specifies the location of the server, server connection broker port, Enterprise, and Object Manager information for initial connection
  - ▶ For multi-server installations provides load balancing information
  - ▶ Also provides generic login information for initial “anonymous” access to database



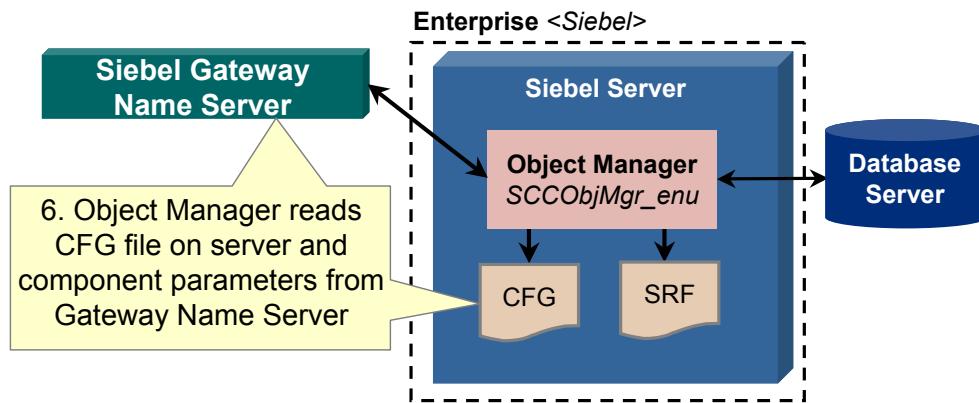
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## Web Usage Login Scenario Continued

- Object Manager reads an application-specific configuration file and component parameters, which specify the application, the location of the Siebel Repository File (SRF), and so forth
  - ▶ Siebel Repository File is a separate binary file that defines one or more Siebel applications
    - Discussed in greater detail in subsequent modules
  - ▶ Most configuration information is specified by component parameters rather than in the configuration file



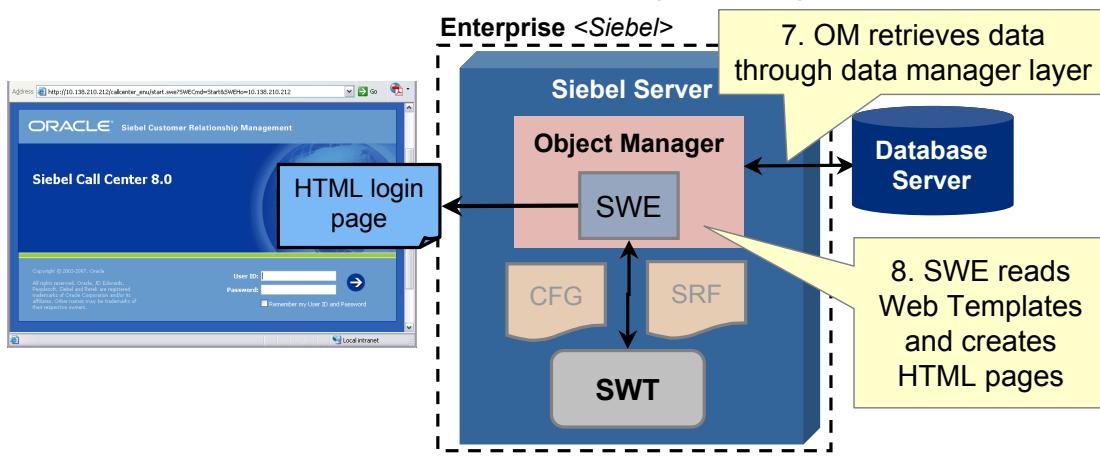
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## Web Usage Login Scenario Continued

- Object Manager retrieves data through data manager
- The Siebel Web Engine (SWE), part of the Object Manager, reads a set of Web templates that are stored on the Siebel Server and creates HTML pages for the data requested
  - ▶ Siebel Web Templates (SWT) are a set of template files that specify how to render the UI in the user's browser
  - HTML files with embedded Siebel tags defining content



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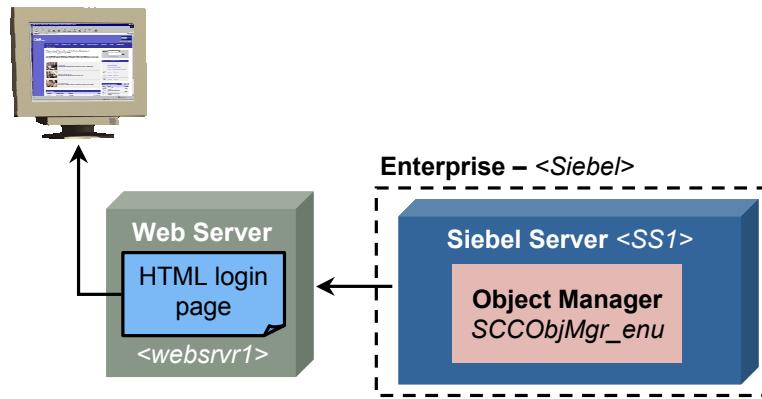
16 of 20

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## Web Usage Login Scenario Continued

- The Object Manager sends the completed Web page to the Web server, which passes it back to the Siebel Web Client

Siebel Call Center



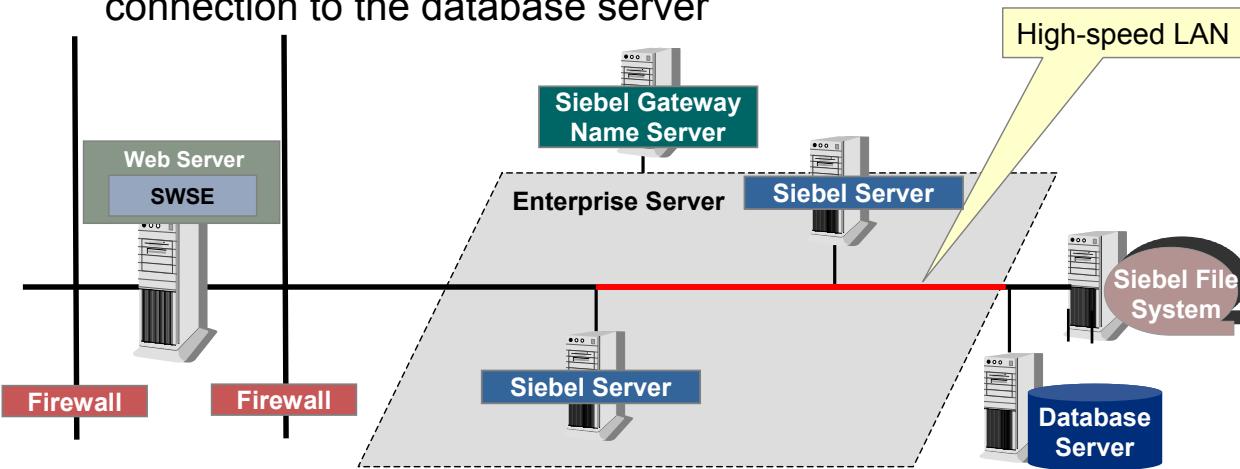
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17 of 20

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## Physical Architecture

- The Siebel Gateway Name Server, Siebel Server, database server, and File System can be implemented on one machine or spread across multiple machines
  - ▶ SWSE can be on that machine for development or test environments
- The Siebel Server(s) should have a high-speed LAN connection to the database server



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18 of 20

### Recommended Practice

For development or test environments (such as we use in this classroom), it is possible to bundle the entire application on a single machine.

For production environments, the recommended practice is to have the Database Server, SWSE, and Siebel Enterprise on separate machines.



## Module Highlights

- A Siebel Web Client displays the Siebel application in a standard Web browser
- A Siebel Web Server is a third-party Web server with the Siebel Web Server Extension (SWSE) installed and the Siebel application virtual directories created
- A Siebel Gateway Name Server stores parameters and connection information for Siebel Servers
- A Siebel Enterprise is a logical collection of Siebel Servers
- A Siebel Server is a set of processes that manage processing for all Siebel clients



## Lab

- In the lab you will:
  - ▶ Examine the virtual directories and eapps.cfg
  - ▶ Verify the information contained in the files against information retrieved from the application



**Siebel 8.0 Essentials**

## **Module 9: Server Components and Parameters**

**9**

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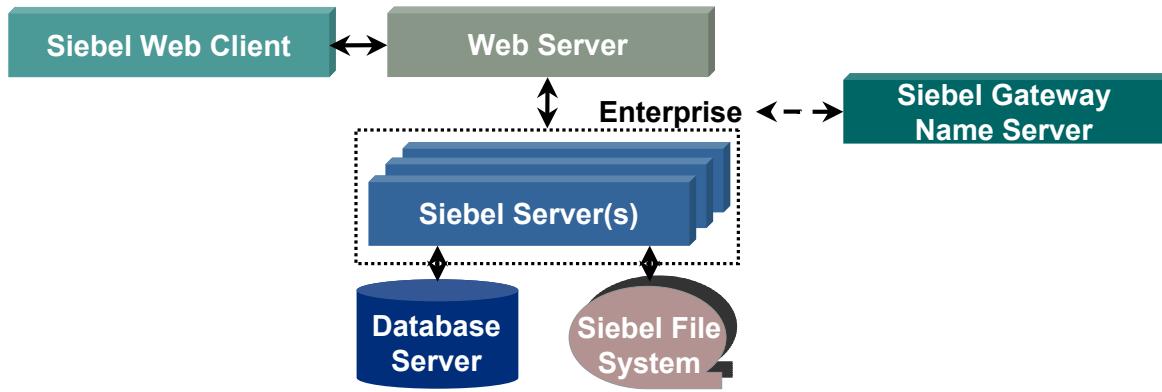
## Module Objectives

- After completing this module you should be able to:
  - ▶ Define component groups
  - ▶ Define components
  - ▶ Describe parameters as inputs for components
  - ▶ Describe the various levels at which you can set parameters and how to set them
  - ▶ Describe named subsystems and job templates
- Why you need to know:
  - ▶ Server behavior is controlled by components and parameters, hence an understanding of how to find and configure them is essential



## Review: Siebel Web Architecture

- The Siebel Web architecture consists of a Web Client, Web server, Gateway Name Server, and Enterprise containing one or more Siebel Servers
  - ▶ Each Siebel Server includes its own set of components: programs that run on the server to provide application functionality



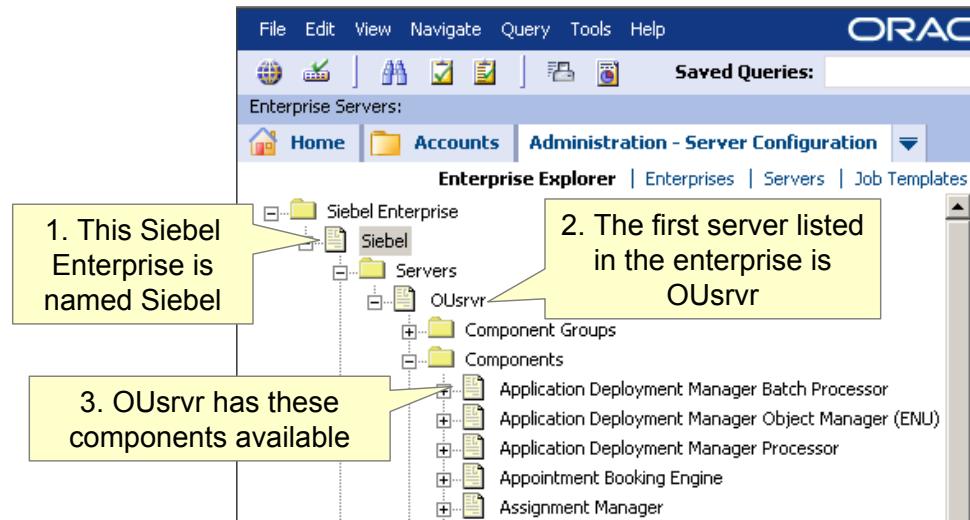
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3 of 22



## Examining the Siebel Enterprise

- View the Siebel Enterprise hierarchy using the Enterprise Explorer View of the Server Administration – Configuration screen





## Component Groups

- Are logical groupings of components
  - ▶ Components are enabled or disabled in groups
- Support major functional areas of the application
  - ▶ For example, Siebel Call Center, Siebel Remote, or Assignment Management

The screenshot shows the Siebel System Administration Guide interface. On the left, the Enterprise Explorer pane displays a hierarchical tree structure under 'Siebel Enterprise' for 'Siebel'. Under 'Siebel', there are nodes for 'Servers', 'Component Groups', 'Application Deployment Manager', 'Assignment Management', 'Auxiliary System Management', 'Communications Management', and 'Content Center'. A callout box points to this pane with the text: 'The Enterprise Explorer lists the available component groups'.

The main pane is titled 'Enterprise Component Groups'. It contains a table with the following data:

Component Group	Alias	Number of Components	Enable state
Application Deployment Manager	ADM	3	Enabled
Assignment Management	AsgnMgmt	2	Enabled
Auxiliary System Management	SystemAux	5	Enabled
Communications Management	CommMgmt	8	Disabled
Content Center	ContCtr	2	Disabled

A callout box points to this table with the text: 'The detail pane provides additional information such as the number of components in each group'.

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5 of 22

### Reference

Siebel System Administration Guide

0/3



## Enabling and Assigning Component Groups

- There are three steps to enable a component group on a server:

1. Enable the Component Group for the Enterprise
2. Assign the Component Group to the Server
3. Enable the Component Group on the Server

## 1. Enable the Component Group for the Enterprise

- Click the Enable or Disable buttons in the detail pane of the Enterprise Explorer to enable or disable component groups
  - ▶ By default, most component groups are enabled for the enterprise
  - ▶ Components within disabled component groups are not available on any of the servers in the enterprise
- Best Practice: Disable component groups which will never be used on any server
  - ▶ Enabled component groups take a small amount of resources on the Siebel Gateway Name Server

Click the appropriate button to Enable or Disable a component group for the enterprise

Component Group	Alias	Number of Compn	Enable state
Field Service	FieldSvc	9	Enabled
Marketing Server	MktgSrv	1	Enabled
PIM Server Integration Management	PIMSI	2	Disabled
Application Deployment Manager	ADM	3	Enabled
Workflow Management	Workflow	6	Enabled

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## 2. Assign the Component Group to the Server

- In Administration – Server Configuration > Enterprises, select the component group and server and click Assign
  - ▶ Stores component group information on the Siebel Gateway Name Server
  - ▶ Allocates memory for the component group on the Siebel Gateway Name Server

The screenshot shows the Oracle Siebel Server Configuration interface. The top navigation bar includes Home, Accounts, Contacts, Opportunities, Quotes, Sales Orders, Service, Administration - Server Configuration, Enterprise Explorer, Enterprises, Servers, and Job Templates. The main menu is set to 'Enterprises'. The 'Enterprise Servers' tab is selected, showing a list of servers including 'Siebel' (selected) and 'Siebel Enterprise Server'. A callout box labeled '1. Select component group to assign' points to the 'Component Groups' tab. The 'Component Groups' table lists 'PIM Server Integration Management' (selected) and 'PIMSI'. A second callout box labeled '2. Select server' points to the 'Component Group Assignments' table, which lists 'OUsrvr' (selected). A third callout box labeled '3. Click Assign' points to the 'Assign' button in the toolbar of the 'Component Group Assignments' table. The bottom status bar indicates 'Copyright © 2007, Oracle. All rights reserved.' and '8 of 22'.

### 3. Enable the Component Group on the Server

- Once you have assigned a component group to a server, enable or disable it on the server
  - ▶ By default, assigning a component group automatically enables it
- Best practice: Assign and disable component groups that you are not using now but may use in the future on that server
- Select the desired server and click the Enable or Disable button
  - ▶ Enabling allocates memory on the server for that component group
  - ▶ The component group is now available to the server

**Enterprise Server Description**

Siebel Siebel Enterprise Server

Component Groups | Component Definitions | System Alerts | Profile Configuration | Parameters | Synchronize

Component Group	Alias	Number of Comp	Enable state
PIM Server Integration Management	PIMSI	2	Enabled

Components | Menu | New | Query | 1 - 2 of 2 |

Component	Alias	Description
PIMSI Dispatcher	PIMSIDispatcher	Executes real-time Business
PIMSI Engine	PIMSIEng	Executes real-time Business

Component Group Assignments | Menu | Query | Assign | Unassign | Enable | Disable

Server	Assigned?	Enabled on Server?
OUsrvr	✓	

Click Enable to enable the selected component group on the selected server

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9 of 22



## Synchronize Components

- Synchronize components after enabling or disabling a component group that includes batch components
  - ▶ Registers batch components with the Siebel Gateway Name Server
  - ▶ Makes these components available to the Siebel Enterprise
- Also possible to synchronize individual components

File Edit View Navigate Query Tools Help

powered by SIEBEL

Saved Queries:

Synchronize:

Home Accounts Contacts Opportunities Administration - Server Configuration

Enterprise Explorer | Enterprises | Servers | Job Templates

Enterprise Servers | Menu | Backup Enterprise

1 - 1 of 1

Enterprise Server Description

Siebel Siebel Enterprise Server

Component Groups Component Def

Synchronize

No Records

Component Alias Component Type Enabled? Business Service Description

Prior to initial synchronization, no components are available to run batch jobs

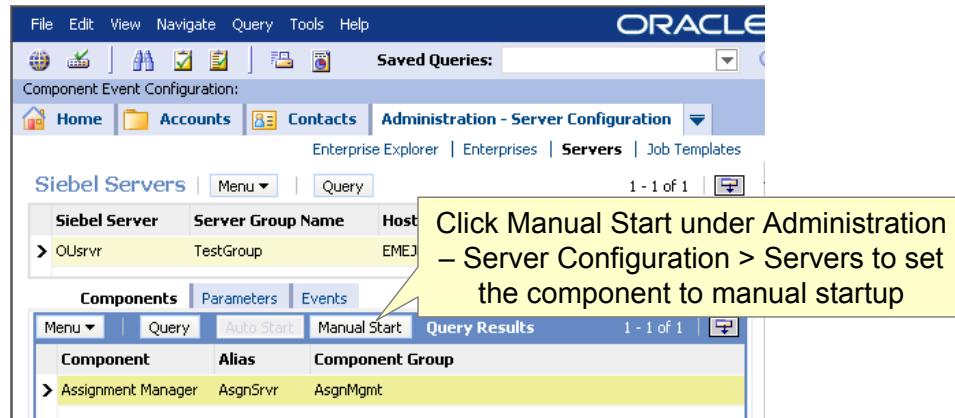
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10 of 22

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## Manage Individual Components

- Specify startup behavior for individual components
  - ▶ Auto Start: The component automatically starts up when the Siebel Server service starts
  - ▶ Manual Start: The component must be started manually
    - Prevents component from consuming memory or processor time until it is needed



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11 of 22



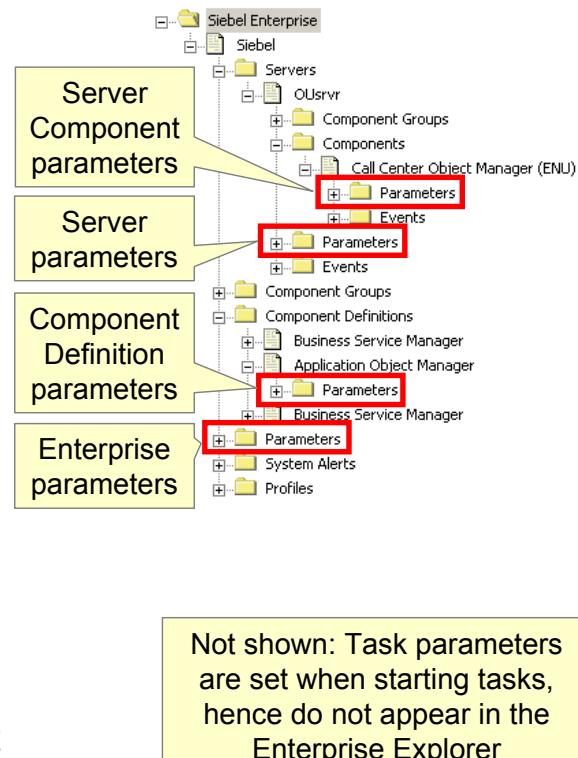
## Executing Components

- When a component executes, it is called a task
  - ▶ Multiple instances of the same component may run simultaneously
- Components execute in one of three modes:
  - ▶ Batch components run once until completion
    - Batch component executions are also called jobs
    - Usually initiated by user action, event, or workflow
    - For example, data loads or database extracts
  - ▶ Background components run continuously in the background
    - Periodically “wake up” and execute
    - For example, transaction processor for tracking changes to the database
  - ▶ Interactive components run in response to client requests
    - For example, application object managers



## Component Parameters

- Are input arguments for tasks
- Are set at one of five levels:
  - ▶ Enterprise parameters are set throughout the enterprise
  - ▶ Server parameters are set at the individual server level
  - ▶ Component Definition parameters are specific to a component, but enterprise-wide
  - ▶ Server Component parameters allow a server to override a component definition
  - ▶ Task parameters are for an individual component when it is run



Not shown: Task parameters are set when starting tasks, hence do not appear in the Enterprise Explorer

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13 of 22

### Examples

The language code, ODBC data source name, and communication parameters are enterprise parameters.

The location of the server log file is a server parameter.

The sleep time for a background component that runs periodically is a component definition parameter.

Change the server component parameter to change that sleep time for one particular server.

The user ID of a mobile user to extract is a task parameter.

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## Hidden and Advanced Parameters

- More advanced parameters are classified as hidden or advanced
- Click the appropriate button to see these parameters
- Click the Reset button to return to the normal set of parameters

Click Advanced or Hidden to see advanced or hidden parameters

Parameter	Value	Default Value
Business Object Cache Size	JAVA	JAVA
JVM Subsystem Name	100	100
Maximum Page Size	False	false
Enable Memory Metrics for EAI		

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## Component Definitions

- Are sets of parameters associated with a component to determine its behavior when it is run
  - ▶ Set enterprise-wide, so that the component performs the same no matter which server it is run on
- Reconfigure definitions to modify component behavior
- Duplicate definitions to create new component definitions
  - ▶ Creates a duplicate component with a new name and a different set of input parameters

The screenshot shows the Siebel Enterprise interface. On the left is a tree view of 'Enterprise Servers' under 'Siebel Enterprise'. The main window is titled 'Component Parameters' and displays a table of parameters:

Parameter	Value
Business Object Cache Size	JAVA
JVM Subsystem Name	JAVA
Maximum Page Size	100
Enable Memory Metrics for EAI	False

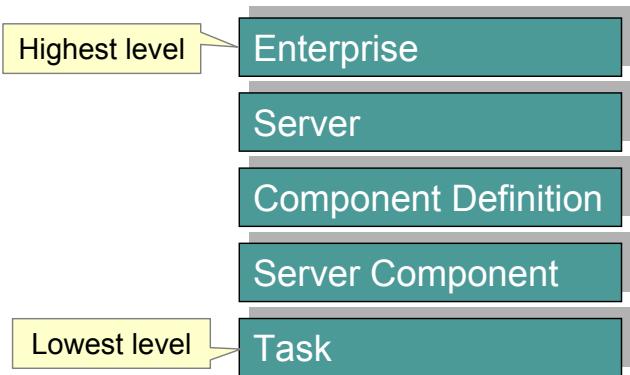
A yellow callout box with a black arrow points from the right side towards the table, containing the text: 'Modify parameters or duplicate a definition to create a new component with different set of parameters'.

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15 of 22

## Parameter Inheritance

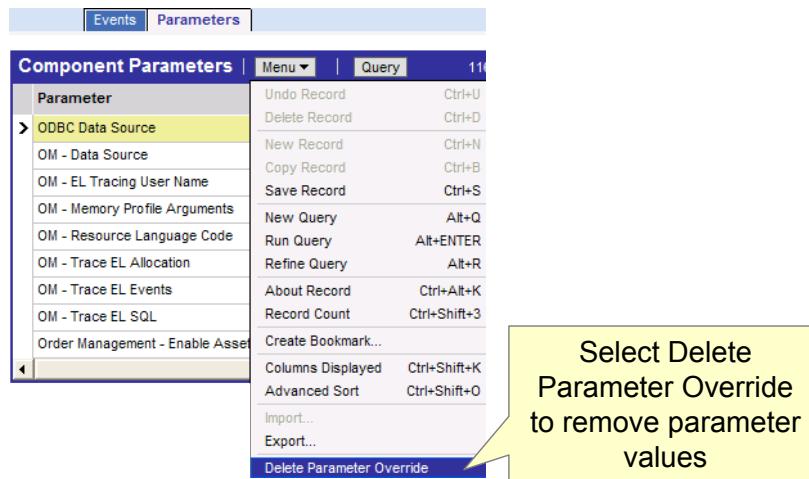
- Parameters are set at any of five levels
  - ▶ Parameters set at any level are inherited at all lower levels
    - For example, parameters set at the **enterprise** level are inherited for the levels below it
  - ▶ Parameters set at any level override parameters set at a higher level
    - For example, parameters set when starting a **task** override those set at higher levels



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## Removing Parameters

- Do not attempt to delete parameters by setting their value to zero or null
  - ▶ Causes zero or null value to be passed to component
- Use Delete Parameter Override to remove parameter settings at a given level



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17 of 22



## Profiles

- Are sets of parameters that may be used by multiple components
  - ▶ Also referred to as “named subsystems”
- Are edited to modify behavior of multiple components

The screenshot shows the Siebel Enterprise Server Description screen under the Profile Configuration tab. A callout box highlights the 'Administrator Email Alerts' profile, stating: "For example, the set of parameters used to send email alerts to administrators is used by multiple components". Another callout box highlights the 'Administrator email addresses' parameter in the Profile Parameters table, stating: "Modify the profile parameters to change the behavior of all components using this profile".

Parameter	Alias	Data Type	Value	Description
Administrator email addresses	AdminEmailAddress	String	CHANGE_ME	Email address list for the administrator's to be notified (comma delimited)
Dll Name	DLLName	String		
From Address	FromAddress	String		
SMTP Server Port Number	SMTPServerPort	Integer		
SMTP Server Name	SMTPServer	String		
Additional Message	Message	String		Additional message to be sent with the notification email

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18 of 22

### Profiles and Parameters

Parameters set in Profiles override those set at the Enterprise, Server, or Server Component level.



## Job Templates

- Job templates are predefined sets of parameters for use with batch components
  - ▶ Recall: When a batch component is executed it is called a “job”
- Multiple job templates can exist for the same component
  - ▶ For example, weekly assignments versus daily assignments
    - Both assignment jobs run the same component; only the set of input parameters is different
- Unlike profiles, job templates are specific to a single component

For example, a job template containing parameters for a weekly batch assignment job

The screenshot shows two Siebel application windows. The top window is titled 'Job Templates' and displays a table with one row. The row for 'Weekly Batch Assignment' (WkBBatch) has 'Component' set to 'Assignment Manager' and 'Business Service' set to 'AsgnSrvr'. A tooltip over this row states: 'This job template is specific to the Assignment Manager component'. The bottom window is titled 'Job Parameters' and also displays a table with one row. The row for 'Assignment Mode' (AsgnMode) has 'Value' set to 'Assign'. A tooltip over this row states: 'Type of Assignment (Match, Assign, MatchAssign, Denorm, or Both)'.

Name	Short Name	Component	Component Type	Business Service	Enabled?	Description
Weekly Batch Assignment	WkBBatch	Assignment Manager	AsgnSrvr		✓	Runs assignment manager weekly

Name	Abbreviation	Value
Assignment Mode	AsgnMode	Assign
Assignment Type	AsgnType	People

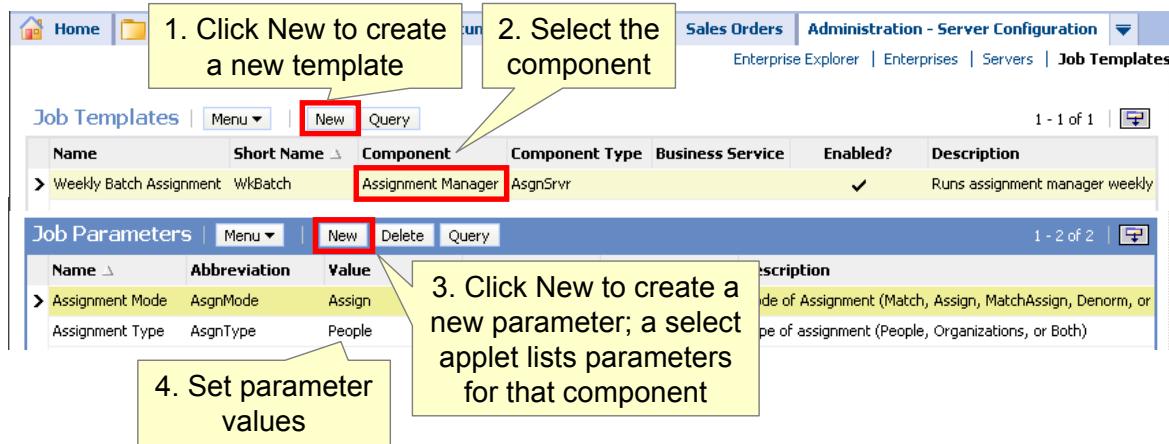
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19 of 22

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## Job Templates Continued

- Create job templates by specifying the batch component to be used and entering the job-specific parameters
  - ▶ Located under Administration – Server Configuration > Job Templates



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20 of 22



## Module Highlights

- Component Groups are logical groupings of server components
- Enable component groups on the enterprise, assign them to a server, and enable them on that server
- Set individual components to automatic or manual start up
- Set component parameters at one of five levels: Enterprise, Server, Component Definition, Server Component, or Task
  - ▶ Parameter values are inherited from higher levels
  - ▶ Use Delete Parameter Override to restore inheritance
- Profiles are sets of parameters used by multiple components
  - ▶ Also known as “named subsystems”
- Job templates are sets of parameters used to execute batch components



## Lab

- In the lab you will:
  - ▶ Use the Enterprise Explorer to examine component groups, components, and parameters
  - ▶ Examine parameter inheritance
  - ▶ Enable a component group on a server



*Siebel 8.0 Essentials*

## Module 10: Server Management

10

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10



## Module Objectives

- After completing this module you should be able to:
  - ▶ Monitor the state of the enterprise, and individual servers and components within that enterprise
  - ▶ Perform routine administrative tasks on the enterprise, including:
    - Managing components
    - Backing up and restoring the enterprise
    - Setting logging options
    - Submitting jobs
- Why you need to know:
  - ▶ These administrative tasks must frequently be performed while configuring and testing a deployment



## Server Administration

- Once components have been enabled and their parameters have been defined, perform common administration tasks:
  - ▶ Monitor the system
  - ▶ Change component parameters or component states, preferably without shutting down the server
  - ▶ Back up the system after making these changes
  - ▶ Submit batch jobs for processing
- Perform these tasks using the Administration – Server Management screen
  - ▶ A command-line interface is also available
    - Useful for using scripts to interact with the enterprise

```
C:\SUsea\siebsrvr\BIN>srvmngr /g SiebSrvr /e Siebel /u SADMIN /p SADMIN
```

**Reference**

Siebel System Administration Guide: Using the Siebel Server Manager Command-Line Interface

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## Server Groups

- Add servers to a Server Group using the command-line tool:  
`change attribute groupname=<group name> for server <server name>`
- Connect to all servers in the group simultaneously:  
`srvrmgr /g <gateway> /e enterprise /z <group name> /u <user> /p <password>`
- Performing groupwide manipulations such as changing parameters:  
`change parameter NotifyHandler=newHandler`
  - ▶ Changes the parameter for all servers in the server group

```
srvrmgr:OUsrvr> change attribute groupname=TestGroup for server OUsrvr  
Command completed successfully.
```

Adding a server to a server group allows you to manipulate all servers in that group simultaneously from the command line interface



Siebel Server	Server Group Name	Host Name	Install Directory
OUsrvr	TestGroup	EMEJHG20	C:\OUseal\siebsrvr



## Monitor the Enterprise

- Monitor the enterprise from the Administration – Server Management screen
  - ▶ Provides status icons for servers, components, jobs, tasks, sessions, and the enterprise

The screenshot shows the Oracle Siebel Server Management interface. It features three main tabs: Servers, Components, and Tasks. The Servers tab is currently active, displaying a list of servers. One server, 'Siebel', is listed with the description 'Siebel Enterprise Server'. The Components tab shows a list of components for the Siebel server, including 'Assignment Manager', 'Batch Assignment', and 'Call Center Object Manager (ENU)'. The Tasks tab is also visible. A yellow callout box points to the 'Administration – Server Management > Enterprises' section of the interface.

Administration – Server Management > Enterprises shows the states of servers and their components within the enterprise

State (Icon)	Component	Running Tasks	Running MTS	Max
Yellow	Assignment Manager	0	1	1
Yellow	Batch Assignment	0		
Yellow	Call Center Object Manager (ENU)	3	1	1

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5 of 26

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## Monitor Sessions

- Use the Session Monitor to monitor users logged in and their current activity
  - ▶ Sessions are tasks running the associated Object Manager
- Navigate to Administration – Server Management > Sessions

State (Icon)	PID	Session ID	Component	OM Login	Task Hung State	State	OM Applet
>		12582952		SCCOBJMgr_enu	MWEST		Running
>		12582948					

State Value	Type	Current Value
Applet Name	String	Completed: Account List Applet (ExecuteQuery)
Business Component	String	InfraObjMgr
Business Service	String	Current Business Component
Database Login Id	String	InfraObjMgr
Query Cancel Status	String	Current Business Service
		Database Login id for the current user
		Current status of any active query cancel

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6 of 26

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## Manage Component States

- Manage components across the entire enterprise from the Administration – Server Management > Components screen
- Manage components on a particular server from the Administration – Server Management > Servers screen
- In either case, components may be paused, resumed, started up, or shut down

The screenshot shows the Siebel application interface with a blue header bar containing 'File', 'Edit', 'View', 'Navigate', 'Query', 'Tools', and 'Help'. Below the header is a toolbar with various icons. The main menu bar includes 'Queries:' and 'powered by SIEBEL'. Underneath the menu bar, there's a 'Component Task:' section with links to 'Home', 'Accounts', 'Contacts', 'Opportunities', 'Quotes', and 'Administration - Server Management'. The 'Administration - Server Management' link is highlighted. Below this is a navigation bar with tabs: 'Servers', 'Components' (which is selected), and 'Jobs'. A yellow callout box with the text 'Current component state in the enterprise' points to the 'Components' tab. The main content area is a table with columns: 'State (Icon)', 'Component', 'Running Tasks', 'State', and 'Running MTS'. The table lists four components: 'Application Deployment Manager Batch Processor', 'Application Deployment Manager Object Manager (ENU)', 'Application Deployment Manager Processor', and 'Call Center Object Manager (ENU)'. The first three are listed as 'Online' and the last one as 'Running'.

State (Icon)	Component	Running Tasks	State	Running MTS
Yellow/Red	Application Deployment Manager Batch Processor	0	Online	1
Yellow/Red	Application Deployment Manager Object Manager (ENU)	0	Online	1
Yellow/Red	Application Deployment Manager Processor	0	Online	1
Yellow/Red	Call Center Object Manager (ENU)	1	Running	1

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7 of 26



## Component States

- Running: The component is available and at least one component task is currently running
- Online: The component is available but no component tasks are currently running
- Unavailable: The component is unavailable and no component tasks are running
- Paused: The component is online but is not accepting new tasks
- Shutting Down: The server is shutting down; currently-running tasks will execute to completion, but no new tasks can be run
- Shutdown: The server component is shut down



## Change Component Parameters

- Change component parameters by changing the Value or Value on Restart
- Examine the Effective setting to see when the parameter change will become effective

The screenshot shows the Siebel Server Administration interface under the 'Administration - Server Configuration' tab. In the 'Components' section, a table lists components like 'Call Center Object M SCCObjMgr\_enu' under 'Component Group' 'CallCenter'. A callout box highlights the 'Effective' setting, which includes options: 'Immediately' (checked), 'At Next Task' (checked), 'At Component Re-Start' (unchecked), 'At Server Re-Start' (unchecked), and 'Require Reconfiguration' (unchecked). The text in the callout box states: "Effective setting indicates when parameter change will become effective".

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9 of 26

<b>Immediately</b>	The parameter change is effective immediately.
<b>At Next Task</b>	The parameter change is effective for all new tasks running that component; currently-running tasks execute with the old parameter.
<b>At Component Re-Start</b>	The parameter change does not take effect until the component is stopped and restarted.
<b>At Server Re-Start</b>	The parameter change does not take effect until the Siebel Server is restarted.
<b>Require Reconfiguration</b>	The component must be reconfigured to change the parameter. This is common for parameters that work with or are dependent on other parameters.



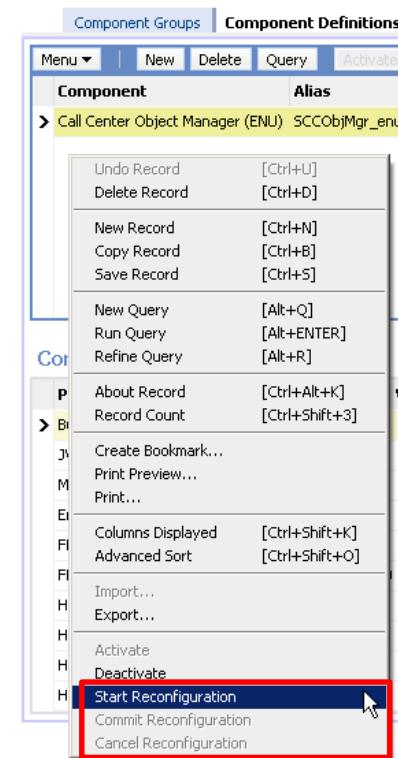
## Reconfigure Component Definitions

- Modifies component parameters without shutting down the server(s)
  - ▶ Useful during site migrations or application updates
  - ▶ Useful when changing multiple parameters and changes should all be performed at once
    - For example, when changing both a user name and a password parameter, changing one at a time would lead to authentication issues
- During reconfiguration:
  - ▶ Tasks started before and during reconfiguration continue to run with the old parameters
  - ▶ Tasks started after the reconfiguration is committed run with the new parameters



## Reconfigure Component Definitions Continued

- From the Administration – Server Configuration > Enterprises screen
- Start Reconfiguration:
  - ▶ Opens existing component parameters for modification
- Commit Reconfiguration:
  - ▶ Commits the updated Component Definition
  - ▶ All tasks started after the commit run with the new parameters
- Cancel Reconfiguration:
  - ▶ Cancels the current reconfiguration; component definition remains unaltered



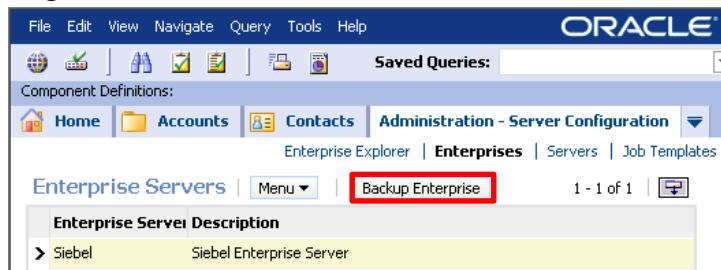
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11 of 26



## Back Up the Enterprise

- Recommended practice: Back up the enterprise after making any configuration changes such as modifying component parameters
  - ▶ Creates a backup copy of siebns.dat
    - siebns.dat stores information about components, parameters, and servers
  - ▶ May also be used for backup or migration purposes
  - ▶ Do not try to manually duplicate this file
    - File is in use as long as Siebel Gateway Name Server is running



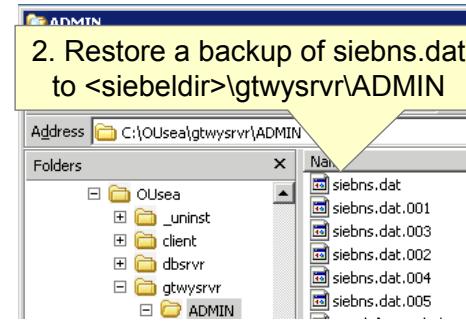
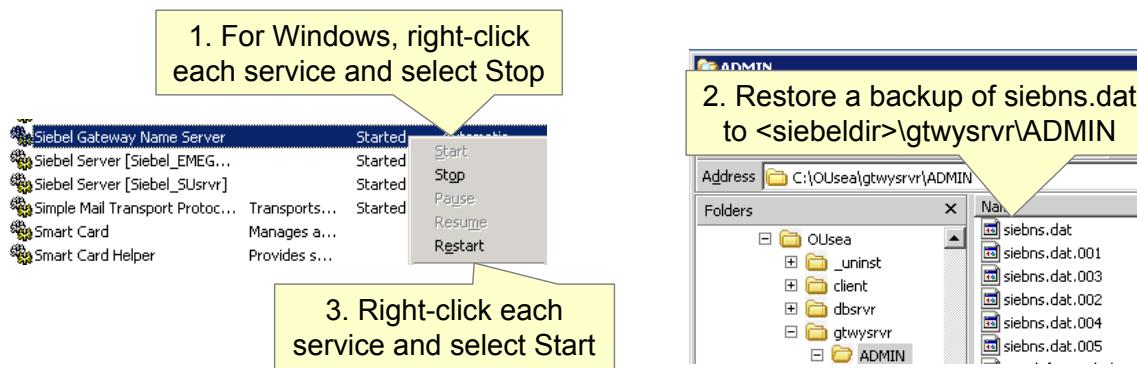
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12 of 26



## Restore the Enterprise

- Restore a previous enterprise configuration with these steps:
  1. Shut down the Siebel Gateway Name Server and the Siebel Server
  2. Replace the existing siebns.dat file with a working backup
  3. Start the Siebel Gateway Name Server and the Siebel Server



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13 of 26



## Server Event Logging

- Monitor server events by setting their log levels
- Navigate to Administration - Server Configuration > Servers > Server Event Configuration
  - ▶ Set the log level for each Siebel Server event of interest

Select the Siebel Server for which you want to log events

The screenshot shows the Siebel Server Event Configuration interface. At the top, there are tabs for Contacts, Opportunities, Administration - Server Configuration, Enterprise Explorer, Enterprises, Servers, and Job Templates. Below that, a sub-menu for Siebel Servers is open, showing a list of servers. One server, 'SUSrvr', is selected and highlighted in yellow. The main table below lists 'Siebel Server', 'Server Group Name', 'Host Name', and 'Install Directory'. The 'Events' tab is selected in a sub-menu, showing a list of event types: Component Tracing, Component Assignment, and Component Definition. The 'Component Assignment' row is also highlighted in yellow. A callout box points to this row with the text: 'Select the event type you want to log and enter a logging level from 0 to 5 in the Log Level field'.

Siebel Server	Server Group Name	Host Name	Install Directory
SUSrvr	EMEJHG20	C:\SUsea\siebsrvr	

Event Type	Alias	Log Level	Description
Component Tracing	Trace	1	A trace condition was met (used)
Component Assignment	CompAssign	3	Signifies the assignment or de-assignment of a component
Component Definition	CompDef	1	Signifies the creation or deletion of a component definition

Select the event type you want to log and enter a logging level from 0 to 5 in the Log Level field

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14 of 26

### Reference

Siebel System Monitoring and Diagnostics Guide



## Log Levels

- There are six available logging levels for server events:
  - ▶ 0: Fatal
  - ▶ 1: Errors
  - ▶ 2: Warnings
  - ▶ 3: Informational
  - ▶ 4: Details
  - ▶ 5: Diagnostic
- Higher log levels generate larger log files and may affect system performance, hence the recommended practice is to only use these levels when troubleshooting

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15 of 26



## Component Event Logging

- Use the Component Event Configuration view to set the log level of component event types

The screenshot shows the Siebel Server Configuration interface. At the top, there are tabs for Home, Accounts, Administration - Server Configuration, Enterprise Explorer, Enterprises, Servers (which is selected), and Job Templates. Below this, there are two main sections: 'Siebel Servers' and 'Components'. In the 'Components' section, there are three tabs: Components, Parameters, and Events. The Components tab is selected, showing a list of components with columns for Component, Alias, and Component Group. One row is highlighted: 'Call Center Object Manager (ENU)' with alias 'SCCObjMgr\_enu' and group 'CallCenter'. Below this is the 'Events' tab, which also has three tabs: Menu, Query, and Auto Start. The Events tab is selected, showing a list of event types with columns for Event Type, Log Level, and Description. Several rows are highlighted: 'DBC Connection' (Log Level 1, Description: DB connection trace), 'DBC Debug' (Log Level 1, Description: Extremely detailed debugging information), 'DBC Input' (Log Level 1, Description: Input trace), 'DBC Log' (Log Level 1, Description: Generic DB Connectivity log), and 'DBC Output' (Log Level 1, Description: Output trace). A yellow callout box points to the 'Components' tab with the text: 'Select the component for which you want to log events'. Another yellow callout box points to the 'Events' tab with the text: 'Select the event type you want to log and enter a logging level in the Log Level field'.

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16 of 26

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## Examine Logs

- Each task creates a log of its execution

The screenshot shows the Siebel Server Management interface. At the top, there's a navigation bar with Home, Accounts, Administration - Server Management, Servers, Components, Jobs, Tasks, Sessions, and Enterprises. Below it is a table for Servers, showing one entry: OUsvr, State: Running, Host: EME. A yellow callout box points to the task number 10485770 in the first table, with the text "Drill down on the task number ...". A red arrow points from this number to the Task column in a second table titled "Tasks". This second table also has columns for State (Icon), Siebel Server, Task, Component, PID, State, and Status. It shows the same OUsvr entry with Task ID 10485770, Component Call Center Object Manager (ENU), PID 3144, State Running, and Status Handling Request. A yellow callout box points to this table with the text "... to view the Task Information Log". Below these tables is a third table titled "Log" with columns for Log ID, Timestamp, Level, and Text. It contains two entries: Log ID 1 at 1/9/2007 05:42:27 F 1 with text "(cscfg.cpp (165)) SBL-CSR-00418: Communication: User is not associated v" and Log ID 2 at 1/9/2007 05:44:20 F 1 with text "(cscfg.cpp (165)) SBL-CSR-00418: Communication: User is not associated v".

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17 of 26

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## Examine Log Files

### ■ View the log file on the Siebel Server

The screenshot shows the Oracle Siebel Server Management interface. At the top, there's a navigation bar with Home, Accounts, Administration - Server Management, Servers, Components, Jobs, Tasks, Sessions, and Enterprises. Below that is a sub-navigation bar for Servers, with options for Menu, Query, Startup, Shutdown, and a list of 1-1 of 1 servers. The main pane displays a table of servers with columns for State (Icon), Siebel Server, Server Group, Nar, Server State, and Host. One server, OUsrvr, is listed as Running. Below this is another sub-navigation bar with Component Groups, Log, Statistics, Tasks, and Sessions. A table lists tasks with columns for State (Icon), Task, and Component. Two tasks are shown: 11534338 (Server Manager) and 10485770 (Call Center Object Manager (ENU)). The task with ID 10485770 is highlighted with a red box. A callout box labeled "1. Note the task number" points to this task. To the right, another callout box labeled "2. Locate the log file in the <Siebel>\siebsrvr\log directory" points to a file browser window showing the directory structure C:\Ousea\siebsrvr\log. A file named SCCObjMgr\_enu\_0010\_10485770.log is selected and highlighted with a red box. A third callout box labeled "3. Examine the file" points to a Notepad window titled "SCCObjMgr\_enu\_0010\_10485770.log - Notepad" which contains log file content.

1. Note the task number

2. Locate the log file in the <Siebel>\siebsrvr\log directory

3. Examine the file

SCCObjMgr\_enu\_0010\_10485770.log - Notepad

```

2021 2007-01-09 17:42:27 0000-00-00 00:00:00 +0000 00000000 001 003f 0001 09 SCCObjMgr_enu
10485770 3144 708 C:\Ousea\siebsrvr\log\SCCObjMgr_enu_0010_10485770.log.8.0 [20405] ENU
ObjMgrLog Error 1 00000000e45a30c48:0 2007-01-09 17:42:27 (cscfg.cpp
(165)) SBL-CSR-00418: Communication: User is not associated with any communication
configuration in the database.
ObjMgrLog Error 1 00000000445a30428:0 2007-01-09 17:44:20 (cscfg.cpp
(165)) SBL-CSR-00418: Communication: User is not associated with any communication
configuration in the database.
ObjMgrLog Error 1 00000001545a30428:0 2007-01-09 17:44:40
(sweview.cpp (1410)) SBL-UIF-00401: View: Home Page View (wcc) does not contain applet: .
ObjMgrLog Error 1 00000001545a30428:0 2007-01-09 17:44:43 (cthd.cpp
(3321)) SBL-UIF-00335: We are unable to process your request. This is most likely because
you used the browser BACK or REFRESH button to get to this point.

```

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18 of 26

### Log File Archiving

Whenever the Siebel Server service is restarted, the log files are moved from the log directory to the logarchive directory.



## System Alerts

- System alerts collect information about the failure of tasks or unavailability of components, and send email alerts to administrators
- Examples:
  - ▶ A component fails to restart
  - ▶ Critical system throughput thresholds are achieved
- Create additional alerts to notify additional individuals or to handle different types of alerts

1. Select System Alerts in Enterprise Explorer

The screenshot shows the Siebel Enterprise Server Configuration interface. On the left, there's a navigation tree under 'Siebel Enterprise' with 'System Alerts' highlighted and a red box around it. On the right, a table titled 'System Alerts' lists one item: 'Administrator Email Alerts' with an alias 'AdminEmailAlert'. A yellow box highlights this row. Below the table, a callout box contains the text: '2. Define new system alerts and alert parameters to notify additional individuals or to handle different types of alerts'.

Alert Definition Name	Alias	Media	Description
Administrator Email Alerts	AdminEmailAlert	EmailNotification	Configuration for sending automated noti

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19 of 26

**Required Component** The AdminNotify component must be enabled in order for system alerts to be processed. This component is part of the Auxiliary System Management component group and is enabled by default.



## Using System Alerts

- To configure a component to use these system alerts:
  - ▶ Navigate to Administration – Server Configuration > Servers > Components
  - ▶ Select the component of interest
  - ▶ Specify the notification handler for that component
    - One of the system alert profiles previously created

Notification  
handler is a  
parameter for  
every component  
that specifies  
which system  
alert to use

The screenshot shows the Siebel Server Configuration interface under the Administration - Server Configuration tab. It displays the configuration for a Siebel Server named SUsrvr, which has a Server Group Name of EMEJHG20 and an Install Directory of C:\SUsea\siebsrvr.

In the Components tab, a Call Center Object component named SCCObjMgr\_enu is selected, assigned to the alias CallCenter, and grouped under CallCenter.

In the Component Parameters tab, a notification handler parameter is configured with the value AdminEmailAlert, setting the Value on Restart and Default Value to AdminEmailAlert.

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20 of 26

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## Submit Batch Jobs

- Navigate to Administration – Server Management > Jobs
- Create a new job or copy an existing job
  - ▶ Job templates as well as components are listed for new jobs

The screenshot shows the Siebel interface with the 'Administration - Server Management' tab selected. In the 'Jobs' section, there is a table with columns: State (Icon), ID, Component/Job, Repeating?, Requested Server, Execution Server, and Request Key. A row is selected, and a red box highlights the 'Component/Job' column. A pop-up window titled 'Components/Jobs - Microsoft Internet Explorer' lists various components and jobs. A yellow callout box points to the list with the text: 'Both job templates and batch components are listed in the pick applet'. The list includes:

Short Name	Name	Type	Component	Enabled?	Description
GenNewDb	Generate New Database	Component		✓	Generates a new database.
GenTrig	Generate Triggers	Component		✓	Generates triggers.
ICMCalcEngine	ICM Calc Engine	Component		✓	ICM Calc Engine.
ICMCalcImport	ICM CalcWkbk Import	Component		✓	ICM CalcWkbk Import.
ICMContainerCalc	ICM Container Calculation	Component		✓	ICM Container Calculation.
ICMContainerRetro	ICM Container Recalculator	Component		✓	ICM Container Recalculator.
ICMOrderImport	ICM Order Import	Component		✓	ICM Order Import.
TCMOrderImport	TCM Order Import	Component		✓	TCM Order Import.

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21 of 26

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## Submit Batch Jobs

Continued

- Specify job parameters
- Optionally, schedule the job to repeat at regular intervals or to run on a preferred server if it is available
- Submit the job

**Create and define job parameters**

**Submit the job once all options have been set**

**Jobs can be set to repeat periodically or to have a preferred server on which to run**

**Specific parameters depend on the job you are submitting**

Name	Abbreviation	Description
16K Tablespace Name	16KTblSpace	16K Tablespace name for the Siebel Database schema
32K Tablespace Name	32KTblSpace	32K Tablespace name for the Siebel Database schema
Alert Level	AlertLevel	Alert Level for tracing start/stop/cancel/killed/success
Client Db Type		
DBA password		password to be used for DB connection
DataBase Rollback Segment Name		Rollback segment name for debugging (internal use)
Debug Flags		
Debugger	dbg	Debugger program name
Disable Autocommit	DB2DisableAutoCommit	Disables autocommit in DB2 390 connector. This parameter is used for DB connection
Disable DB2 CLI MinMemMode	DB2DisableMinMemMode	Disable MinMemMode in DB2 connector

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22 of 26

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## Manage Batch Jobs

- Cancel, pause (hold), or resume jobs from the Administration – Server Management > Jobs screen

Cancel, hold, or resume jobs

State (Icon)	ID	Component/Job	Repeating?	Requested Server	Execution
>	1-SUV	Generate New Database		OUsrvr	

- Monitor the progress of the job from the Administration – Server Management > Tasks screen

Batch job appears as a task in the tasks list

State (Icon)	Siebel Server	Task	Component	PID	State	Status
	OUsrvr	17825794	Server Manager	1320	Running	Processing "List"
>	OUsrvr	16777218	Generate New Database	3080	Completed	

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23 of 26



## Module Highlights

- Monitor the state of the enterprise, servers, components, tasks, jobs, and sessions from the Administration - Server Management screen
- Change component parameters
  - ▶ May require reconfiguring component definitions
- Back up the enterprise after changing configurations
- Set logging options and system alerts to monitor the system
- Submit and monitor batch jobs



## Lab

- In the lab you will:
  - ▶ Perform common administration tasks

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25 of 26





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## Module 11: Siebel Client Types

11

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11



## Module Objectives

After completing this module you should be able to:

- ▶ Identify the various Siebel clients
- ▶ Describe files associated with each client, including configuration files and local databases
- ▶ Describe how each client accesses Siebel servers and data

Why you need to know:

- ▶ Not all users will be able to use the Siebel Web Client at all times, hence understanding other client types is essential



## Business Challenge

- Not all Siebel application users have access to the Web at all times
  - ▶ Some users spend a great deal of time traveling
    - Sales representatives
    - Executives
    - Instructors
- Other users may want to access the application using their mobile phones or Personal Digital Assistants (PDAs)
- Developers may need to access Siebel data when a Siebel Server or even the entire enterprise is down

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3 of 18



## Business Solution

- Oracle provides five client types for use with the Siebel application:
  - ▶ Siebel Web Client
  - ▶ Siebel Wireless Web Client
  - ▶ Siebel Mobile Web Client
  - ▶ Siebel Handheld Client
  - ▶ Siebel Developer Web Client

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4 of 18

### References

- Siebel System Administration Guide
- Siebel Wireless Administration Guide
- Siebel Remote and Replication Manager Administration Guide
- Siebel Sales Handheld Guide

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## Siebel Web Client Scenario

Wayne is an employee working from home, and connected to his company's network. He would like to frequently and quickly view and update the activities of his assigned accounts. Since his computer has a browser, but no Siebel software, he types the appropriate URL to access the account data.



Wayne is using the Siebel Web Client

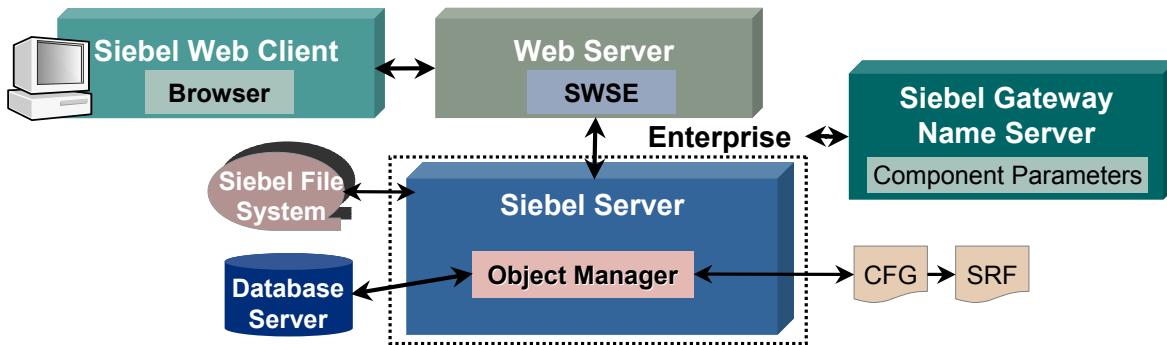
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5 of 18

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## Siebel Web Client

- Is a “near zero footprint” client
  - ▶ Uses only a Web browser and a network connection
  - ▶ For High Interactivity (HI) clients, includes ActiveX controls so not truly zero-footprint in HI mode
- Accesses Siebel Servers through the Web Server running the Siebel Web Server Extension (SWSE)
- Accesses Siebel data through an Application Object Manager (OM)



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6 of 18

**Supported Browsers** The Standard Interactivity (SI) client supports most Web browsers. Because the High Interactivity client requires ActiveX controls, it requires Internet Explorer. For details see the System Requirements and Supported Platforms Guide.



## Siebel Wireless Web Client Scenario

Wendy is a salesperson. She has a meeting set up with one of her opportunities. Since she is running late, Wendy uses her Web-enabled phone to retrieve the meeting information from the Siebel database. As an outcome of the meeting, she updates the sales stage of the opportunity.

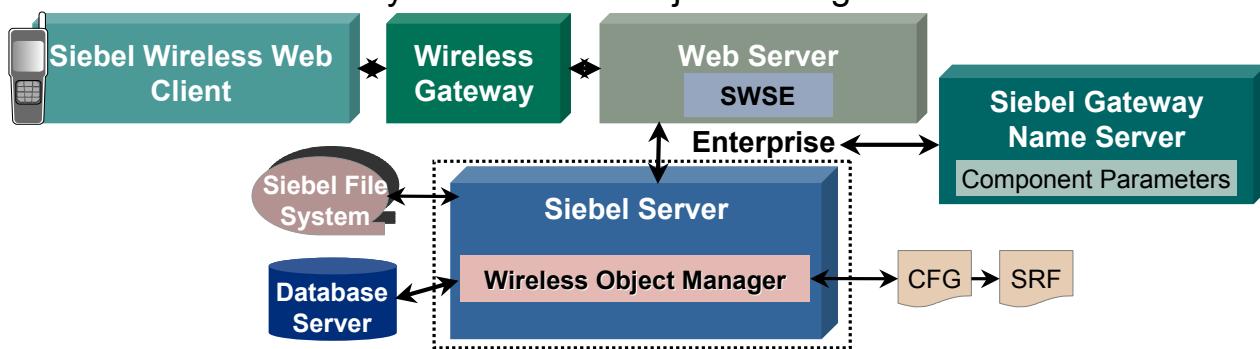


Wendy is using the Wireless Web Client

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## Siebel Wireless Web Client

- Allows users to read from, write to, and search the Siebel database through a wireless connection between a mobile device and the Siebel Web Server
  - ▶ Requires a wireless gateway to translate HTTP data generated by Siebel Wireless to Wireless Application Protocol (WAP)
- Uses the same logical data model as the Siebel Web Client
  - ▶ Same business objects, business components, and so forth
- Uses wireless-specific applets, screens, and views
  - ▶ Determined by the Wireless Object Manager



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8 of 18

### Supported Markup Languages

For a list of supported Wireless Markup Languages, see the Siebel Wireless Administration Guide.



## Siebel Mobile Web Client Scenario

Mary is a consultant. She is at the airport waiting for her flight and would like to access contact information for an active opportunity. Since she cannot access the server, she is retrieving this information from a local database on her laptop.

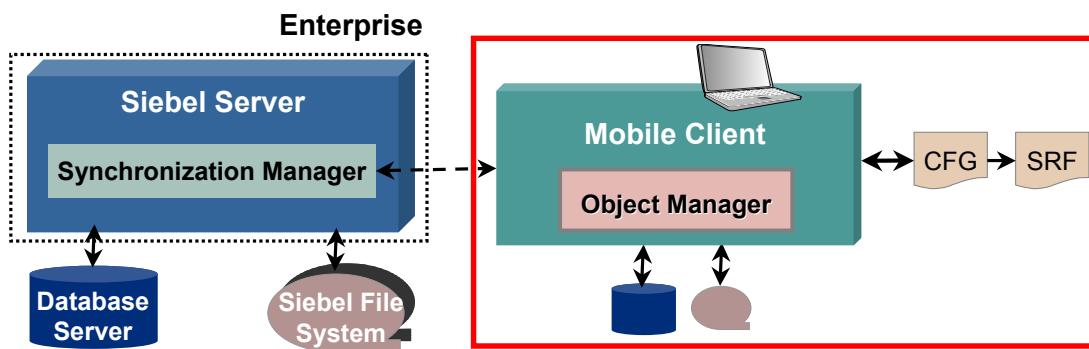


Mary is using the Mobile Web Client

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## Siebel Mobile Web Client

- Is designed to provide full Siebel application functionality without requiring a network connection
  - ▶ A local executable providing full application functionality must be installed on the client
  - ▶ This local executable accesses local .cfg and .srf files, and stores its data in a local database and Siebel File System
- Directly connects to a designated Siebel Server for synchronization of data and files



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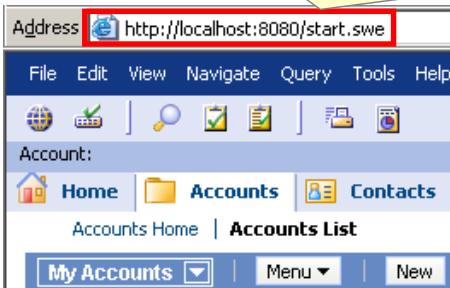
10 of 18



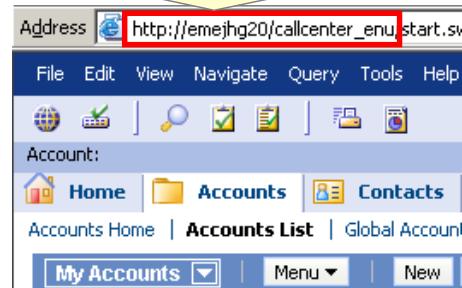
## Siebel Mobile Web Client Caveats

- Many users mistake the Mobile Web Client for the Web Client
  - ▶ Application functionality is almost the same, so users forget which is which
- To determine which application is running, check the URL
  - ▶ The Mobile and Developer Web Clients have a port number in the URL, and no application name
  - ▶ The Web Client usually does not have a port number in the URL, and includes the application name

Mobile Web Client URL has a port number and no application name



Web Client URL has no port number and includes the application name



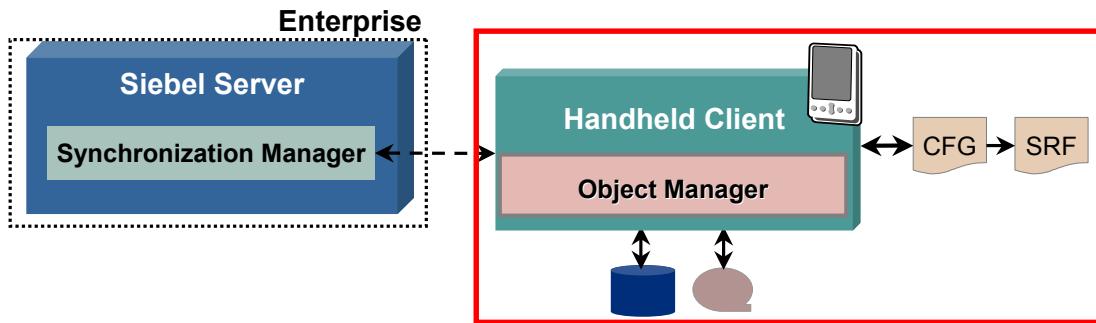
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11 of 18



## Siebel Handheld Client

- Architecture is similar to the Siebel Mobile Web Client:
  - ▶ The handheld client includes local database, file system, and configuration files
  - ▶ The handheld client synchronizes with a specific Siebel server
- Architecture is not identical to Siebel Mobile Web Client:
  - ▶ Only runs on Windows-based mobile devices
  - ▶ Supports a focused subset of application functionality
    - Screens, views, and applets customized for Siebel Handheld
    - Applications customized for Siebel Handheld



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12 of 18



## Siebel Developer Web Client Scenario

Dana is a system administrator. She has the client software installed locally because she requires access to the application even when the servers are not available.

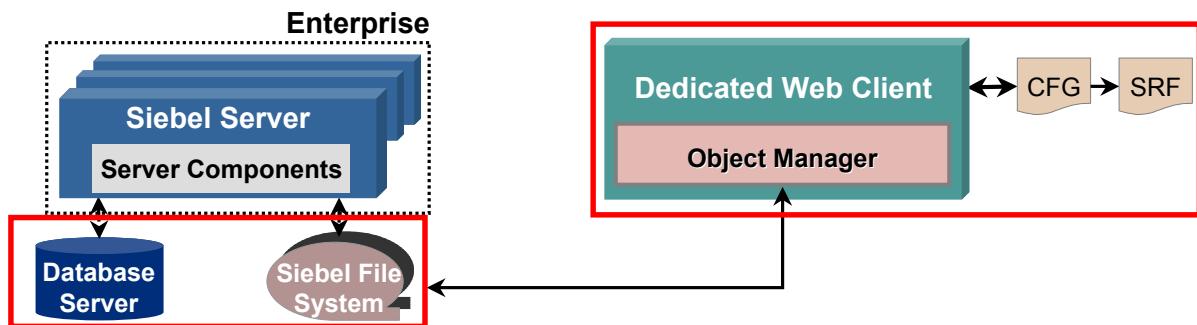


Dana is using the Siebel Developer Web Client

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## Siebel Developer Web Client

- Is used by developers and system administrators for direct access to the Siebel database
  - ▶ Siebel servers do not have to be running
  - ▶ Does not require a Web server
- Is similar to the Siebel Mobile Web client in that:
  - ▶ A local application must be installed on the client
  - ▶ Local configuration files must be stored on the client
- However, can access any Siebel database and file system, including a local one or the enterprise's



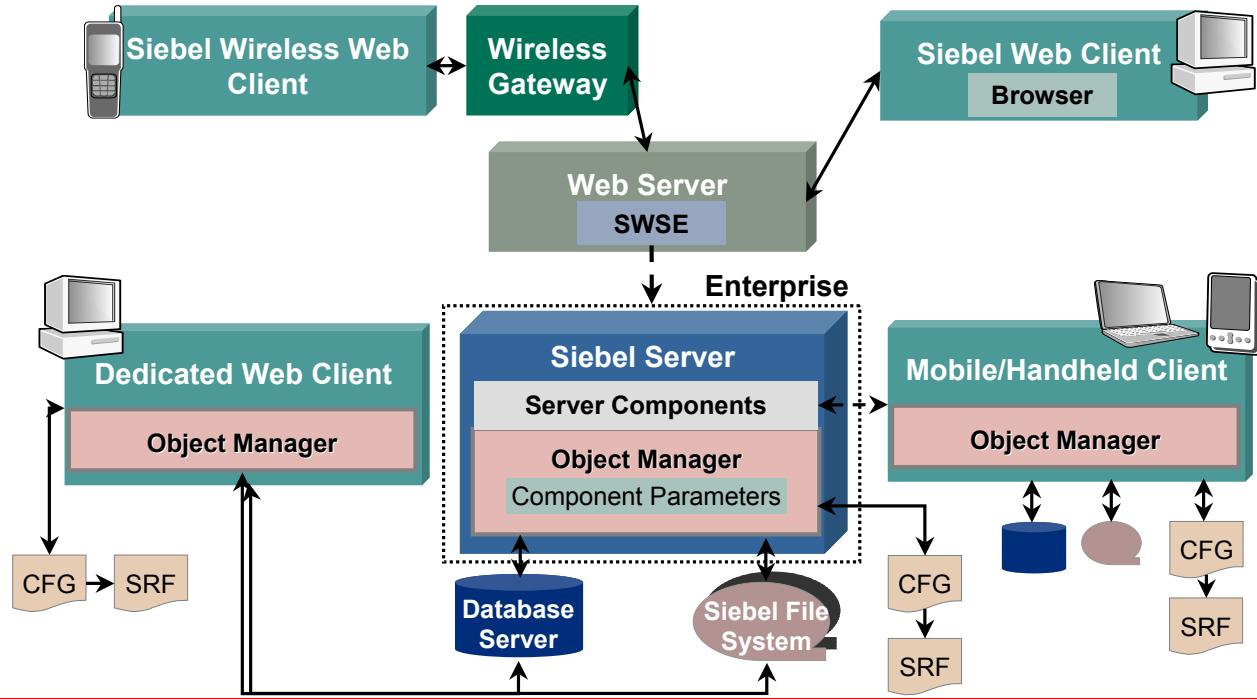
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14 of 18

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## The Big Picture

- The Siebel application supports a mixture of clients, depending on your users' business requirements



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## Module Highlights

- The Siebel Web Client accesses the Siebel Enterprise and Siebel Servers through a Web server running SWSE
- The Siebel Wireless Web Client connects to a WAP-enabled Web server, and is otherwise similar to the Siebel Web Client
- The Siebel Mobile Web Client is a local executable that connects to a local database and provides full Siebel application functionality
- The Siebel Handheld Client is similar to the Siebel Mobile Web client, but runs on handheld devices
- The Siebel Developer Web Client is used by developers and system administrators for direct access to the Siebel database and for development and administrative changes



## In-Class Discussion

- Which client is best suited for:
  - ▶ Disconnected remote users needing access to their data
  - ▶ A user with a cell phone needing access to his or her data
  - ▶ Users needing frequent and fast access to their data (easily scalable and maintained)
  - ▶ Server administrator needing access (to shut down a server component)

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## Lab

- In the lab you will:
  - ▶ Answer questions about client types
  - ▶ Use the Developer and Mobile Web Clients

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18 of 18

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12

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## **Module 12: Securing Access to the Application**

**12**

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## Module Objectives

- After completing this module you should be able to:
  - ▶ Describe the types of user authentication supported by Siebel applications
  - ▶ Explain the role of the security adapter
  - ▶ Describe Single Sign On (SSO) security and how it differs from other authentication methods
- Why you need to know:
  - ▶ You must understand the security mechanisms in order to be able to implement them

## Siebel Application Security

12

- Siebel applications are secured at several levels:
  - ▶ Data visibility and view access should be restricted so users see only the appropriate views and data
    - Subject of previous module
  - ▶ Access to the application should be restricted to authorized users
    - Subject of this module
  - ▶ Communication between architecture components may need to be secured
    - Subject of subsequent module



## Authentication

- Is the process of validating a user's identity
- Verifies the identity of users *before* they gain access to a Siebel application
- Typically consists of collecting a set of user credentials such as user ID and password and comparing them to pre-stored values

## Supported Authentication Methods

- Siebel applications support authentication by either the Siebel servers or the Web server:
  - ▶ Siebel security adapters are software programs that allow Siebel servers to authenticate users
  - ▶ Single Sign On (SSO) allows the Web server to authenticate users
    - Siebel Web Server Extension performs authentication check
    - Security adapter is still involved in verifying the “trust token” passed to it by the Web server

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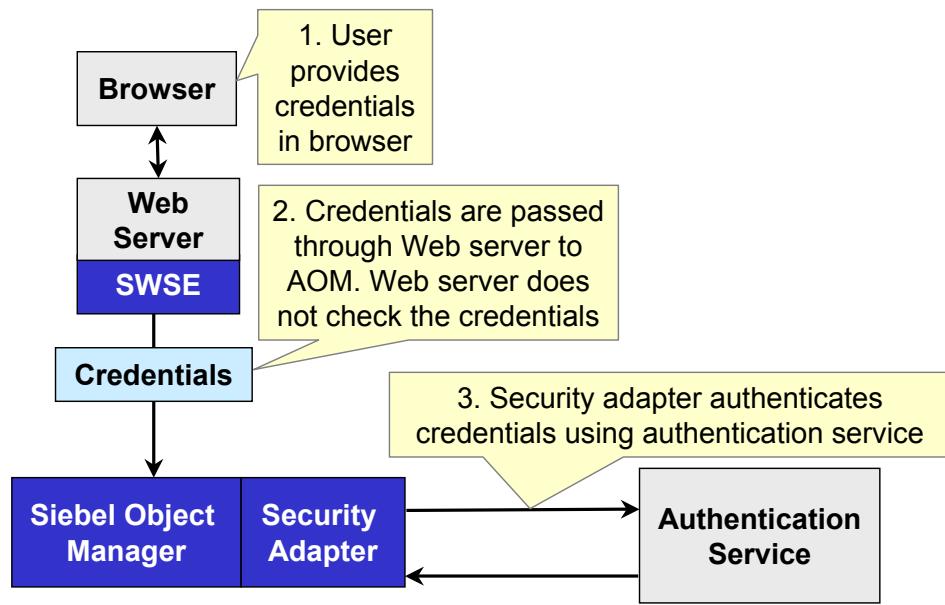
5 of 18

### Trust Token

Similar to an authentication certificate, a trust token is a software object confirming the identity of the sender. The trust token may contain additional information such as user identity or database login to be passed to the server.

## Siebel Security Adapters

- A security adapter is a piece of software that connects to an authentication service
  - ▶ Implemented as part of the Application Object Manager (AOM)



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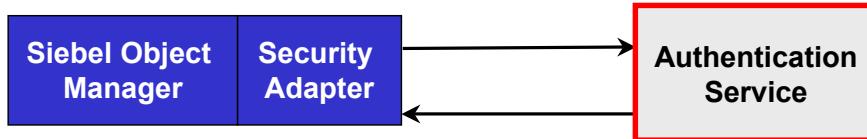
6 of 18

### Authentication Service

An authentication service is a store of credentials (typically user IDs and passwords) plus a mechanism to compare user provided credentials against the stored credentials.

## Authentication Services

- Siebel applications support multiple authentication services:
  - ▶ Database authentication
  - ▶ Lightweight Database Authentication Protocol (LDAP)
  - ▶ Active Directory Services Interface (ADSI)
  - ▶ Custom authentication using the Siebel Security Adapter Software Developer's Kit (SSASDK)
    - Creating custom security adapters is beyond the scope of this course
    - Refer to the Siebel Security Adapter SDK in Bookshelf



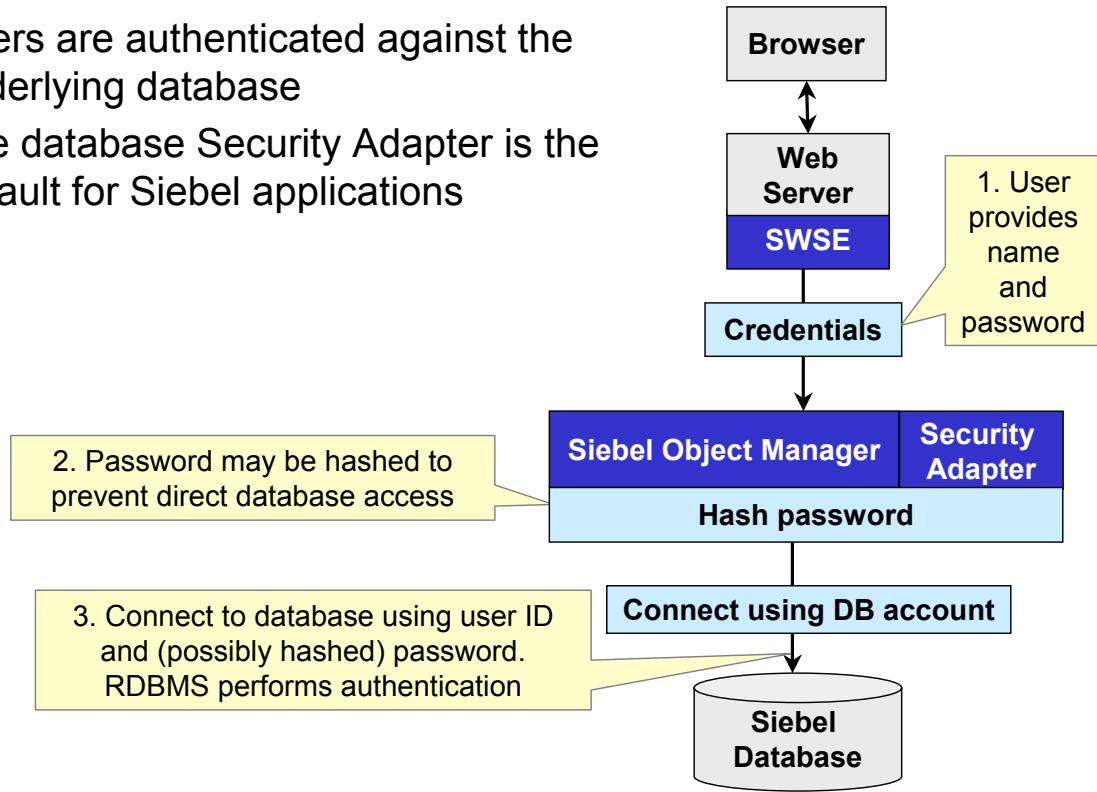
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7 of 18

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## Database Authentication

- Users are authenticated against the underlying database
- The database Security Adapter is the default for Siebel applications



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### Password Hashing

A hash function is an operation that generates a unique output value for each input, typically of a fixed length. This differs from encryption because the hash may lose information and is not reversible.

## Database Authentication Considerations

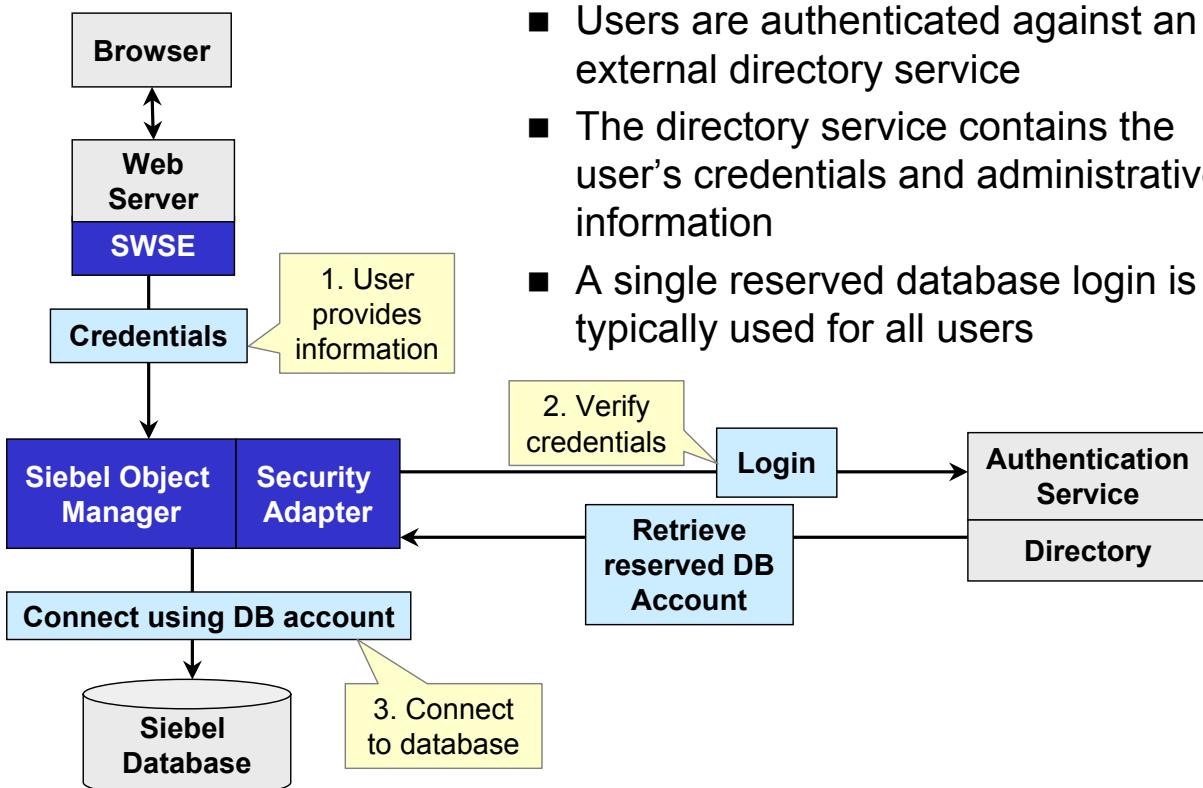
- Does not require additional infrastructure components such as directory servers
- Uses a separate database login for each user
  - ▶ Requires ongoing support from a database administrator
- May support account policies based on those of the RDBMS
  - ▶ Password expiration
  - ▶ Password syntax
  - ▶ Account lockout
- Supports minimal user self-management
  - ▶ User cannot perform self-management without being granted direct access to the database server

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9 of 18

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## Directory Server Authentication



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### Default Login

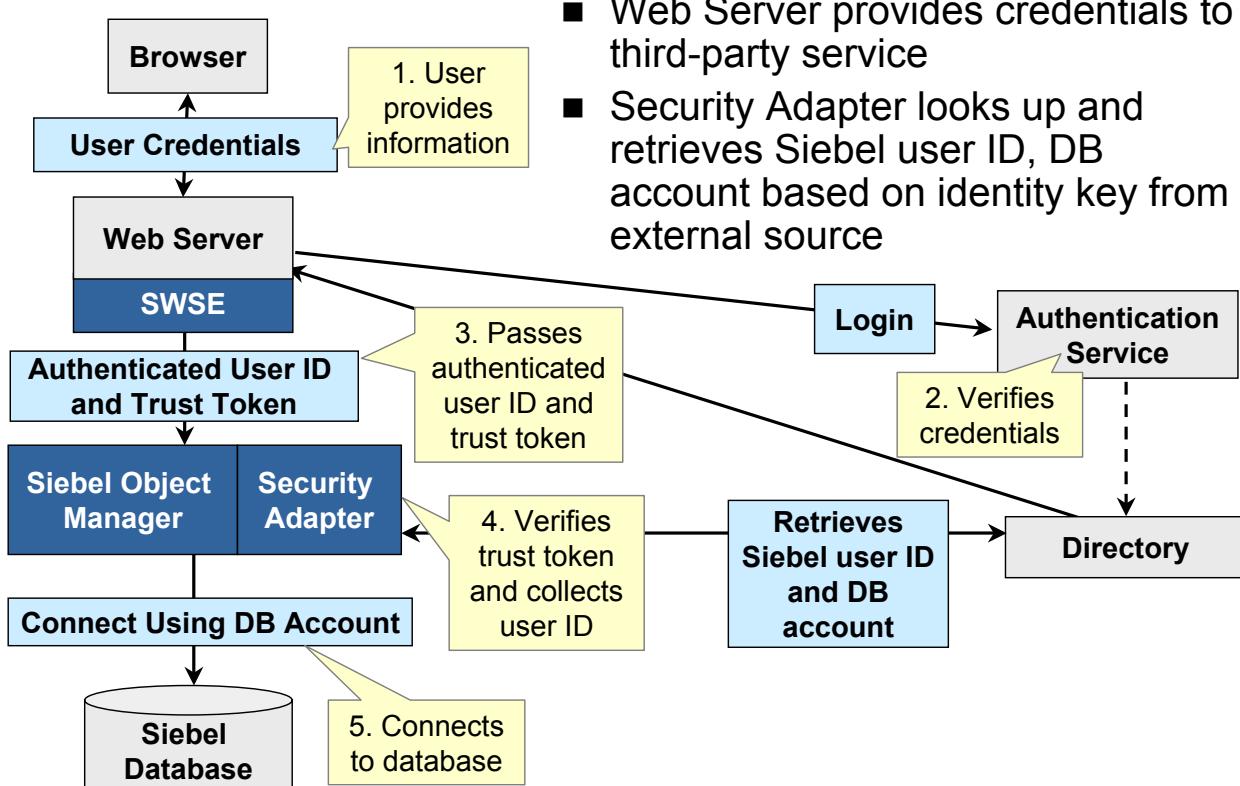
The default database login for directory server authentication is **LDAPUSER**.

## Directory Service Considerations

- Reduces administrative overhead
  - ▶ Eliminates maintenance of a separate database login for each user
  - ▶ Allows Web users to self-register and maintain login information
  - ▶ Allows automated creation of users from User Administration view
  - ▶ Allows external delegated administration of users
- Allows credentials store to be shared across multiple applications
- May support account policies based on those of the directory service
  - ▶ Password expiration
  - ▶ Password syntax
  - ▶ Account lockout

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## Single Sign On



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12 of 18

## Single Sign On Considerations

- Allows users to access multiple applications without any further login
  - ▶ For example, Windows Integrated Authentication allows users to access Siebel applications directly once they have logged in to their Windows accounts
- Uses credentials that are collected and verified by the Web server
  - ▶ Management of authentication can be performed from a single centralized location
- Requires the use of a trust token
  - ▶ Secret value shared by the Web server and Object Manager
- Allows Siebel applications to be deployed into existing Web sites and portals



## Single Sign On Considerations Continued

- Some Siebel User Administration features that are not available using SSO should be disabled for consistency, for example:
  - ▶ User self-registration
  - ▶ Delegated administration of users
  - ▶ Change password
- Requires synchronization of users between the Siebel application and the external authentication system

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14 of 18



## Comparing Authentication Methods

12

	Database Authentication	Directory Service Authentication	Single Sign On
Requires additional infrastructure	No	Yes	Yes
Supports account policies such as password expiration	Depends on RDBMS	Depends on directory service	Depends on directory service
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

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15 of 18



## Module Highlights

- Siebel applications support three mechanisms for authenticating users:
  - ▶ Database authentication is the default; the Siebel Server passes the authentication information to the RDBMS for authentication
  - ▶ Directory Service authentication uses a directory service such as LDAP or ADSI to perform the authentication; the Siebel Server passes the authentication information to the directory service
  - ▶ Single Sign On uses a directory service at the Web server level to allow single sign-on to multiple applications; the Siebel Web Server passes the authentication information to the directory service and passes the returned trust token to the Siebel Server

## Lab

12

- In the lab you will:
  - ▶ Create a database account for a new user





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13

## **Module 13: Installing Siebel Applications**

**13**

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## Module Objectives

- After completing this module you should be able to:
  - ▶ Describe pre-installation steps necessary to prepare your environment for a Siebel installation
  - ▶ Install the Siebel application
  - ▶ Perform post-installation steps to verify your Siebel environment
  - ▶ Describe how to use the multi-server update tool to automate installations
- Why you need to know:
  - ▶ Successful configuration of the Siebel environment requires successful installation



## Business Challenge: Enterprise Installation

- Installing enterprise-level software requires careful planning and preparation
  - ▶ Hardware and software prerequisites must be met
  - ▶ Multiple installers must be run in the correct sequence
  - ▶ Configuration parameters must be properly set before, during, and after installation
  - ▶ Installation may be required on many machines

13



## Business Solution: Siebel Installation Tools

- Siebel provides several tools to assist with the installation of Siebel environments:
  - ▶ Bookshelf documentation:
    - Deployment Planning Guide and System Requirements and Supported Platforms guide to prepare the system
    - Installation Guide [Windows or UNIX] to perform the installation
  - ▶ Step-by-step installers
    - Guide you through the installation process itself
  - ▶ Environment Verification Tool (EVT)
    - Performs verification tests on system at any time during the installation to check:
      - ▶ Prerequisites
      - ▶ Configuration settings
      - ▶ Installations
  - ▶ Siebel Multi-Server Update Tool
    - Upgrades multiple server instances from a central administration point

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4 of 34

<b>Reference</b>	<a href="#">Installation Guide for Microsoft Windows</a> <a href="#">Installation Guide for UNIX</a> <a href="#">System Requirements and Supported Platforms</a>
------------------	--



## Performing a Successful Installation

- Has three separate phases:
  - ▶ Pre-installation
  - ▶ Installation
  - ▶ Verification

13

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5 of 34

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## Pre-Installation Tasks

Plan the System Topology

Verify System Requirements

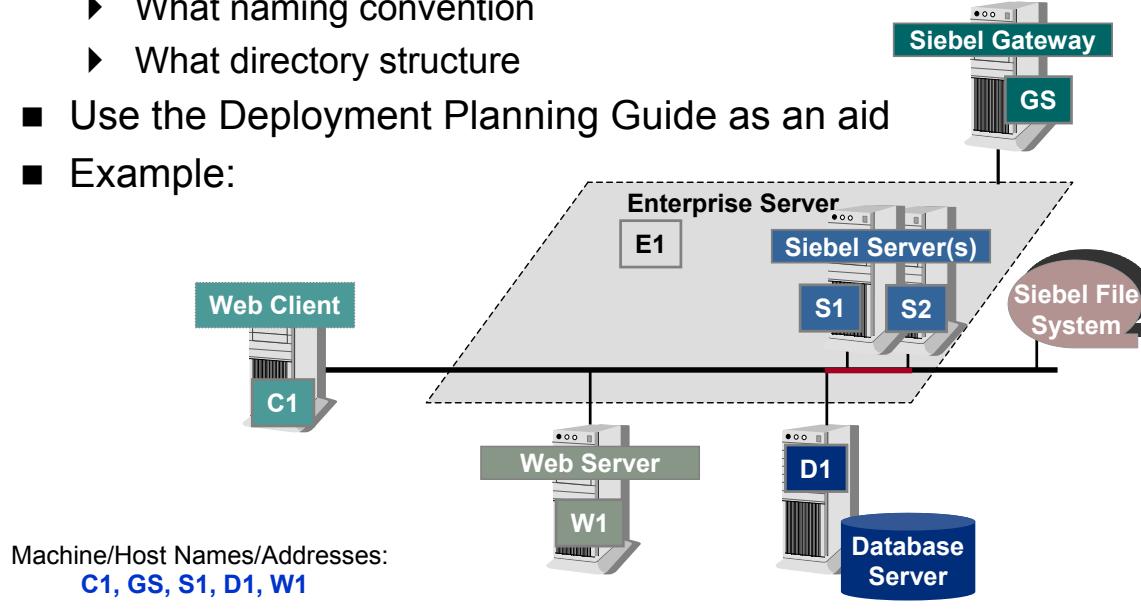
Create Prerequisite Objects

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6 of 34

## Plan the System Topology

- Identify where software will be installed
  - ▶ Which machine(s)
    - Consider hardware and networking requirements
  - ▶ What naming convention
  - ▶ What directory structure
- Use the Deployment Planning Guide as an aid
- Example:



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7 of 34

13

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## Verify System Requirements

- Verify that hardware and software meets Siebel requirements
  - ▶ Consult the System Requirements and Supported Platforms Guide
  - ▶ Check the Release Notes for any updates to these requirements
- Confirm that required third-party software is installed
  - ▶ For example, a third-party RDBMS on the database server machine
    - Installation Guide has recommendations for RDBMS configuration settings

## Verify System Requirements Continued

- Optionally, run the Environment Verification Tool (EVT) to verify prerequisites
  - ▶ Command-line tool for checking environment
  - ▶ Installed as part of the Siebel Server installation, so it must be copied from another installation to be run prior to server installation

```
C:\SUsea\siebsrvn\BIN>evt
Running checks defined in file C:\1990-2003 Siebel Systems, Inc. Environment Verification Summary Report Run by [student] on [Tue Oct 21 17:20:02 2008]
Report Run by [student] on [Tue Oct 21 17:20:02 2008]
Installed Version [NOT DETECTED] Installed Build [NOT DETECTED]
Running a [8.0] version validation with [UAN] flavor

Total Checks : 8
Checks Passed : 6
Checks Failed : 1 (<1 critical failures, 0 warnings)
Checks Skipped: 1

Critical Failures:

Network Configuration Checks
Please set TCP parameter MaxUserPort to 65534 - the current value is 65535
Complete list of checks:

Environment Settings
USERDUMP is not installed - It is recommended to install this utility using the following instructions http://support.siebel.com/knowledgebase/article/00000000000000000000000000000000
Environment variable SIEBEL_STRING_REFCOUNT has correctly not been defined

Network Configuration Checks
TCP parameter TcpTimedWaitDelay is correctly set to 30
Please set TCP parameter MaxUserPort to 65534 - the current value is 65535
TCP parameter MaxFreeTcbs is correctly set to 10000
TCP parameter MaxHashTableSize is correctly set to 2048

Operating System Checks
Operating System version 5.2 is up-to-date
Operating System version 1 is up-to-date
```

**Run EVT with no flags to check the pre-installation environment**

**Checks system software, network settings, and recommended OS tools, but does not verify RDBMS**

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9 of 34

## Create Prerequisite Objects

- Create the Siebel database
  - ▶ Install the proper version of your chosen supported RDBMS software
  - ▶ Create an empty database/tablespace with appropriate space defined
  - ▶ Consult the platform-appropriate Siebel Installation Guide for recommended database configuration parameter settings
- Create the Siebel file system
  - ▶ Create the Siebel file system as a directory on a disk with sufficient space
    - Alternatively, partition the file system across multiple directories and servers
  - ▶ Must be accessible from machines running Siebel Servers
  - ▶ Must support long and case-sensitive file names

## Create Prerequisite Objects Continued

- Create a Siebel service owner account
  - ▶ Used to run Enterprise processes and components
    - Siebel Gateway Name service
    - Siebel Server service
  - ▶ Name must be consistent across all servers:
    - Siebel Gateway Name Server
    - Siebel Servers
    - Server on which Siebel File System resides
  - ▶ Recommended practice: On Windows use a domain account rather than separate accounts on each machine
- Consult the platform-appropriate Siebel Installation Guide for exact steps and privileges

0/6

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## Installation Tasks

Create the Installation Image

Install the Enterprise

Configure the Server(s)

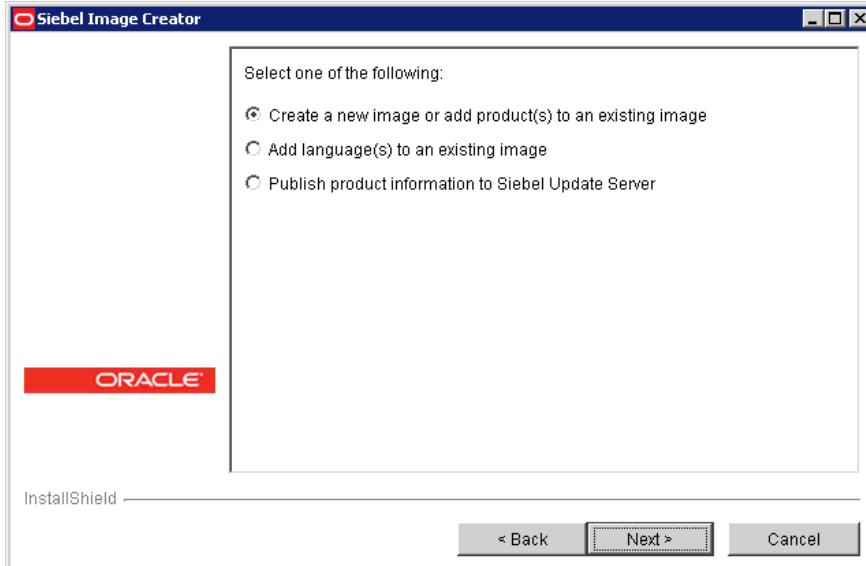
Install the Database

Install the Siebel Web Server Extensions

Install Additional Applications

## Create the Installation Image

- Run the Siebel Image Creator utility provided on your media to generate an installation image
  - ▶ Refer to the Siebel Installation Guide for detailed steps



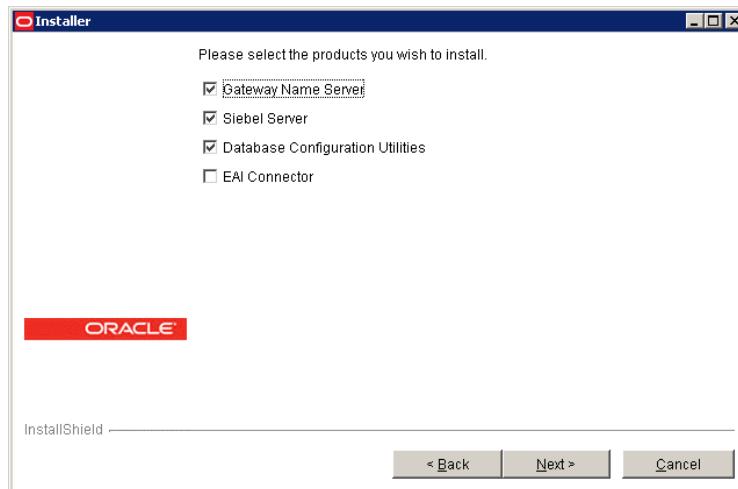
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13 of 34

13

## Install the Enterprise

- Use the Siebel Enterprise Server installer to install the Gateway Name Server, Siebel Servers, Database Configuration Utilities, and EAI Connectors
  - ▶ Each component may be installed separately
  - ▶ Parameters include the directory name, setup type, and language

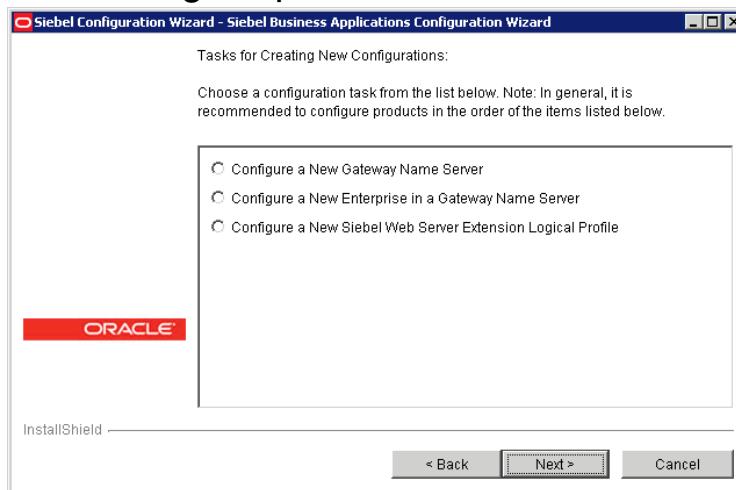


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14 of 34

## Run Siebel Enterprise Configuration Tool

- Once installation completes, the enterprise configuration tool runs automatically to set system parameters
  - ▶ Alternatively, run <InstallDir>/gtwysrvr/bin/ssincfgw.exe manually at a later time
- Create Gateway Name Server, Enterprise, and Siebel Web Server Extension logical profile



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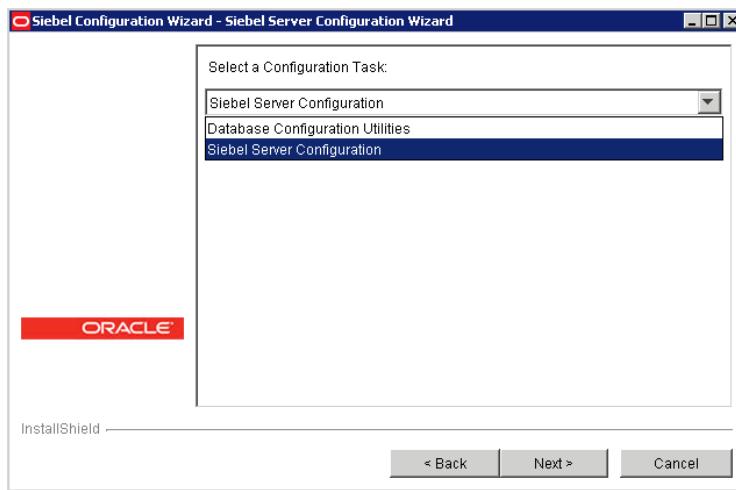
15 of 34

## Key Enterprise Configuration Parameters

- To configure a new Gateway Name Server requires:
  - ▶ Gateway Name Server port, language for server messages and logs, and service account
- To configure a new Enterprise requires:
  - ▶ An existing Siebel Gateway Name Server
  - ▶ An Enterprise name, Siebel file system, database platform and login information, and security type (database/LDAP/ANSI/custom)
- To configure a new Siebel Web Server Extension logical profile requires:
  - ▶ An existing Siebel Gateway Name Server and Enterprise
  - ▶ A directory in which to store the profile, network configuration parameters such as HTTP and HTTPS ports, High Interactivity and Standard Interactivity default login names, and an Enterprise security token

## Configure the Server(s)

- Once enterprise configuration completes, the server configuration tool runs automatically to set system parameters
  - ▶ Alternatively, run <InstallDir>/siebsrvr/bin/ssincfgw.exe manually at a later time
- Configure a Siebel Server



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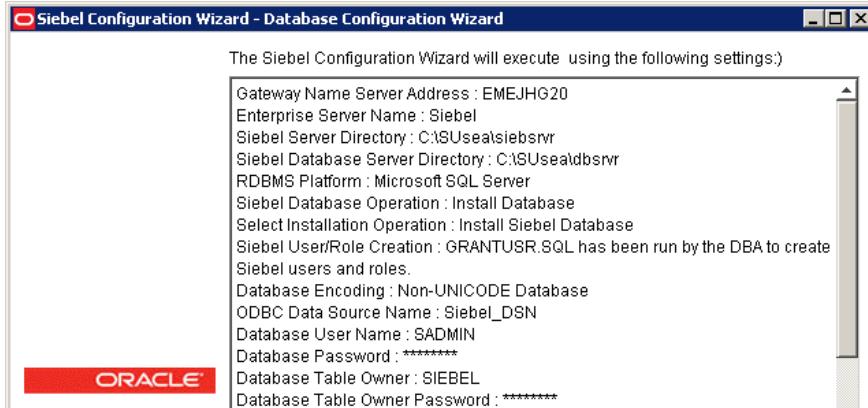
17 of 34

## Key Server Configuration Parameters

- Configuring a new Siebel Server requires:
  - ▶ An existing Gateway Name Server and Enterprise
  - ▶ The Siebel Server name
  - ▶ Which component groups to enable on that server
  - ▶ The language for server messages
  - ▶ The languages to deploy
  - ▶ Various port settings, including:
    - The connection broker port, used by the Siebel Web Server Extensions and other server components for communication
    - The Siebel Remote Synchronization Manager port
    - The database connection port
  - ▶ Server clustering information

## Install the Database

- Run grantusr.sql in the dbsrvr/<RDBMS> directory on the database created during pre-installation
- Manually run the database configuration utility and install a new database
  - ▶ Creates appropriate schema and populates database with seed data
  - ▶ Optionally, enter license key during database initialization

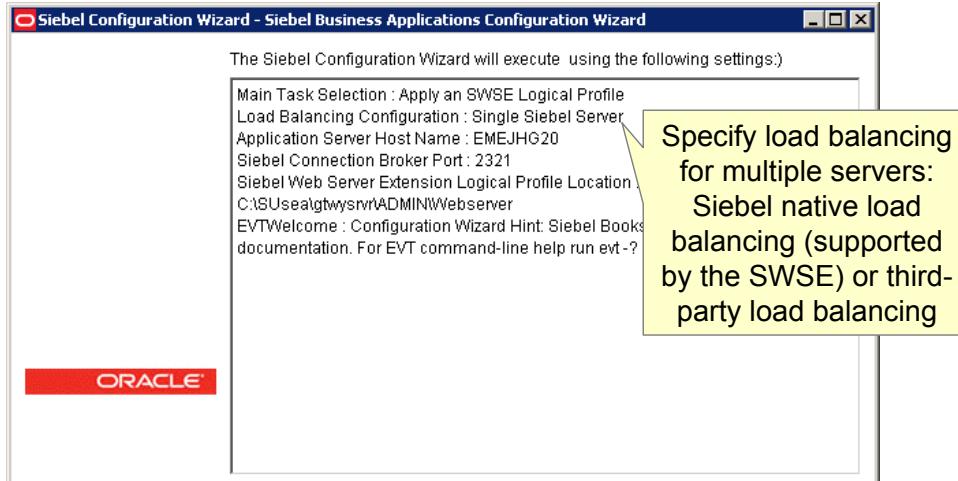


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19 of 34

## Install the Siebel Web Server Extensions

- Use the SWSE installer to install the Siebel Web Server Extension on the machine hosting the Web server
  - ▶ The Siebel Enterprise Server must already have been run to generate the Enterprise-specific SWSE profile
  - ▶ Specify parameters, including load-balancing strategy for multi-server installations and connection broker port



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20 of 34

## Install Additional Applications

- Install the Siebel Mobile or Siebel Developer Web clients on individual user machines
  - ▶ Both applications use the Siebel Web Client installer
- Install Siebel Tools on development machines
- (Optional) Install the Sample database on development machines
  - ▶ Pre-populated database allowing testing of configuration changes
- (Optional) Install Siebel Management Server to support the Application Deployment Manager (ADM) or Diagnostic Console
- (Optional) Install Siebel Update Server and clients to support multi-server updates

0/4

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## Verification Tasks

Check Installation Logs

Verify Services

Run EVT

Log In to Applications

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22 of 34

## Check Installation Logs

- Every step of configuration generates a log file:
  - ▶ Siebel Gateway Name Server configuration log is /gtwysrvr/log/sw\_cfg\_util.log
  - ▶ Siebel Server configuration log is /siebsrvr/log/sw\_cfg\_util.log
  - ▶ Siebel Web Server Extention configuration log is /SWEApp/log/sw\_cfg\_util.log
- Check these logs for severe or fatal errors

Informational messages are listed as GenericErrors with a severity level of 1

```

sw_cfg_util.log - Notepad
File Edit Format View Help
2006-10-21 23:12:08,0000-00-00 00:00:00 +0000 00000000 001 003f 0001 09 sw_cfg_util 2708 2588 C:\Susea\siebsrvr\log\sw_C...
GenericLog GenericError 1 0000007453a0a94:0 2006-10-21 23:12:08 Executing step: CreateOrExisting
GenericLog GenericError 1 0000007453a0a94:0 2006-10-21 23:12:08 Executing step: MainAction
GenericLog GenericError 1 0000007453a0a94:0 2006-10-21 23:12:08 Executing step: TempJTCHelpURL
GenericLog GenericError 1 0000007453a0a94:0 2006-10-21 23:12:08 Executing step: TempIdCentricRoot
GenericLog GenericError 1 0000007453a0a94:0 2006-10-21 23:12:08 Executing step: GatewayHost
GenericLog GenericError 1 0000007453a0a94:0 2006-10-21 23:12:08 Executing step: EnterpriseName
GenericLog GenericError 1 0000007453a0a94:0 2006-10-21 23:12:08 Executing step: SiebelServerRoot
GenericLog GenericError 1 0000007453a0a94:0 2006-10-21 23:12:08 Executing step: DbsrvrRoot
GenericLog GenericError 1 0000007453a0a94:0 2006-10-21 23:12:08 Executing step: ResourceLanguage
GenericLog GenericError 1 0000007453a0a94:0 2006-10-21 23:12:08 Executing step: DatabasePlatform

```

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23 of 34

13

## Verify Services

- Verify that the Siebel Gateway Name Server service is running
- Verify that the Siebel Server services are running on each machine hosting a server



## Run EVT

- Use the Environment Verification Tool to check the status of your enterprise
  - ▶ Tool reads evt.ini file to determine what checks to perform
  - ▶ Tool supports checking Siebel Gateway Name Server, Siebel Server, Siebel Web Server Extension, third-party Web server, and third-party database
  - ▶ Output can be text, text file, HTML, or HTML file
  - ▶ For complete details on using the EVT, see your platform-specific Installation Guide

13

## EVT Example

- The following example runs the EVT with the default options and outputs the results to output.html

The –o flag specifies the output file format

```
C:\sea77\siebsrvr\BIN>evt -o HTML > c:\temp\output.html  
Running checks defined in file [evt.ini]. Please wait..
```

### Database Setup Checks

Please upgrade Oracle Client version to 8.1.7.4, 9.2.0.4 - the current version is not defined

The output is color-coded for readability

### Environment Settings

USERDUMP is not installed - It is recommended to install this utility using the following instructions <http://support.microsoft.com/?kbid=241215>. Please rerun EVT after installation if required.

Environment variable SIEBEL\_STRING\_REFCOUNT has correctly not been defined

### Network Configuration Checks

TCP parameter TcpTimedWaitDelay is correctly set to 30 - required value is 30

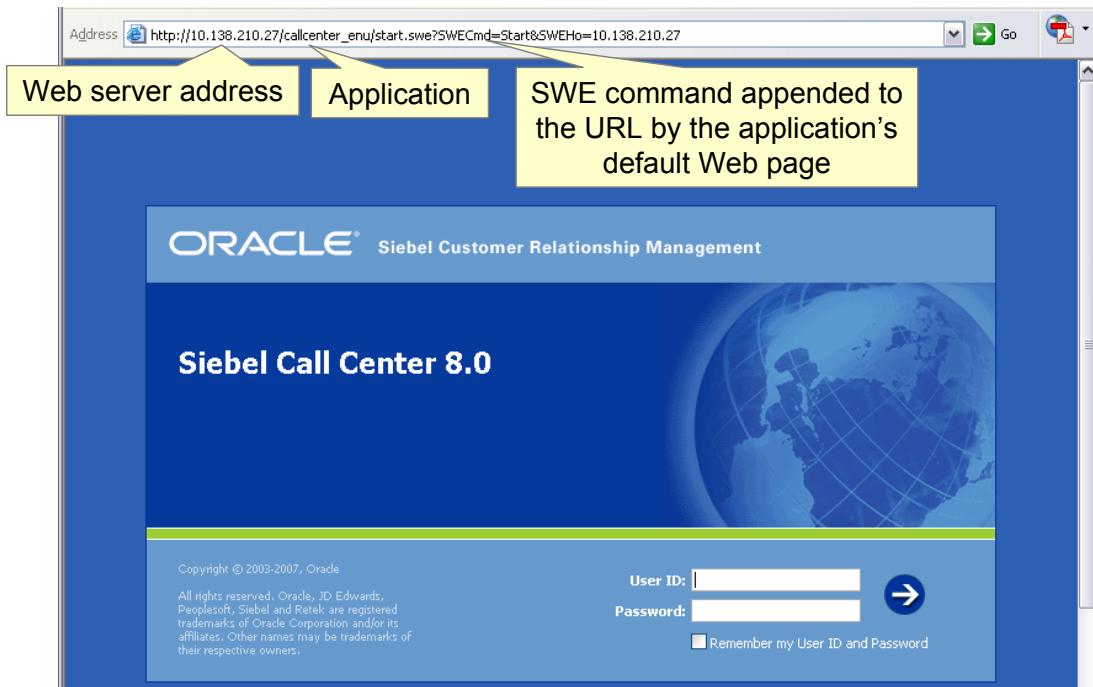
TCP parameter MaxUserPort is correctly set to 65534 - required value is 65534

TCP parameter MaxFreeTcbs is correctly set to 10000 - required value is 10000

TCP parameter MaxHashTableSize is correctly set to 2048 - required value is 2048

## Log In to Applications

- Log in to the Siebel application to confirm connectivity to the Web server and Siebel server



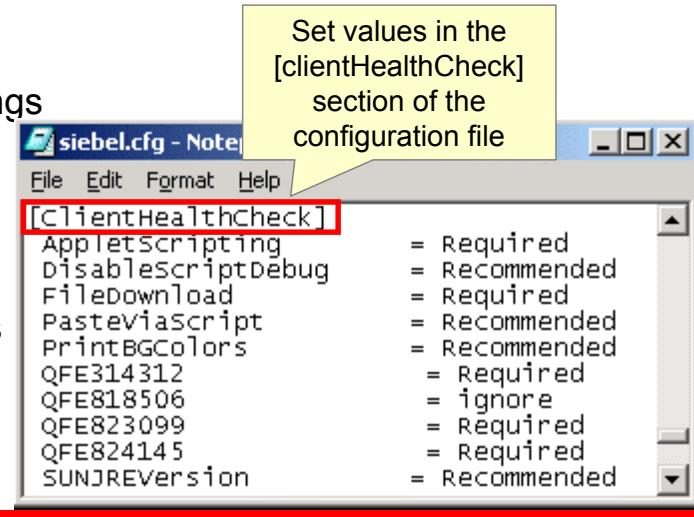
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27 of 34

13

## Browser Health Check

- Is a utility that runs on the browser to verify that it is properly configured for High Interactivity
  - ▶ Runs when the Web client is invoked if it is enabled in the [SWE] section of siebel.cfg
- Checks the client environment on which the Siebel application is running
  - ▶ Internet options
  - ▶ Java setting
  - ▶ Environment/registry settings
- Performs checks using values set in the application configuration file
  - ▶ Each check can have one of the following values
    - Required
    - Recommended
    - Ignore



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28 of 34

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## Multi-Server Updates

- The Siebel Update Server provides a single administration point for patching and updating multiple Siebel servers
- Allows quick monitoring of each server's current patch level
- Supports both push and pull models of software updates
  - ▶ Administrator can send updates out to all servers (push)
  - ▶ Servers can periodically query the update server for updates (pull)

Siebel Update Server provides a centralized administration point for managing updates on Siebel servers

The screenshot shows the Siebel Update Service interface. On the left, there is a sidebar with links like Welcome Assistant, Evaluation Assistant, and Latest Help Topics. The main area is titled 'Start Page' and shows 'Recent Activity' with a table of recent updates:

Name	Type	Last Modified	User Name
(ENU) Client 8.0.0.0	Product Version	11/22/2006	administrator
(ENU) Client 8	Product	11/22/2006	administrator
Siebel Enterprise Servers 8.0.0.0 Install PackageUpdate	Product	11/22/2006	administrator
Siebel Enterprise Servers 8.0.0.0	Product Version	11/22/2006	administrator
Siebel Enterprise Servers 8	Product	11/22/2006	administrator

Below this is a 'Featured Content' section with 'Alerts' and 'Customer Usage'. The 'Customer Usage' chart shows 5000000 total users and 7500000 purchased users.

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29 of 34

13



## Siebel Update Server

- Is a Web-based installation tool based on Macrovision Installshield
  - ▶ Uses a Tomcat/JSP Web server on the Update Server
  - ▶ Includes a local database on the Update Server for storing all product information across an enterprise
- Currently supports server updates and patches
  - ▶ Gateway Name Server, Siebel Enterprise, Siebel Server, Siebel Web Server Extension, and so forth

## Siebel Update Server Architecture

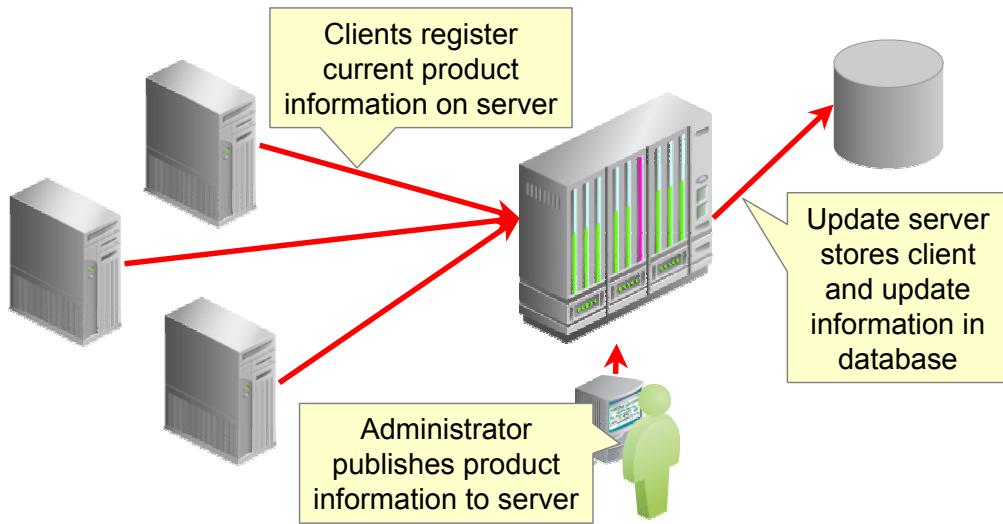
- A single update server provides a central access point to multiple clients
  - ▶ Siebel Update Server software is installed on server
  - ▶ Siebel Update Client software is installed on each client
    - Clients have other Siebel software installed, such as Siebel Server or Siebel Web Server Extension





## Siebel Update Server Functionality

- Clients register current software information on server
  - ▶ Currently installed software and version information
  - ▶ Stored in database on server
- Administrator publishes product update information to server
  - ▶ Location of update, version information, and so forth

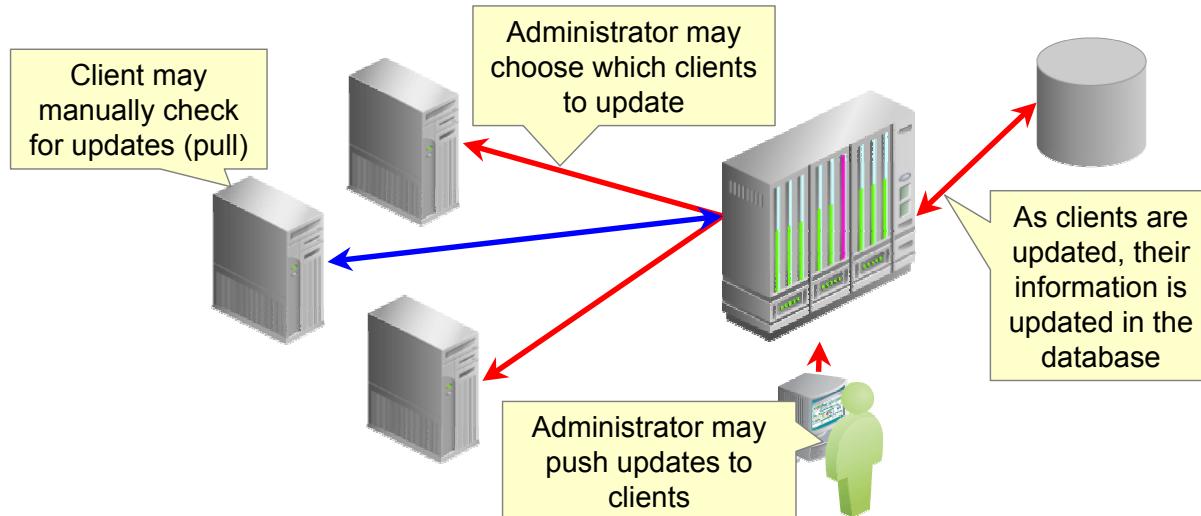


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32 of 34

## Siebel Update Server Functionality Continued

- Administrator may select client machines and schedule updates for them (push method)
- Clients may check for updates and download them when it is convenient (pull method)



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33 of 34

### Recommended Practice

The push method is recommended because the pull method may result in unexpected server restarts, for example, after downloading a patch that requires a restart.



## Module Highlights

- Installing Siebel applications is a three-step process:
  - ▶ Perform pre-installation tasks
  - ▶ Perform software installations
  - ▶ Perform post-installation tasks
- Pre-installation tasks include planning the topology, verifying prerequisites, and creating required objects such as the Siebel database
- Software installations require multiple installers, which guide you through the installation process step-by-step and automatically run the appropriate configuration tools
- Post-installation tasks include checking the installation logs, checking the services, running the EVT, and logging in to the application
- Siebel Update Server supports multi-server updates



***Siebel 8.0 Essentials***

## **Module 14: Siebel Application Architecture**

14

14

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## Module Objectives

- After completing this module you should be able to:
  - ▶ Describe the major types of object definitions
  - ▶ Describe the relationships between them
- Why you need to know:
  - ▶ Enables you to explore an existing application effectively
  - ▶ Provides the foundation you need to configure the object definitions that form the basis of an application



## The Siebel Application Architecture

- Recall that the Siebel Application consists of:
  - ▶ An execution engine that provides the application behavior
    - The Siebel Server(s); more specifically, their components
  - ▶ Configuration files and the Siebel Gateway Name Server that specify operating parameters for the execution engine
    - Most configuration parameters are stored in the Gateway Name Server
  - ▶ A relational database that stores user data
  - ▶ A set of physical User Interface (UI) files that specify how to render the UI in the user's
  - ▶ A Siebel Repository File (SRF) containing compiled object definitions

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3 of 22

### Reference

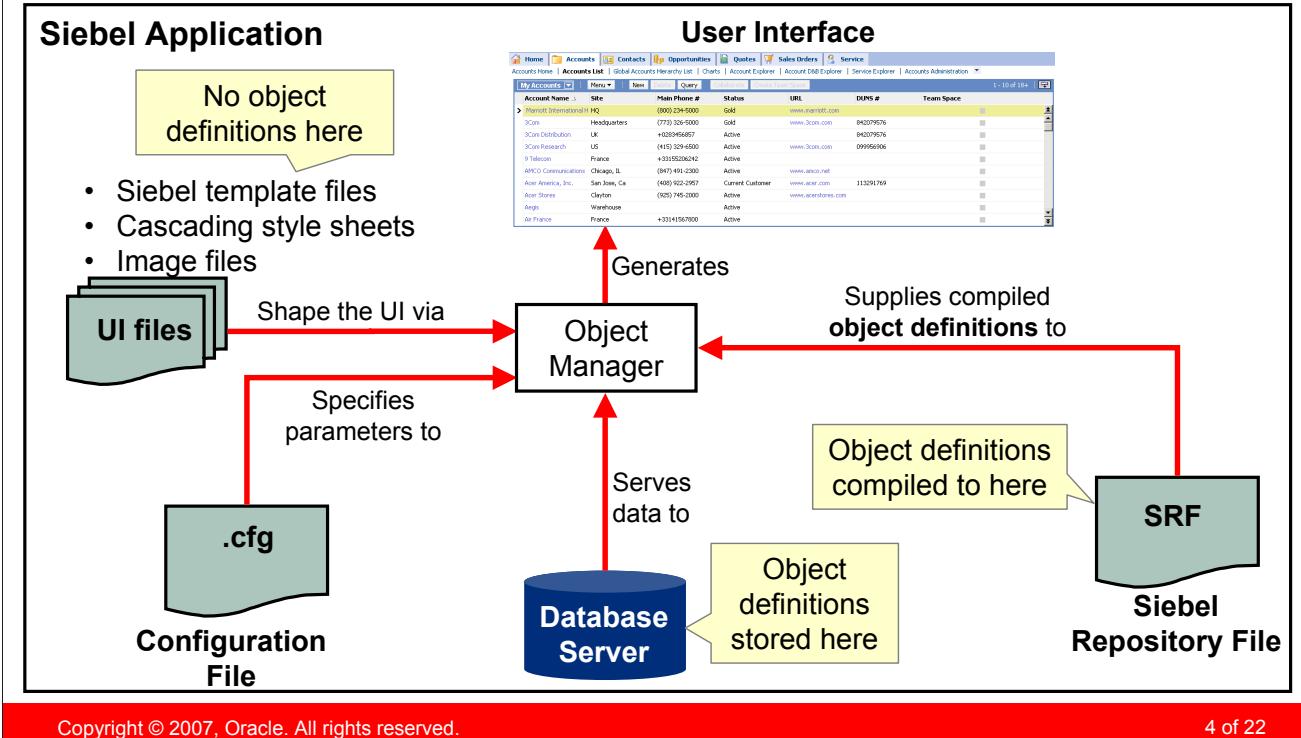
Configuring Siebel Business Applications: Overview of Configuring Siebel Applications

14

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## The Siebel Application Architecture continued

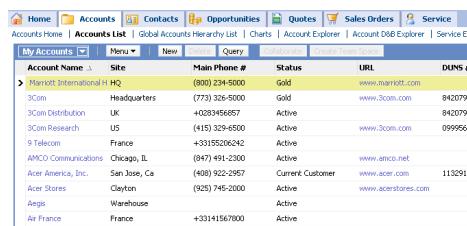
- Object definitions are created, modified, and stored in special tables in the database and compiled to the SRF



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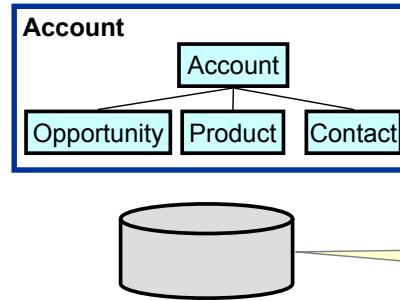
## Siebel Repository File (SRF)

- Contains compiled *object definitions* that specify:
  - ▶ Presentation of data
  - ▶ Business logic
  - ▶ Physical table storage

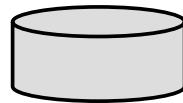


A screenshot of the Siebel Accounts List interface. The top navigation bar includes links for Home, Accounts, Contacts, Opportunities, Quotes, Sales Orders, and Service. Below the navigation is a toolbar with buttons for New, Query, and Refresh. The main area displays a table titled 'Accounts List' with columns: Account Name, Site, Main Phone #, Status, URL, and DUNS #. The table lists various accounts such as Marriott International HQ, 3Com, 3Com Distribution, 3Com Research, 9 Telecom, AMCO Communications, Acer America, Inc., Acer Stores, Aegis, and Air France, each with their respective details.

UI layer  
definitions



Business layer  
definitions



Data layer  
definitions

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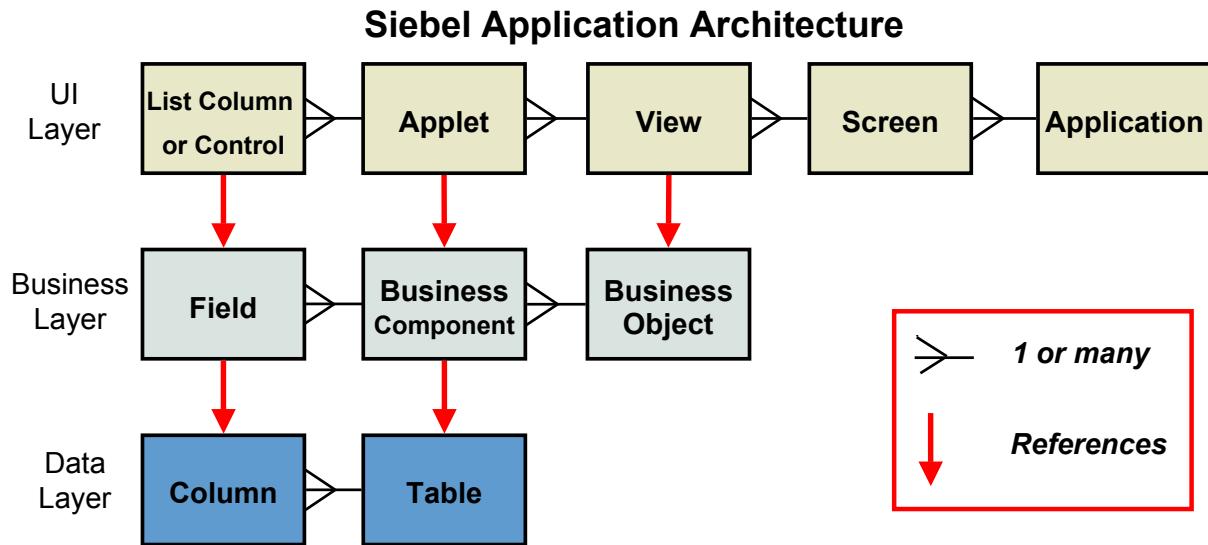
5 of 22

14

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## Object Definitions

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

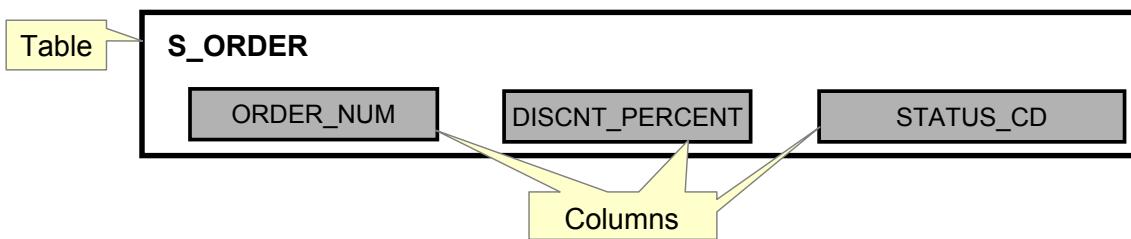


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6 of 22

## Data Layer

- Data layer object definitions specify the logical structure of the physical database
  - ▶ Definitions are metadata, not data
- In the Data layer, there are two principal data object definitions:
  - ▶ Table definitions
  - ▶ Column definitions



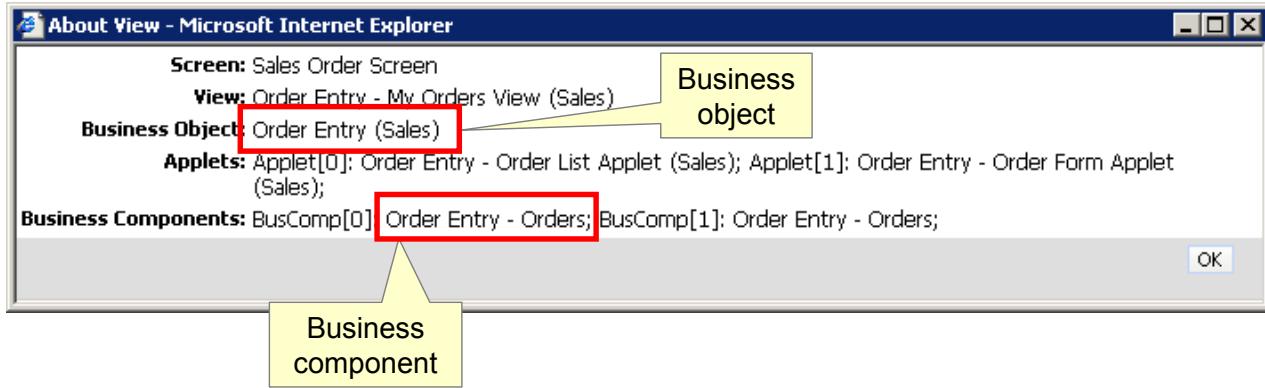
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7 of 22

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## Business Layer

- Business object definitions specify the business logic for the application
- In the Business layer, there are two principal objects:
  - ▶ Business component
  - ▶ Business object

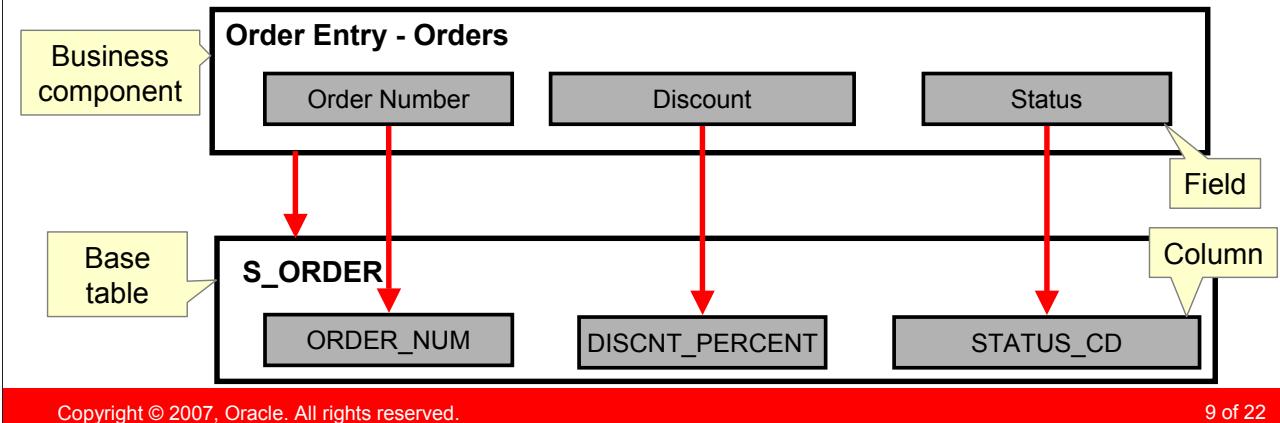


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8 of 22

## Business Component (BC)

- Represents one fundamental business entity in the enterprise
  - ▶ For example: Service Request, Contact, Activity
- Represents a logical grouping of data from one or more tables
- Refers to a base table
- Consists of multiple fields that characterize the business component
  - ▶ Many fields within the business component reference columns in the base table



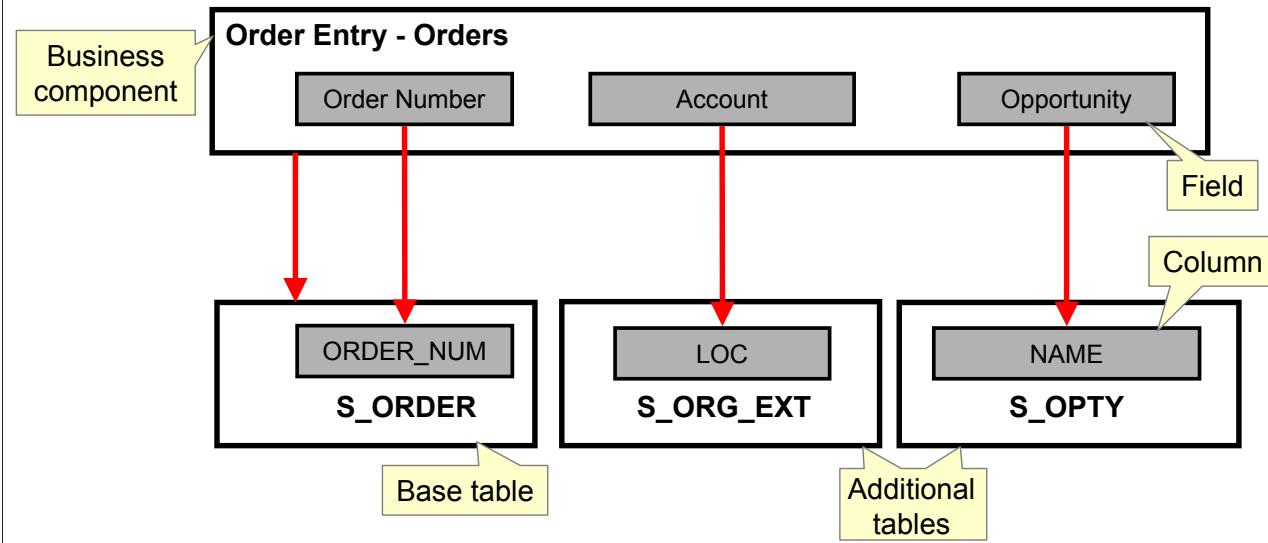
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9 of 22

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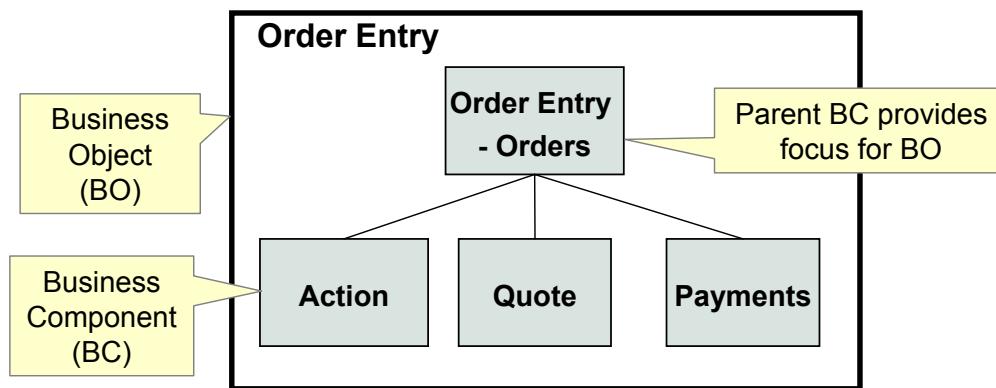
## Business Component Continued

- Can include data from additional related tables
  - ▶ Some fields map to columns in these related tables



## Business Object (BO)

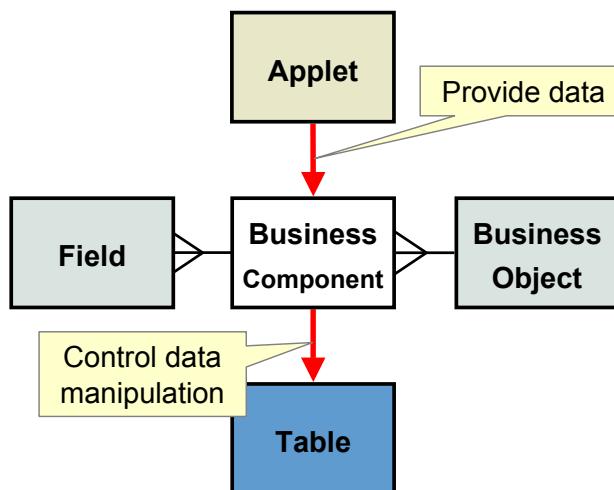
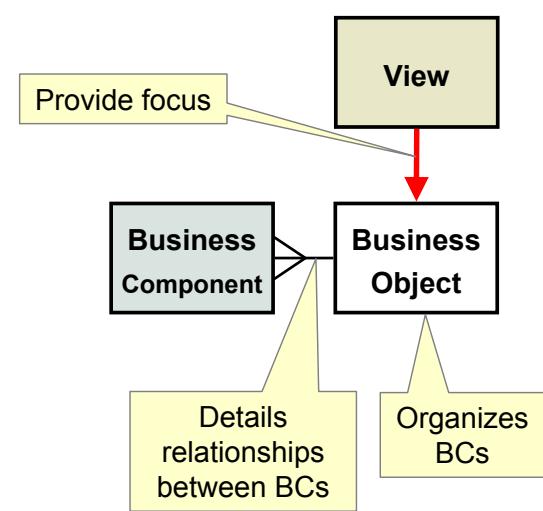
- Is a collection of related Business components (BCs)
- Represents a major functional area of the enterprise
  - ▶ For example, order management
- Contains specific details about the relationships between BCs
  - ▶ One BC is the master or driving BC
  - ▶ Organizes related business components



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## Comparing Business Components and Business Objects

- Business Objects provide focus to *views* and organize BCs
- Business Components provide data to *applets* and control data manipulation in tables

**Business Component****Business Object**

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12 of 22

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## UI Object Definitions

- There are five principal UI objects within the user interface

The screenshot shows a Siebel application window titled "Siebel Call Center - Microsoft Internet Explorer". The window displays a list of sales orders and a detailed view of one specific order.

**Annotations:**

- 1. Application:** A yellow box pointing to the top navigation bar.
- 2. Screen:** A yellow box pointing to the main content area containing the list of sales orders.
- 3. View:** A yellow box pointing to the detailed view of a sales order at the bottom of the screen.
- 4. Applet:** A yellow box pointing to the "Opportunities" tab in the top navigation bar.
- 5. List Column or Control:** A yellow box pointing to the "Opportunity" column in the list of sales orders, which contains the value "1000 Users of 768MB RDRAM".

**Sales Order List View:**

Order #	Type	Account	Last Name	Sales Rep	Priority	Status	Opportunity	Discount
I-2876302	Sales Order	Puma Sports, Inc.	Bochini	SADMIN	Medium	Open	1000 Users of 768MB RDRAM	
1-3542257	Sales Order	Telstra Corporation	Blondy	SADMIN	High	Closed		8%
1-3544286	Sales Order	Alberta Treasury Br	Metayer	SADMIN	Medium	Open		
1-3544320	Sales Order	Appicast	Kelly	SADMIN	High	Pending		
1-3544337	Sales Order	Appicast	Andersen	SADMIN	High	Pending		
1-3544354	Sales Order	Appicast	Thompson	SADMIN	Low	Pending		
1-3544371	Sales Order	Assurances Group	Limbach	SADMIN	Medium	Pending		
1-3544405	Sales Order	Broadband e2e	Mertens	SADMIN	Medium	Open		
1-3544694	Sales Order	LivePerson	Merideth	SADMIN	Medium	Open		
1-3544728	Sales Order	LivePerson	Ferguson	SADMIN	High	Pending		

**Sales Order Detail View:**

Menu	New	Delete	Query	Revise	Submit
Order #:*	1-2876302	Account:	Puma Sports, Inc.	Opportunity:	1000 Users of 768*
Revision:	1	Site:	Call Center	Status:	Open
Type:	Sales Order	Last Name:	Bochini	Created:	11/1/2001 9:30:51
					Currency: * USD

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13 of 22

14

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## Control and List Column Object Definitions

- Provide the ability to display and manipulate data

The screenshot shows the Siebel application interface. At the top, there is a navigation bar with links: Home, Accounts, Contacts, Opportunities, Quotes, Sales Orders, and Service. Below the navigation bar is a toolbar with buttons for Home, List, Line Items Analysis, and Charts. The main area displays two views:

- List View:** A grid titled "My Sales Orders" with columns: Order #, Type, Account, Last Name, Sales Rep, Priority, Status, Opportunity, and Discount. One row is highlighted in yellow, and a callout box points to it with the text: "This column displays data in a columnar list".
- Form View:** A detailed view for a specific sales order (Order # 1-2876302). It includes fields for Order #, Revision, Type, Sales Rep, Account, Site, Last Name, First Name, Opportunity, Status, Created, Due, Total, Price List, Currency, and Discount. A callout box points to the "Status" dropdown field with the text: "This control displays data in a field via a form".

At the bottom of the interface, there is a red footer bar with the text: "Copyright © 2007, Oracle. All rights reserved." and "14 of 22".

## Applet Object Definition

- A section of a view, such as a list or form
- References one business component whose data can be viewed and edited through the list or form
- Consists of list column or textbox control object definitions
  - ▶ Refer to fields in the applet-referenced business component
  - ▶ Specify how the data for the fields is displayed in the list or form

The diagram illustrates the mapping of fields from a Sales Order applet to an Order Entry - Orders business component. Red arrows point from specific fields in the applet to corresponding objects in the business component.

**Sales Order Applet Fields:**

- Order #: 1-2876302
- Revision: 1
- Type: Sales Order
- Sales Rep: SADMIN
- Account: Puma Sports, Inc.
- Site: Call Center
- Last Name: Bodini
- First Name: Augusto
- Opportunity: 1000 Users of 768f
- Status: Open
- Created: 11/1/2001 9:30:51
- Due:
- Total: \$1,762,010.70
- Price List:
- Currency: USD
- Discount:

**Business component (Order Entry - Orders):**

- Order Number
- Account
- Opportunity

A yellow callout box labeled "Business component" points to the "Order Entry - Orders" box. Three red arrows originate from the "Order #: 1-2876302" field in the applet, the "Account: Puma Sports, Inc." field in the applet, and the "Opportunity: 1000 Users of 768f" field in the applet, and point respectively to the "Order Number", "Account", and "Opportunity" fields in the business component box.

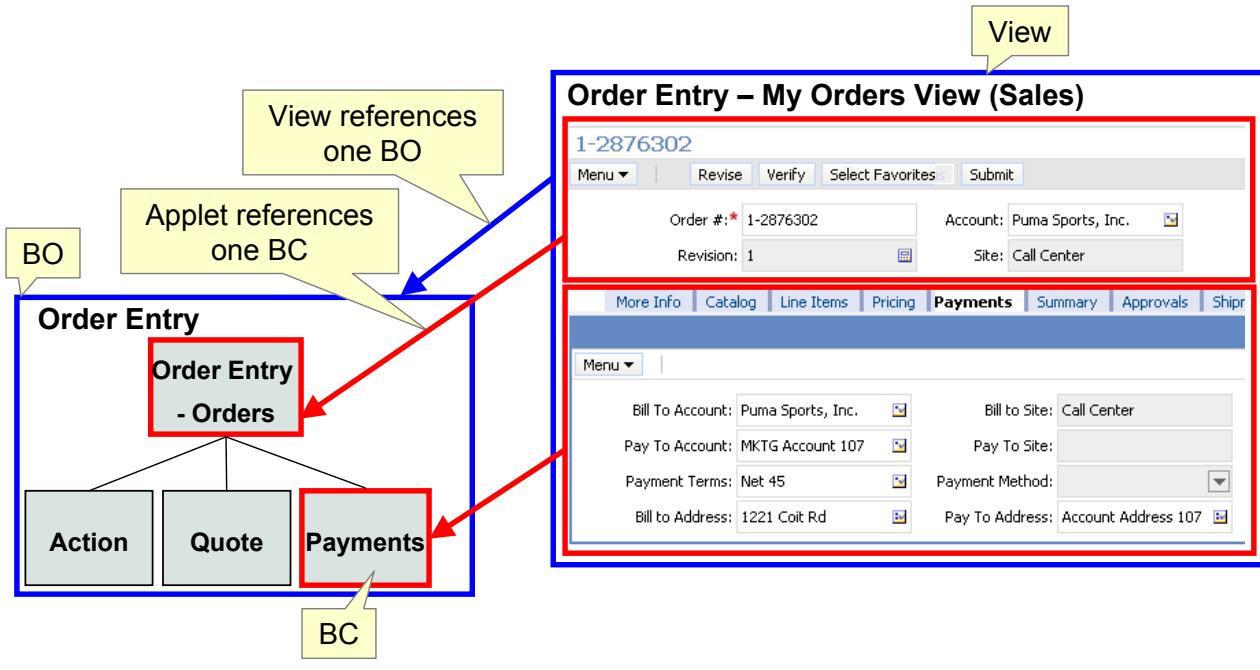
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15 of 22

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## View Object Definition

- Specifies a view in a Siebel application
- Contains multiple applet object definitions

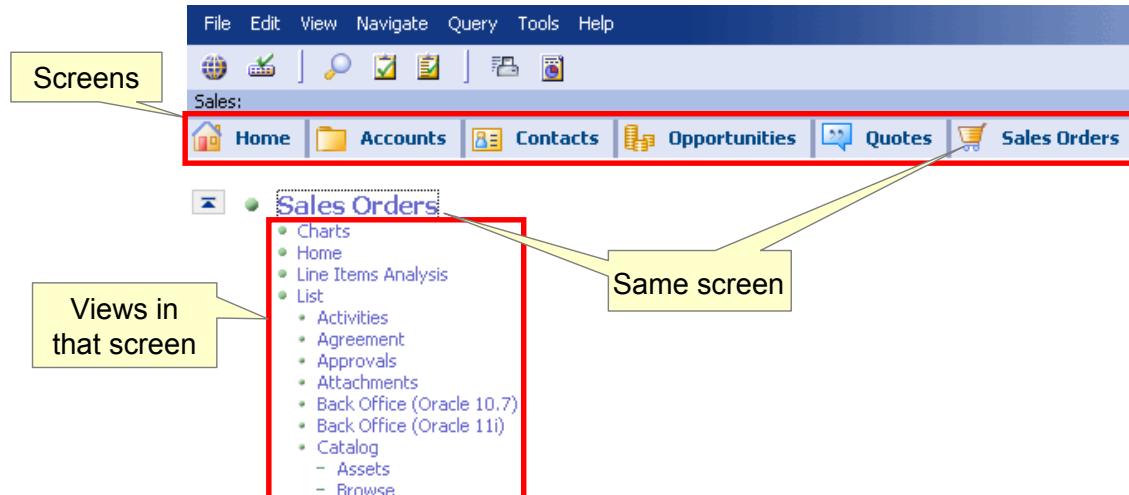


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16 of 22

## Screen Object Definition

- Specifies a screen in a Siebel application
  - ▶ Is associated with a major functional area of the enterprise
- Contains multiple view object definitions that usually refer to the same business object
  - ▶ Administration screens are an exception



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17 of 22

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## Application Object Definition

- Specifies a particular collection of screens available in a Siebel application

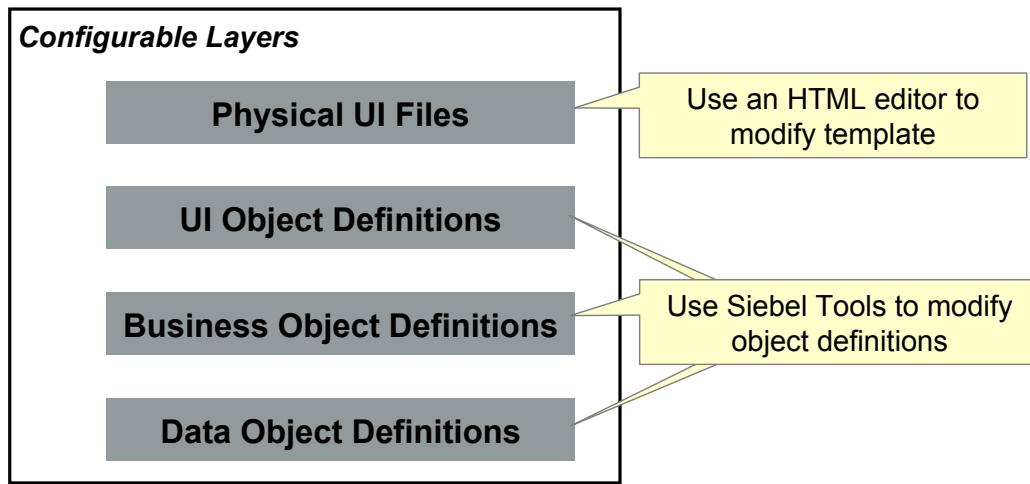


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18 of 22

## Configuring Siebel Applications

- Is accomplished by using:
  - ▶ An HTML editor to modify template and other physical UI files
  - ▶ Siebel Tools to modify object definitions





## Module Highlights

- Siebel architecture uses object definitions that specify application behavior
- Use Siebel Tools to:
  - ▶ Create, store, and modify object definitions in the database
  - ▶ Compile object definitions into the SRF for more efficient run-time access
- Object definitions are grouped into three layers:
  - ▶ UI Layer
    - Includes applications, screens, views, applets and list columns/controls
  - ▶ Business Layer
    - Includes business objects and business components
  - ▶ Data Layer
    - Includes tables and columns



## Lab

- In the lab you will:
  - ▶ Examine how UI layer object definitions reference business layer object definitions

14

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21 of 22



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*Siebel 8.0 Essentials*

## Module 15: Using Siebel Tools to Examine Object Definitions

15

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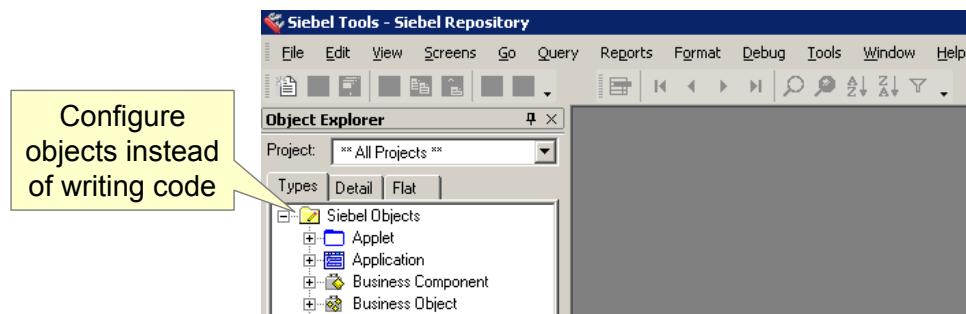
## Module Objectives

- After completing this module you should be able to:
  - ▶ Describe the differences between object types and object definitions
  - ▶ Use Siebel Tools to examine parent and child object definitions
- Why you need to know:
  - ▶ Enables you to configure Siebel applications effectively
  - ▶ Enables you to examine mappings that support bulk data transfer

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## Siebel Tools

- Is an Integrated Development Environment (IDE)
- Is a declarative configuration tool
  - ▶ Is used to create and modify object definitions (metadata) that define Siebel applications
    - Set properties for objects that control behavior
    - No need to modify source code or write SQL



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3 of 20

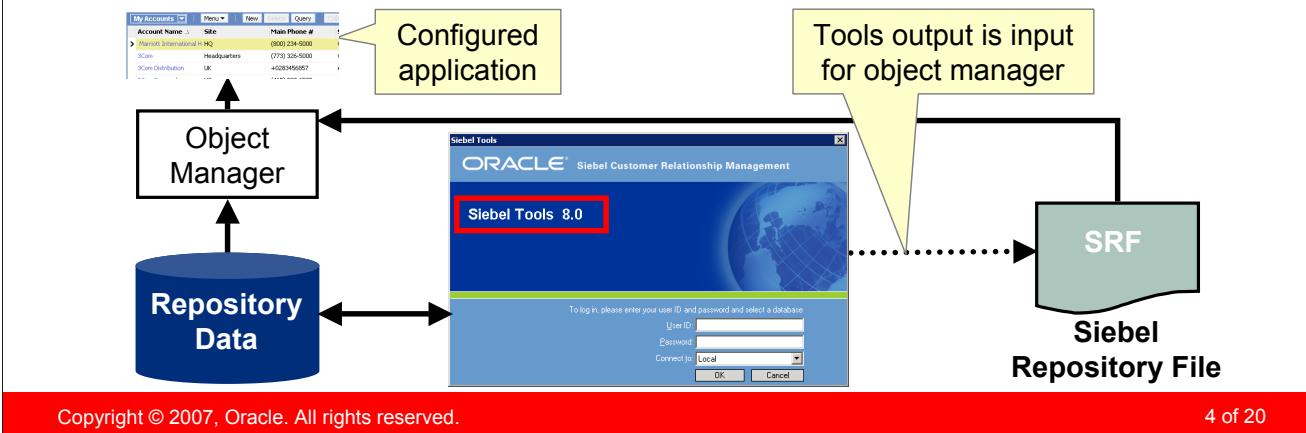
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## Object Definitions

- Are metadata that define elements of the user interface, business logic, and data storage
- Are stored in the Siebel Repository, a subset of tables in the Siebel database
- Are examined, created, and edited using Siebel Tools
- Are compiled into the repository file for a configured application

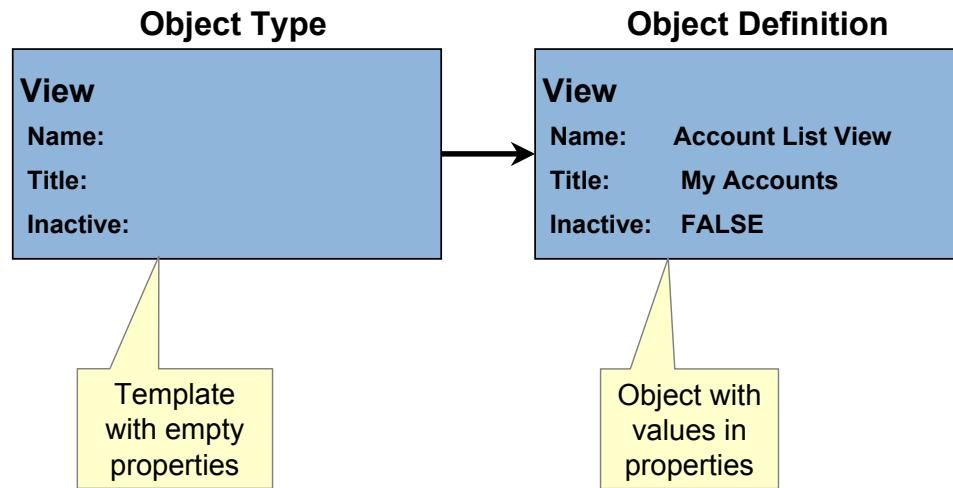


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## Object Definition

- Consists of a set of properties with assigned values
- Is created from a template called an object type



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### Object Terminology

The terms *object type* and *object definition*, as used here, should not be confused with similar terms (*object*, *object class*, *object instance*) found in object-oriented design and programming languages.

### Object Definition Properties

Object definition properties describe characteristics of the object definition and have the following value types: user-defined names, numerical values, Boolean values (TRUE and FALSE), Siebel-defined constants, and references to the names of other object definitions.

### Referencing Names

A property that references the name of another object definition must match the name exactly in spelling (spaces do count) and cases. A value of Prod is not the same as PROD.

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## Examining Object Definitions

- Use the Object List Editor (OBLE) to display object definitions
  - ▶ Select an object type in the Object Explorer (OE)
  - ▶ Object definitions appear in the Object List Editor

The screenshot shows the Siebel Tools interface with two main windows. On the left is the 'Object Explorer' window, which has a red border and contains a tree view of Siebel Objects under a project named '\*\* All Projects \*\*'. The tree includes categories like Applet, Application, Business Component, Business Object, Entity Relationship Diagram, Link, Pick List, Project, Screen, Table, View, Web Page, and Web Template. On the right is the 'Applet List' window, also with a red border, which displays a table titled 'Applets'. The table has columns for Name, Project, Business Component (which is highlighted with a red border), and Type. The 'Business Component' column lists various applets such as Account List Applet, Account List Applet (Delegated Admin), Account List Applet (Read-only), etc., each associated with a specific project and account type.

Name	Project	Business Component	Type
Account List Applet	Account (SSE)	Account	Standard
Account List Applet (Delegated Admin)	eApp Admin	Account (Delegated Admin)	Standard
Account List Applet (Read-only)	Division	Account	Standard
Account List Applet (SCW)	Account (SCW)	Account	Standard
Account List Applet (WCC Home)	Siebel Universal Agent	Account	Standard
Account List Applet - Collaboration	Collaboration	Account	Standard
Account List Applet - child	Contact (SSE)	Account	Standard
Account List Applet - child (SCW)	Contact (SCW)	Account	Standard
Account List Without Navigation Applet	Account (SSE)	Account	Standard
Account Manager's Tree Applet	Orgchart	Position	Standard
Account Mapping Popup Applet	Territory Management	Territory Account Mapping Inter Tabl	Standard
Account Mvg Applet	Account (SSE)	Account	MVG
Account Mvg Applet (Delegated Admin)	Admin	Account (Delegated Admin)	MVG
Account Mvg Applet - No Primary	Admin (SCW)	Account	MVG
Account Note Applet	Account (SSE)	Account Note	Standard

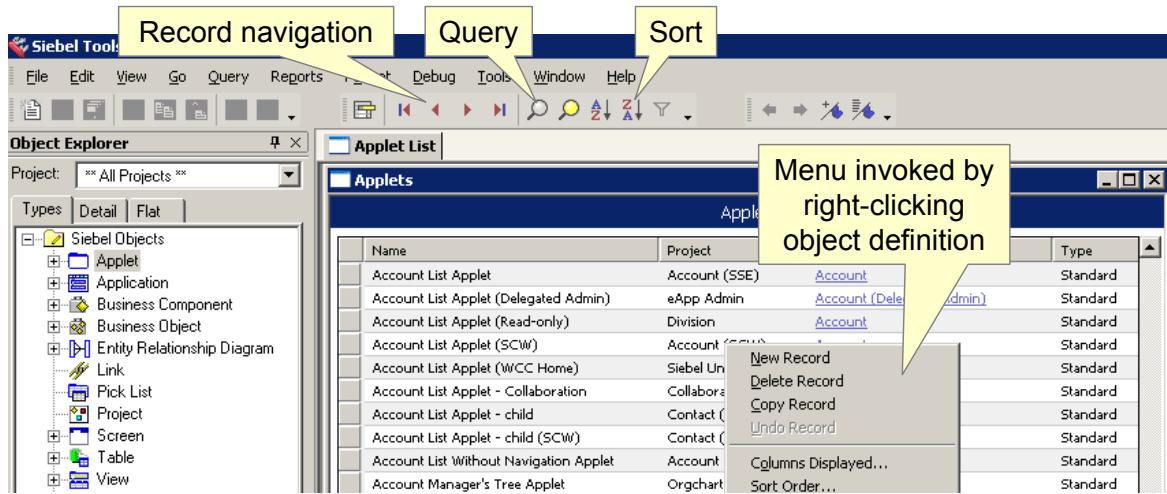
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## Siebel Tools User Interface

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- Differs from the client application
- Has toolbar icons for common user operations



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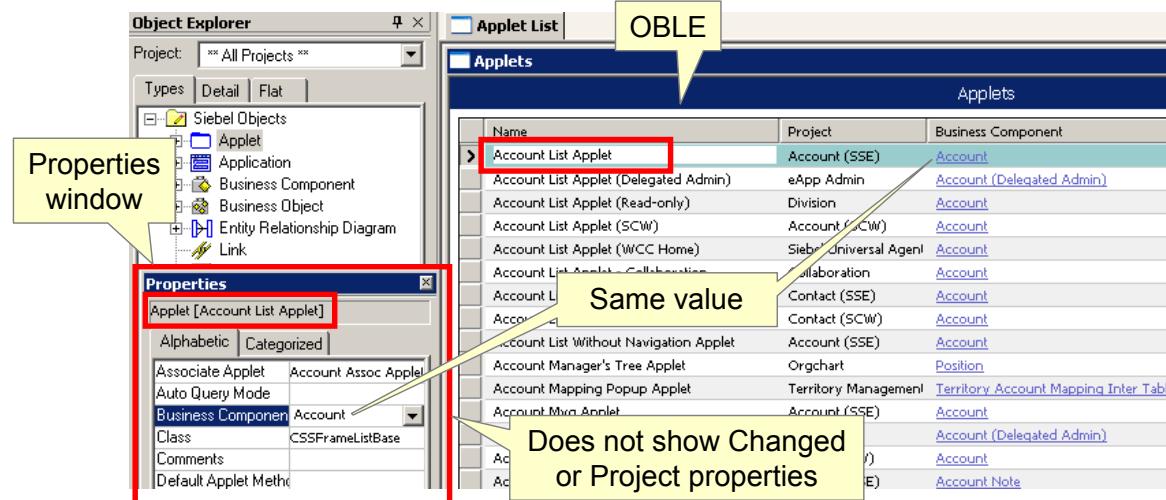
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## Properties Window

- Displays the properties for the object definition selected in the OBLE
- ▶ Select View > Windows > Properties Window
- ▶ Properties are listed in alphabetical order
- ▶ The value is shown next to property name



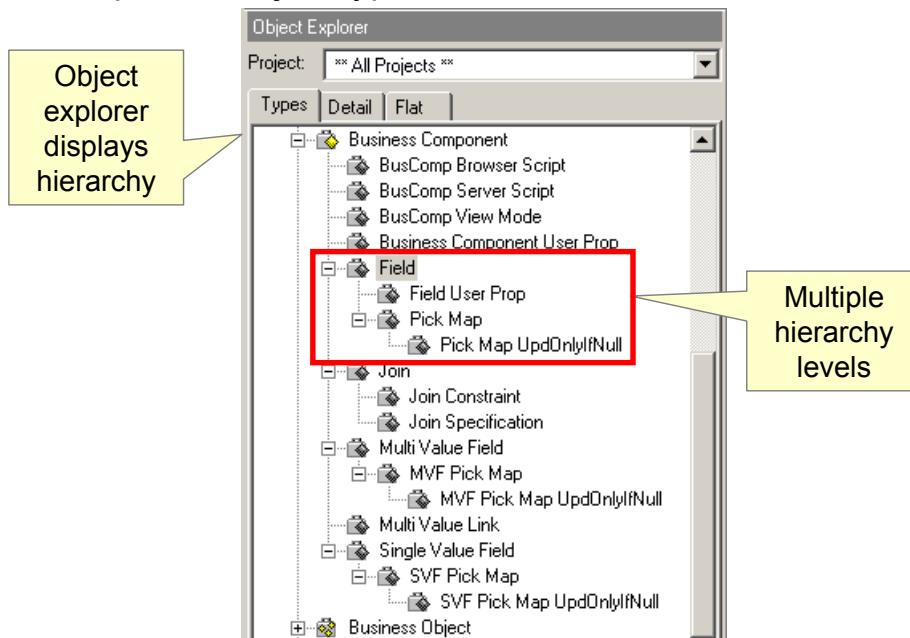
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## Hierarchy of Object Types

- Some object types contain child object types
  - ▶ For instance, Field is a child object type of the Business Component object type



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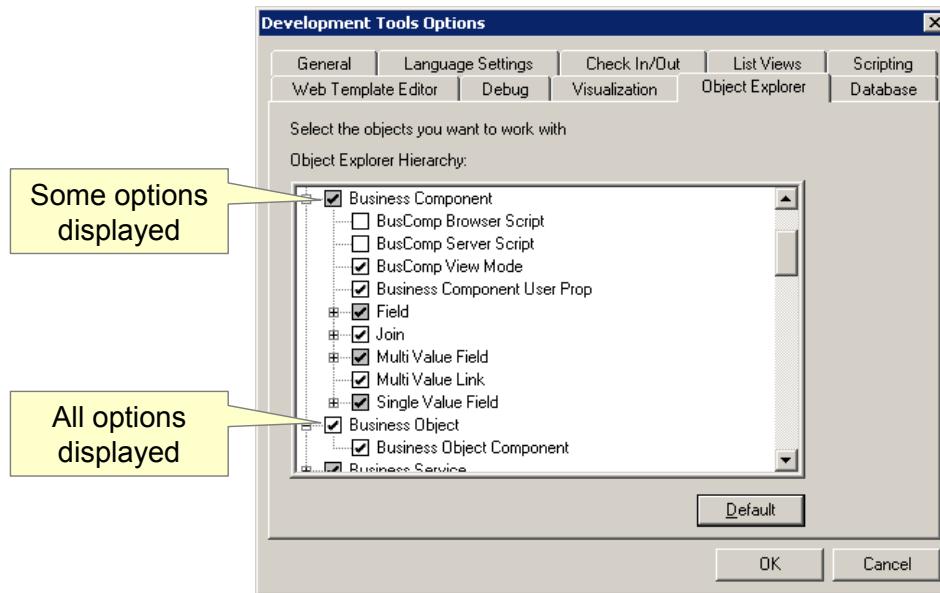


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## Object Explorer

- Displays by default a small set of the most commonly used object types
  - ▶ Select View > Options and click the Object Explorer tab to add or remove object types from the Object Explorer



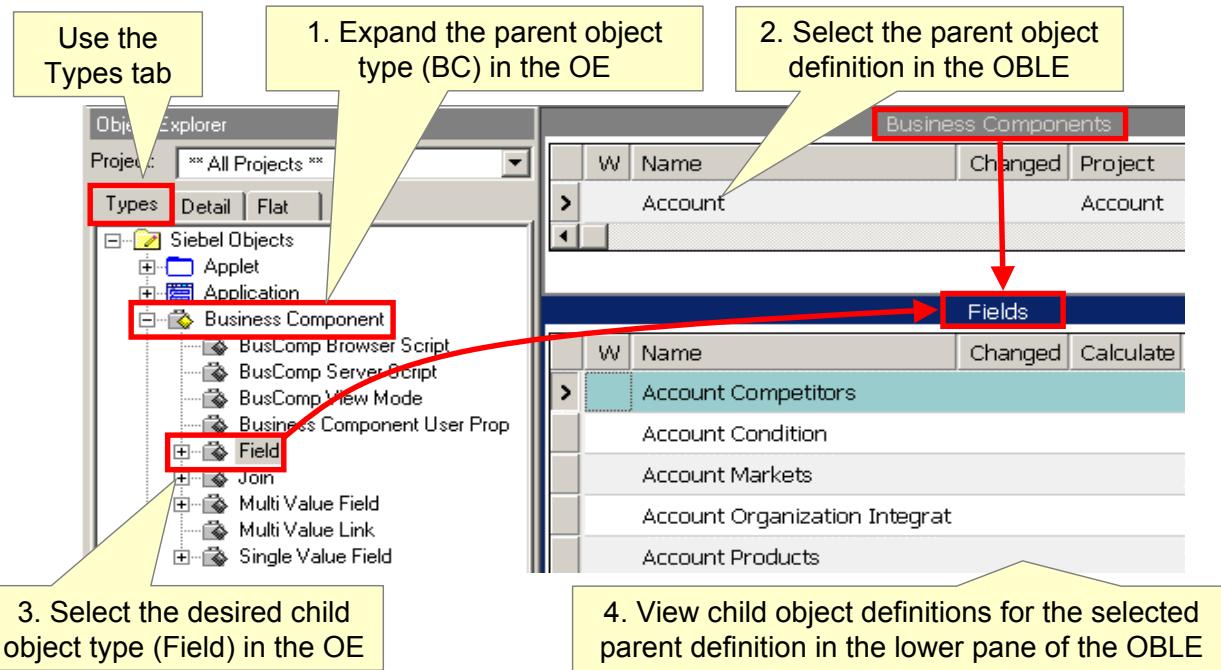
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## Viewing Parent/Child Object Definitions

- Select object types and definitions alternately to examine child object definitions



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## Additional Navigation Techniques

Hyperlinks

Back and Forward Buttons

Bookmarks

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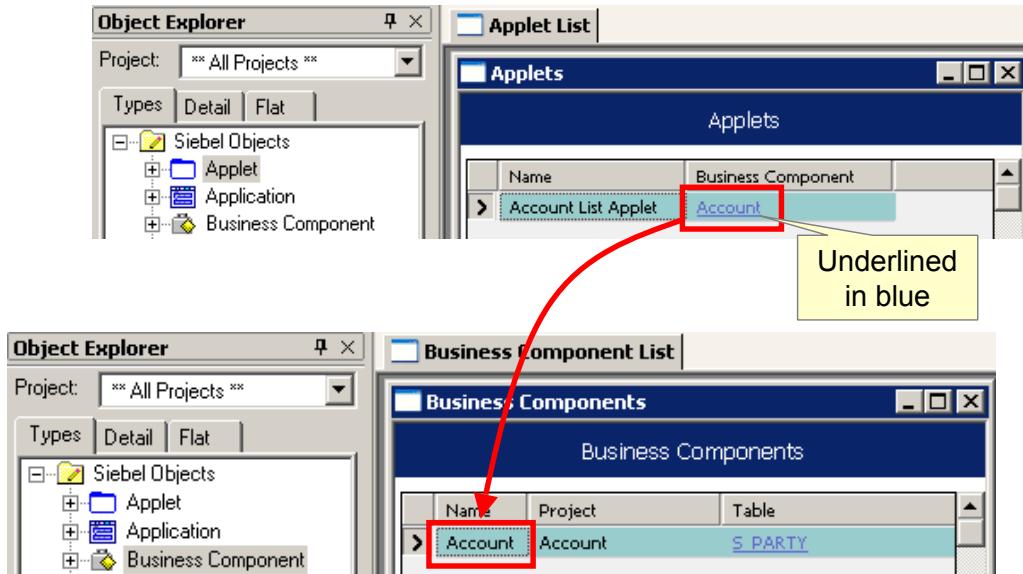
12 of 20

1/3

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## Hyperlinks

- Drill down on a hyperlink to navigate to that object definition
  - ▶ For example, applet to business component
  - ▶ For example, business component to table



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15

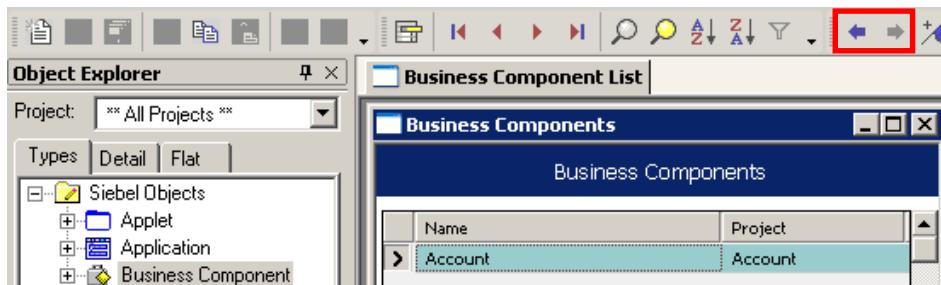
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### Using Drilldown

Siebel Tools users must have the Developer responsibility in order to drill down.

## Back and Forward Buttons

- Use the Back button to return to the object definition last examined
- Use the Forward button to return to the current object definition



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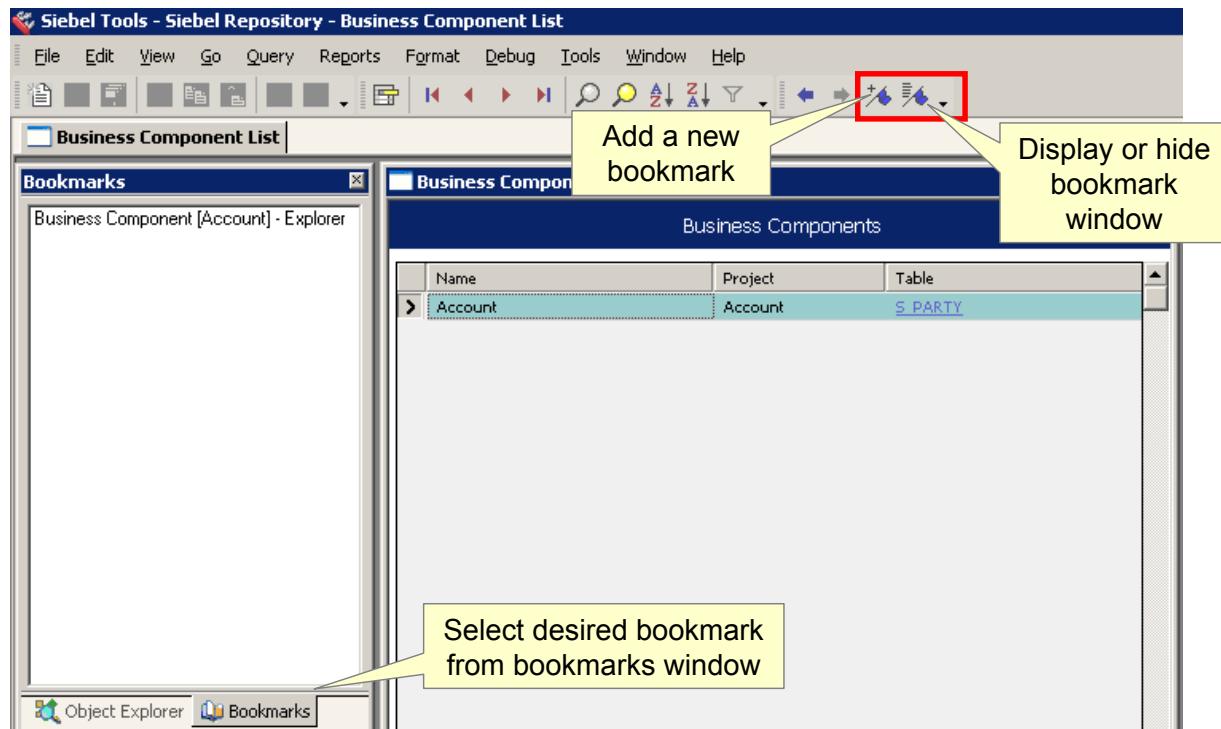
14 of 20

### Best Practice

The Forward and Back buttons have limited functionality; instead use bookmarks as a navigation aide. Bookmarks are discussed on the next slide.

## Bookmarks

- Use bookmarks to navigate directly to a specific object definition



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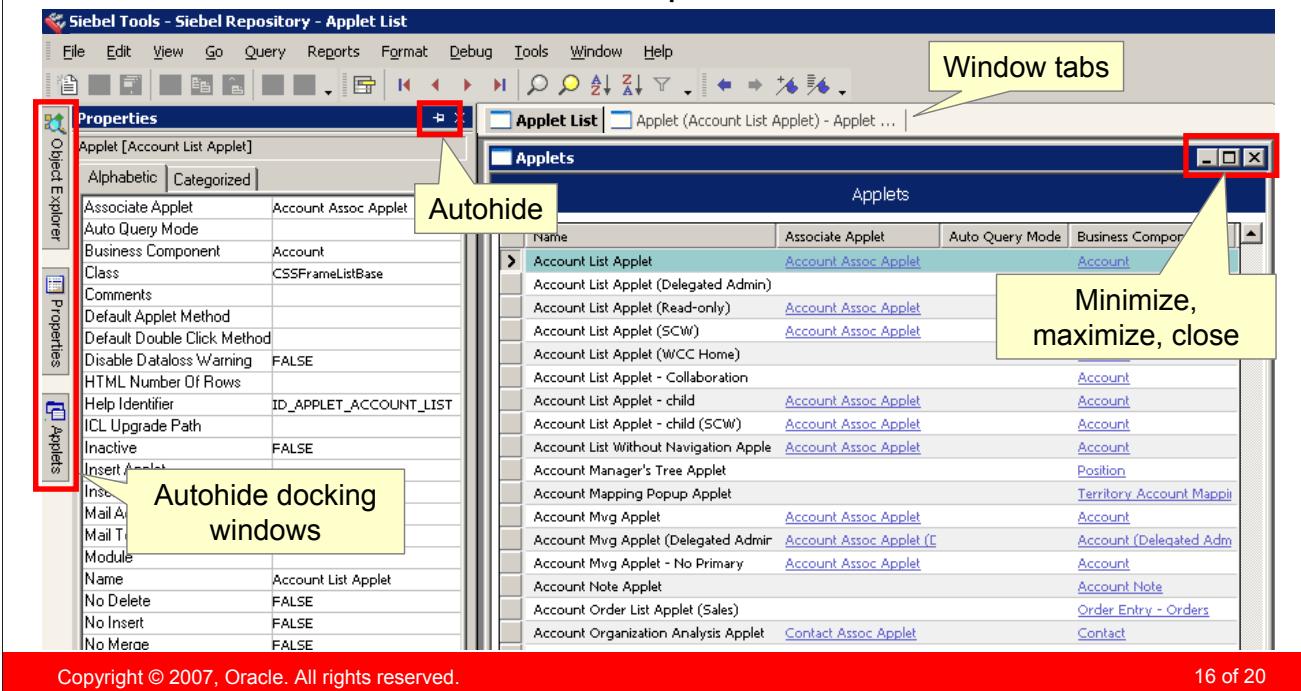
### Bookmarks

Bookmarks can serve very effectively as predefined queries.

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## Window Navigation

- Use dockable windows and tabs for frequently-accessed tools such as the Properties window
- Undock windows to resize and place



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16 of 20

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## Object Explorer: Flat Tab

- Removes all hierarchy and shows all object types in a single list
- Helps developers:
  - ▶ Find a child object with an unknown parent
  - ▶ See how object definitions and properties are typically used

**Object Explorer**

Project: [dropdown]

Types | Detail | **Flat**

- Chart Element
- Chart Element Locale
- Chart Locale
- Column
- Control**
- Control Locale
- Control User Prop
- Drilldown Object
- Own Object Locale

Select any object type in the OE

W	Name	Parent Applet
	Account Name	<a href="#">SWLS eChannel Action Action Detail Applet</a>
	Account Name Label	<a href="#">SWLS Activity Account Pick Applet</a>
	Account Name Label	<a href="#">SWLS Contact Account Pick Applet</a>
	Account Name Label	<a href="#">SWLS Account Association Applet</a>
	Account Number	<a href="#">SAP 4x Account Entry Applet</a>
	Account Number	<a href="#">SAP 4x Account Form Applet</a>
	Account Number	<a href="#">Account Form Applet (MO)</a>

Controls

Parent object definition displayed (parent applet for the control)



## Module Highlights

- Siebel Tools is a declarative configuration tool
- Object definitions consist of a set of properties with assigned values
  - ▶ Are created from a template called an object type
- The Object Explorer (OE) lists object types
- Object definitions appear in the Object List Editor (OBLE)
- Properties Window displays the object definition selected in the OBLE
- Flat tab removes all hierarchy and shows all object types in a single list



## Lab

- In the lab you will:
  - ▶ Use Siebel Tools to examine object definitions in the Siebel repository

*Tools navigation convention used in the labs*

Select Business Component :: Account | Field :: Account Role

Parent Object  
Type in OE

Parent Record  
in OBLE

Child Object  
Type in OE

Child Record  
in OBLE



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**Siebel 8.0 Essentials**

## **Module 16: The Siebel Data Model**

# **16**

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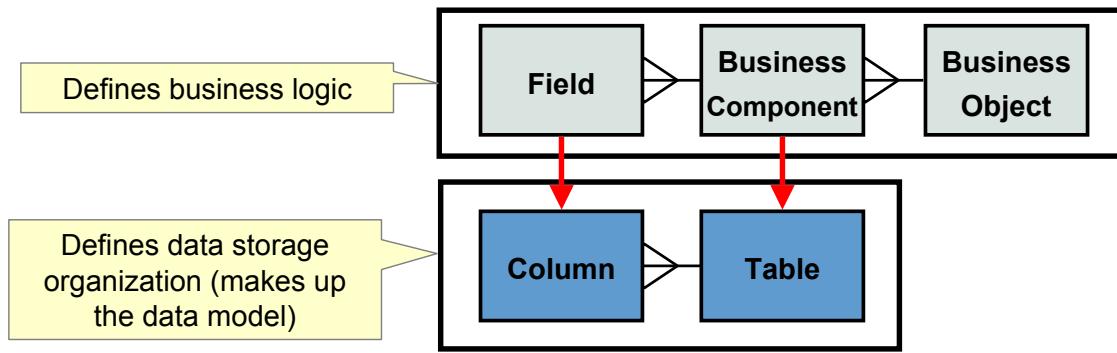
## Module Objectives

- After completing this module you should be able to:
  - ▶ Describe the purpose of the Siebel Data Model
  - ▶ Describe the role of primary and foreign keys, indexes, and user keys
  - ▶ Identify prominent tables in the Siebel Data Model
- Why you need to know:
  - ▶ Enables you to understand how data is accessed in existing Siebel applications
  - ▶ Enables you to understand how to map your business logic to the Siebel Data Model
  - ▶ Enables you to configure the Data layer as necessary for your implementation



## The Siebel Data Model

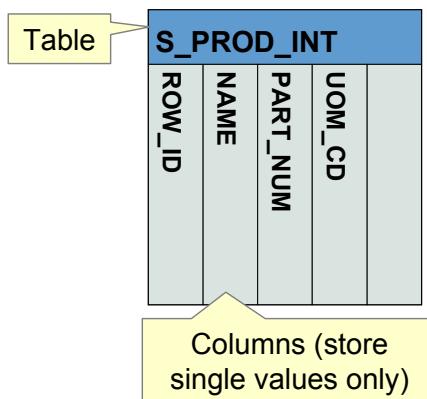
- Defines how the data used by Siebel applications is stored in a standard third-party relational database
  - ▶ Specifies the tables and relationships
- Is designed to support the data requirements across Siebel applications





## Siebel Data

- Is organized and stored in normalized tables in a relational database
  - ▶ Each table has multiple columns storing atomic data (single-value, cannot be logically further sub-divided)
  - ▶ The data schema is organized to eliminate repeated storage of data



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4 of 28

### Reference

Configuring Siebel Business Applications: Configuring Tables and Columns

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## Primary Key (PK)

- Is a column that uniquely identifies each row in a table
  - ▶ ROW\_ID serves as the primary key for Siebel tables

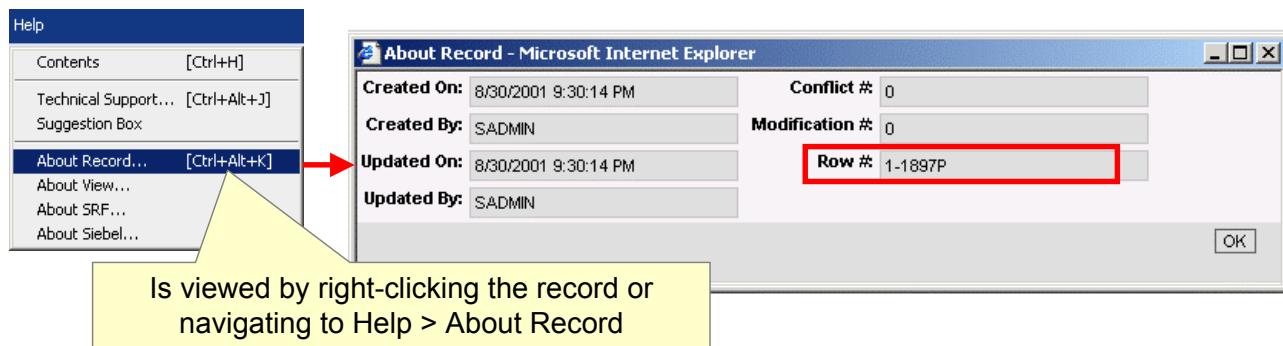
S_PROD_INT					
ROW_ID	NAME	PART_NUM	UOM_CD		

Primary key

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## ROW\_ID

- Is a column in every table
  - ▶ Contains a Siebel application-generated identifier that is unique across all tables and mobile users
- Is managed by Siebel applications and must not be modified by users



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## Understanding the Data Model

Tables

Columns

User Keys

Indexes

Relationships Between Tables

Extension Tables

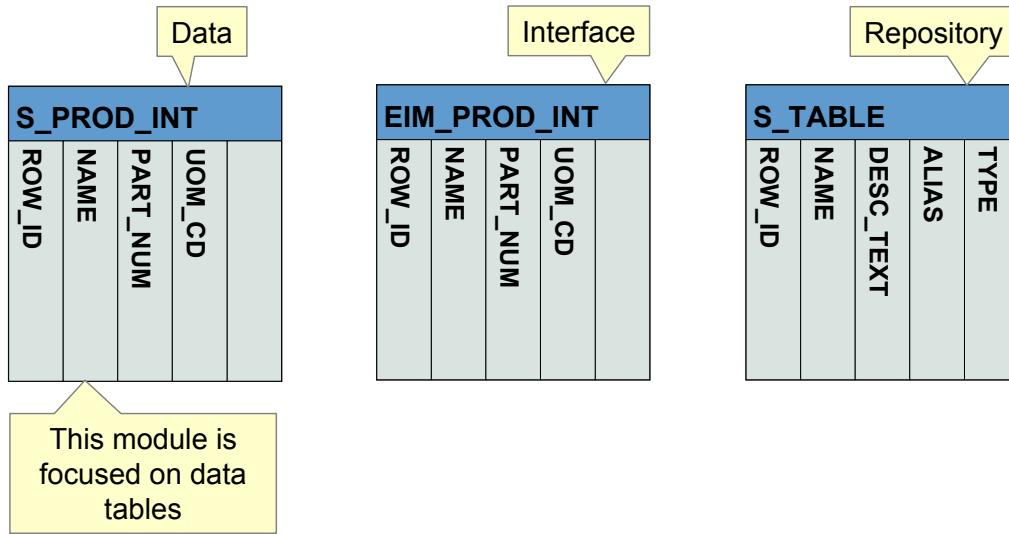
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## Tables

- Approximately 3,000 tables in the database
- Three major types: Data, Interface, and Repository



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8 of 28

**Creating the Schema** The database schema is created during the Siebel database server installation. Additional tables can be created by developers using Siebel Tools.

**Type** The type of a table is specified by its Type property.

## Data Tables

- Store the user data
  - ▶ Business data
  - ▶ Administrative data
  - ▶ Seed data
- Are populated and updated by:
  - ▶ Users through the Siebel applications
  - ▶ Server processes such as: Enterprise Integration Manager (EIM) and Assignment Manager
- Have names prefixed with S\_
- Are documented in the Siebel Data Model Reference

## Seven Prominent Data Tables

- Store data for the major business entities

Opportunity

S_OPTY
ROW_ID
STG_NAME
PROG_NAME
BDGT_AMT

Service Request

S_SRV_REQ
LAST_UPD
ASGN_DT
DESC_TEXT
SR_NUM
ROW_ID

Contact

S_CONTACT
MID_NAME
FST_NAME
LAST_NAME
ROW_ID

Asset

S_ASSET
MFG_DT
ROW_ID
SERIAL_NUM
ASSET_NUM
NAME
ROW_ID

Account

S_ORG_EXT
EMP_COUNT
ROW_ID
DIVISION
DEPT_NUM
DESC_TEXT
ROW_ID

Activity

S_EVT_ACT
OPTY_ID
PROJ_ID
TODO_CD
ACTIVITY_UID
ROW_ID

Internal Product

S_PROD_INT
NAME
ROW_ID
PART_NUM
ORDER_CST
PROD_CD

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10 of 28

## Columns

- Each table has multiple columns to store user and system data
  - ▶ Defined by Column child object definitions
- Columns determine the data that can be stored in that table

The screenshot shows the Oracle Siebel Object Explorer interface. On the left, the Object Explorer tree view is open, showing categories like Siebel Objects, Applet, Application, Business Component, Business Object, Entity Relationship Diagram, Link, Project, Screen, Table, Column, Index, User Key, and View. A red arrow points from the 'Column' node under 'Table' to the 'Columns' window on the right. The 'Columns' window has tabs for 'Tables' and 'Columns'. The 'Tables' tab is active, showing a list of columns with one item selected: 'S\_PROD\_INT'. The 'Columns' tab is also visible, displaying a detailed list of columns with their properties:

Name	Type	Physical Type	Length
ACCRUAL_RATE	Data (Public)	Number	22
ACTIVE_FLG	Data (Public)	Character	1
ALC_BELOW_SFTY_FLG	Data (Public)	Character	1
ALIAS_NAME	Data (Public)	Varchar	100
ALOC_ASSETS_FLG	Data (Public)	Character	1
APPLY_EC_RULE_FLG	Data (Public)	Character	1
AUTO_ALLOCATE_FLG	Data (Public)	Character	1
AUTO_SUBST_FLG	Data (Public)	Character	1

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## Column Properties

- Determine size and type of data that can be stored in column
- Limit proposed modifications to a standard application
- Do not edit existing properties

The screenshot shows the Siebel Object Explorer on the left and the Column List window on the right. The Object Explorer displays a tree structure of Siebel Objects, including Applet, Application, Business Component, Business Object, Entity Relationship Diagram, Link, Project, Screen, Table, and View. The Table node is expanded, showing Column, Index, and User Key sub-nodes. The Column List window has two tabs: 'Tables' and 'Columns'. The 'Tables' tab shows a list of tables, and the 'Columns' tab displays a detailed view of columns for a specific table. A yellow callout points to the 'Physical Type' and 'Length' columns in the 'Columns' table, which are highlighted with a red border. The 'Physical Type' column lists Data (Public) for most columns and Number for ACCRUAL\_RATE. The 'Length' column specifies lengths such as 22 for ACCRUAL\_RATE and 1 for ACTIVE\_FLG, ALC\_BELOW\_SFTY\_FLG, ALIAS\_NAME, ALOC\_ASSETS\_FLG, and APPLY\_EC\_RULE\_FLG.

Name	Type	Physical Type	Length
ACCRUAL_RATE	Data (Public)	Number	22
ACTIVE_FLG	Data (Public)	Character	1
ALC_BELOW_SFTY_FLG	Data (Public)	Character	1
ALIAS_NAME	Data (Public)	Varchar	100
ALOC_ASSETS_FLG	Data (Public)	Character	1
APPLY_EC_RULE_FLG	Data (Public)	Character	1

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12 of 28

2/6

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## Data Type and Length Properties

- Physical Type identifies the type of data to be stored
- Length determines the maximum size

Name	Type	Physical Type	Length
ACCRUAL_RATE	Data (Public)	Number	22
ACTIVE_FLG	Data (Public)	Character	1
ALC_BELOW_SFTY_FLG	Data (Public)	Character	1
ALIAS_NAME	Data (Public)	Varchar	100
ALOC_ASSETS_FLG	Data (Public)	Character	1
APPLY_EC_RULE_FLG	Data (Public)	Character	1
AUTO_ALLOCATE_FLG	Data (Public)	Character	1
AUTO_SUBST_FLG	Data (Public)	Character	1

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## System Columns

- Exist for all tables to store system data
- Are maintained by Siebel applications and tasks

The screenshot shows the Oracle SQL Developer interface. On the left is the Object Explorer pane, which lists various Siebel objects like Applet, Application, Business Component, etc. Under Table, there is a 'Column' node. On the right is the Column List pane, which has tabs for 'Tables' and 'Columns'. It shows a list of columns for a table named 'S\_PROD\_INT'. A yellow callout box points to the 'Type' column in the grid, specifically highlighting the 'System' entries for columns like CONFLICT\_ID, CREATED, CREATED\_BY, etc.

Name	Type	Physical Type	Length
CONFLICT_ID	System	Varchar	15
CREATED	System	UTC Date Time	7
CREATED_BY	System	Varchar	15
DB_LAST_UPD	System	UTC Date Time	7
DB_LAST_UPD_SRC	System	Varchar	50
DCKING_NUM	System	Number	22
LAST_UPD	System	UTC Date Time	7
LAST_UPD_BY	System	Varchar	15
MODIFICATION_NUM	System	Number	22
ROW_ID	System	Varchar	15

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14 of 28

## User Keys

- Are used to determine the uniqueness of records when entering, importing, or integrating data
- Are predefined and cannot be changed

Object Explorer

User Key Columns

Name	User Key Type
S_PROD_INT: Export Only	Export Only
S_PROD_INT_II	Integration Id
S_PROD_INT_U1	Traditional U1 Index

User Key Columns

Name	Column	Column Sequence
BU_ID		0
NAME		0
VENDR_OU_ID		0

Column Combination provides a unique value

All columns in user key may not be required

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15 of 28

### User Keys

Customers cannot modify user keys. Expert Services can assist customers in evaluating strategies to remap data in their implementations to make use of the current user key structure within their specific business requirements.

The information about the user keys for a table has been incorporated into data that support EIM and remote synchronization. In addition, there is a predefined index (see next slide) based on the Siebel-defined user key.

## Indexes

- Are a separate data structure that stores a data value for a column and a pointer to the corresponding row
  - ▶ Used to retrieve and sort data rapidly
- Are predefined by Siebel as a set of standard indexes

The screenshot shows the Oracle Siebel Object Explorer interface. On the left is the Object Explorer tree view under the 'Siebel Objects' category, with 'Table' expanded to show 'Index', 'Index Column', 'User Key', and 'User Key Column'. On the right are two windows: 'Index Column List' and 'Index Columns'.

**Index Column List:** Shows a table with columns 'Name' and 'Type'. It lists four entries: S\_PROD\_INT\_M8 (System), S\_PROD\_INT\_M9 (System), S\_PROD\_INT\_P1 (Primary Key), and S\_PROD\_INT\_U1 (User Key). A yellow callout points to S\_PROD\_INT\_P1 with the text '\_P index based on primary key'.

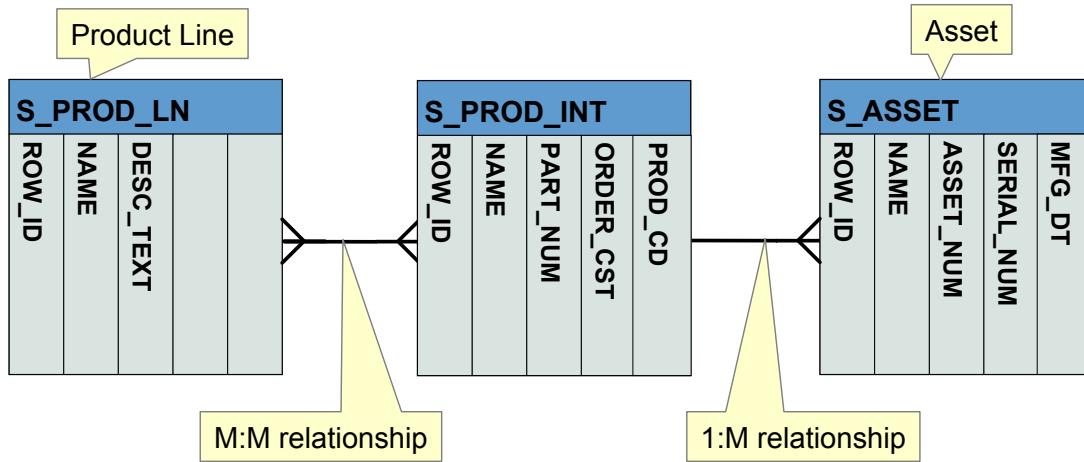
**Index Columns:** Shows two tables. The top table is titled 'Indexes' and lists the same four entries. The bottom table is titled 'Index Columns' and lists columns BU\_ID, CONFLICT\_ID, NAME, and VENDR\_OU\_ID. The 'Sequence' column is highlighted with a red border, and a yellow callout points to it with the text 'Sequence affects sort order'. The 'Sort Order' column shows values Asc for all rows.

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16 of 28

## Relationships Between Tables

- Siebel tables have many predefined relationships to support the as-delivered application
  - ▶ 1:M – one-to-many
  - ▶ M:M – many-to-many

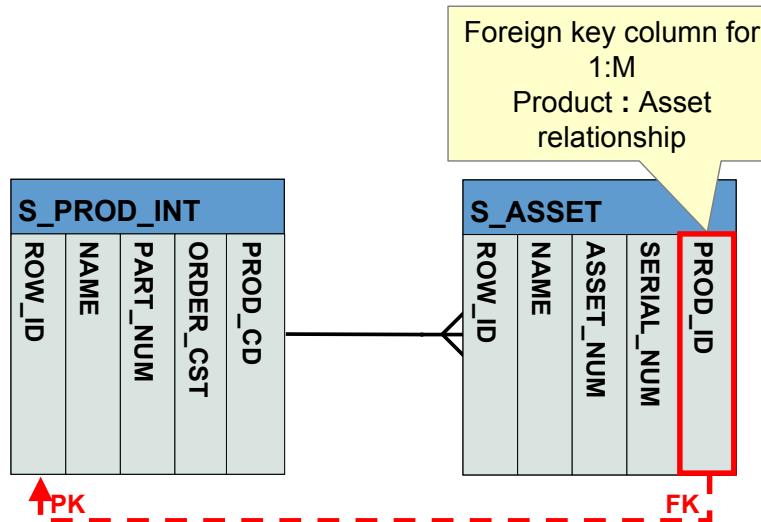


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17 of 28

## 1:M Relationships

- Are captured using foreign key (FK) table columns in the table on the many side of the relationship
- FK column on many side of the relationship references PK column on one side



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18 of 28

### Foreign Key Columns

Since a product could have many assets (product instances) associated with it, a foreign key column cannot be located in the **S\_PROD\_INT** table. It might then have to contain multiple **ROW\_ID**s, which would violate the basic rule of a single value for a column.

## Foreign Key Table Columns

- Are columns in a table that refer to the primary key column of a related (parent) table
  - ▶ Many are named with suffix \_ID
- Are maintained by Siebel applications and tasks to ensure referential integrity and should never be updated directly via SQL

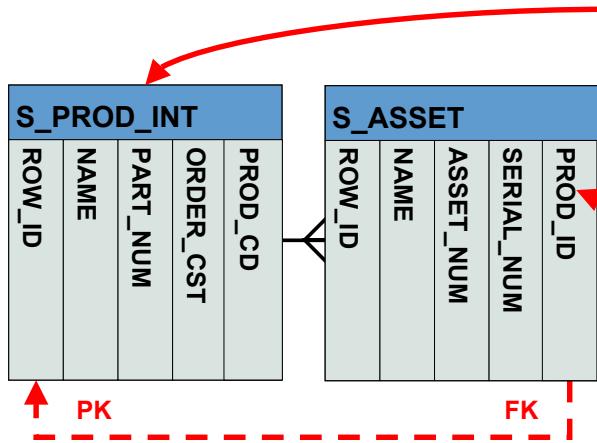


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## Finding Foreign Keys for 1:M Relationships

- Inspect the Foreign Key Table property in a Column object definition to determine the column that serves as the FK



The screenshot shows the Oracle Siebel Column Properties dialog. The top pane displays the **Columns** list with **S\_ASSET** selected. The bottom pane shows the properties for the **PROD\_ID** column, which is identified as the **Foreign Key Table** for the **S\_PROD\_INT** table. A yellow callout box labeled **FK column** points to the **PROD\_ID** column in the list. Another yellow callout box labeled **Parent table** points to the **S\_ASSET** table in the list.

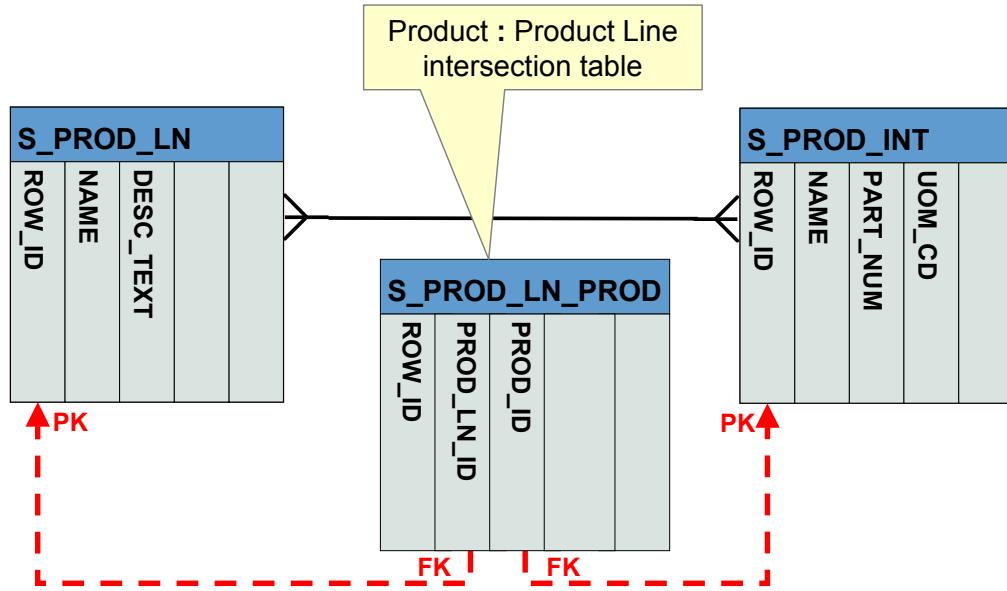
Name	Foreign Key Table
PAR_ASSET_ID	<a href="#">S_ASSET</a>
PER_ADDR_ID	<a href="#">S_ADDR_PER</a>
PORT_VALID_PROD_ID	<a href="#">S_PROD_ITEM</a>
<b>PROD_ID</b>	<a href="#">S_PROD_INT</a>
PROD_INV_ID	<a href="#">S_PROD_INV</a>
PROD_IND_WRNTY_FLG	

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20 of 28

## M:M Relationships

- Are captured using foreign key columns in a third table called the intersection table

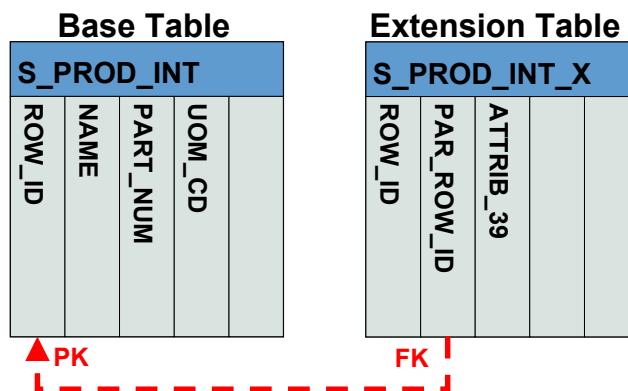


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21 of 28

## 1:1 Extension Table

- Is a special table that has a 1:1 relationship with a base table
  - ▶ Foreign key for the relationship:
    - Is located in the extension table
    - Is named PAR\_ROW\_ID
- Provides additional columns for business components referencing the base table
  - ▶ A base and extension table can be considered as a single logical table



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22 of 28

### **ROW\_ID**

The ROW\_ID for a row in a 1:1 extension table is, by convention, the same as that of the related row in the base table, and is an exception to the general rule that ROW\_IDs are unique across all tables.

### **Rows in Extension Tables**

A row in an extension table is created only if there is data to store in one of its columns. For example, a new product record that does not have a value for any fields referencing the extension table would create a row in the base table, but not in the extension table.

## Standard 1:1 Extension Tables

- Prebuilt for many major tables
  - ▶ Have the name of the base table with suffix \_X
- Contain 40-plus generic columns of varying types
  - ▶ Store data for new business component fields that are in addition to those mapped to the base table

**Tables**

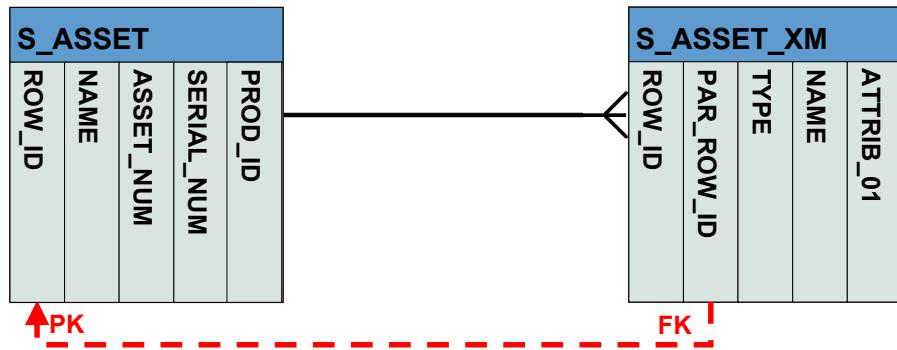
Name	Type	Comments
S_OPTY_PROD_X	Extension	(OBSOLETE for 7.0). Opportunity Product 1:1 Extension. Siebel Extension Table for Opportu
S_OPTY_STG_X	Extension	Opportunity Sales Stage 1:1 Extension. Siebel Extension Table for Opportunity Sales Cycle his
S_OPTY_X	Extension	Opportunity 1:1 Extension. Siebel Extension Table for Opportunities.
S_ORDER_ITEM_X	Extension	Order Item 1:1 Extension. Siebel Extension Table for Order Items.
S_ORDER_X	Extension	Order 1:1 Extension. Siebel Extension Table for Orders.
S_ORG_EXT_X	Extension	S_ORG_EXT 1:1 Extension table. Siebel Extension table for custom attributes intrinsic to any or
S_ORG_GROUP_X	Extension	Household 1:1 Extension. Siebel Extension table for Households.
S_ORG_INT_X	Extension	S_ORG_EXT 1:1 Extension. Siebel Extension table for custom attributes of Internal Divisions de
S_PART_RPR_X	Extension	Repair Part 1:1 Extension. Siebel Extension Table for Repair Parts.
S_PRI_LST_ITEM_X	Extension	Price List Item 1:1 Extension. Siebel Extension Table for Price List Items.
S_PRI_LST_X	Extension	Price List 1:1 Extension. Siebel Extension Table for Price Lists.
S_PROD_DEFECT_X	Extension	Product Defect 1:1 Extension. Siebel Extension table for Product Defect.
S_PROD_EXT_X	Extension	External Product 1:1 Extension. Siebel Extension Table for External or Competitor Products.
S_PROD_INT_X	Extension	Product Internal 1:1 Extension. Siebel Extension Table for Internal Products or Products sold i
S_PROD_LN_X	Extension	Product Line 1:1 Extension. Siebel Extension Table for Product Lines.
S_PROD_SPEC_X	Extension	Product Specification 1:1 Extension. Siebel Extension Table for Product Specifications.
S_PROJITEM_X	Extension	Project Items 1:1 Extension. Siebel Extension Table for Project Items.

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23 of 28

## 1:M Extension Table

- Is a special table for storing child data related to an existing parent table
- Allows you to track entities that do not exist in the as-delivered Siebel applications



## Standard 1:M Extension Tables

- Are prebuilt for many tables
- Have the name of the main table appended with \_XM

Name	Type	Physical Type	Length
TYPE	Data (Public)	Varchar	30
ROW_ID	System	Varchar	15
PAR_ROW_ID	System	Varchar	15
NAME	Data (Public)	Varchar	100
MODIFICATION_NUM	System	Number	22
LAST_UPD_BY	System	Varchar	15
LAST_UPD	System	UTC Date Time	7
DB_LAST_UPD_SRC	System	Varchar	50
DB_LAST_UPD	System	UTC Date Time	7
CREATED_BY	System	Varchar	15
CREATED	System	UTC Date Time	7
CONFLICT_ID	System	Varchar	15
ATTRIB_47	Data (Public)	Varchar	255
ATTRIB_46	Data (Public)	Varchar	100
ATTRIB_45	Data (Public)	Varchar	100

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25 of 28



## Module Highlights

- Siebel Data Model defines how data is stored in a third-party relational database
- A primary key (PK) is a column that uniquely identifies each table row
- ROW\_ID is a column in every table
  - ▶ Contains a Siebel application-generated unique identifier
- User keys specify the columns used to determine uniqueness of records when entering, importing, or integrating data
- Foreign Key Table columns are columns in a table that refer to the PK column of a related table
- 1:1, 1:M, and M:M relationships are predefined within the model



## Lab

- In the lab you will:
  - ▶ Examine tables, columns, indexes, and user keys that make up the Siebel Data Model
  - ▶ Determine the form of relationships between tables in the Siebel Data Model

