Oracle® Collaboration Suite

Concepts

Release 2 (9.0.4)

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Oracle Collaboration Suite Concepts, Release 2 (9.0.4)

Part No. B15605-01

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Preface

This preface contains the following topics:

- Intended Audience
- Documentation Accessibility
- Structure
- Related Documents
- Conventions

Intended Audience

This manual is intended for administrators who would like a conceptual overview of Oracle Collaboration Suite. This document should be read before *Oracle Collaboration Suite Deployment* and before *Oracle Collaboration Suite Pre-installation Requirements*.

Documentation Accessibility

Our goal is to make Oracle products, services, and supporting documentation accessible, with good usability, to the disabled community. To that end, our documentation includes features that make information available to users of assistive technology. This documentation is available in HTML format, and contains markup to facilitate access by the disabled community. Standards will continue to evolve over time, and Oracle is actively engaged with other market-leading technology vendors to address technical obstacles so that our documentation can be accessible to all of our customers. For additional information, visit the Oracle Accessibility Program Web site at

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This documentation may contain links to Web sites of other companies or organizations that Oracle does not own or control. Oracle neither evaluates nor makes any representations regarding the accessibility of these Web sites.

Structure

This manual contains nine chapters.

Oracle Collaboration Suite Overview

This chapter provides a conceptual overview of Oracle Collaboration Suite, as well as a description of Oracle Collaboration Suite's main benefits.

Oracle Collaboration Suite Architecture

This chapter provides a conceptual overview of Oracle Collaboration Suite architecture.

Oracle Calendar Concepts

This chapter provides a conceptual overview and features summary of Oracle Calendar.

Oracle Email Concepts

This chapter provides a conceptual overview and features summary of Oracle Email.

Oracle Files Concepts

This chapter provides a conceptual overview and features summary of Oracle Files.

Oracle Ultra Search Concepts

This chapter provides a conceptual overview and features summary of Oracle Ultra Search.

Oracle Voicemail & Fax Concepts

This chapter provides a conceptual overview and features summary of Oracle Voicemail & Fax.

Oracle Web Conferencing Concepts

This chapter provides a conceptual overview and features summary of Oracle Web Conferencing.

Oracle9iAS Wireless Concepts

This chapter provides a conceptual overview and features summary of Oracle9iAS Wireless.

Related Documents

For more information, see the following manuals in the Oracle Collaboration Suite documentation set:

- *Oracle Email Administrator's Guide*

- *Oracle Calendar Administrator's Guide*

- *Oracle Files Administrator's Guide*

- *Oracle Web Conferencing Administrator's Guide*

- *Oracle Voicemail & Fax Administrator's Guide*

- *Oracle Ultra Search Administrator's Guide*

- *Oracle9iAS Wireless Administrator's Guide*
- *Oracle Collaboration Suite Deployment*
- *Oracle Enterprise Manager Managing Oracle Collaboration Suite*

Conventions

The following conventions are also used in this manual:

Convention	Meaning
. . .	Vertical ellipsis points in an example mean that information not directly related to the example has been omitted.
. . .	Horizontal ellipsis points in statements or commands mean that parts of the statement or command not directly related to the example have been omitted
boldface text	Boldface type in text indicates a term defined in the text, the glossary, or in both locations.
< >	Angle brackets enclose user-supplied names.
[ ]	Brackets enclose optional clauses from which you can choose one or none.

1

Oracle Collaboration Suite Overview

Until recently, business managers implementing systems for departmental messaging and collaboration have been forced to choose between fragmented applications from separate vendors, or collaborative products that did not meet their scalability, reliability, manageability, and data security concerns. The problem of dealing with large and scattered bulks of information over heterogeneous systems has been addressed with the recent introduction of collaborative systems. However, none of these collaborative systems have been built on a relational database.

Oracle's Solution for Enterprise Collaboration

Oracle has met the need for a secure and reliable enterprise-wide collaborative solution with Oracle Collaboration Suite, an integrated suite of applications that enables users to exchange e-mail, receive voicemails and faxes, organize their appointments, share documents, search for information, and arrange and conduct online meetings. Users can access these services over the Web, by fax, by voice, or over wireless networks by using phones and PDAs.

In short, Oracle Collaboration Suite:

❑ Is the first and only collaboration system built on a relational database.

❑ Replaces fragmented collaboration solutions that do not interact with each other.

❑ Enables the exchange and sharing of everyday business data, such as e-mail, schedules, documents, telephone systems, and contact information.

❑ Accesses all collaborative data through desktop applications, the Web, PDAs, and mobile phones.

Built on Oracle9i Database and Oracle9i Application Server

Oracle Collaboration Suite uses Oracle Database to centralize and consolidate collaborative content, providing a secure, failure-tolerant, available and scalable infrastructure. Collaboration Suite provides a single application platform built on Oracle9*i* Application Server that integrates e-mail, voicemail, fax, calendar, files, search, and real-time collaboration services. Finally, with Oracle Collaboration Suite's interaction layer, employees get streamlined access through a common Web interface, standards-based desktop clients including Microsoft Outlook, wireless, fax and voice options.

Oracle Collaboration Suite Components

Oracle Collaboration Suite is composed of several applications working together to provide a seamless collaborative solution. For example, Oracle Calendar enables users to schedule and join Oracle Web conferences directly through their calendars, and faxes sent to Oracle Collaboration Suite users arrive directly in their e-mail inbox.

Oracle Collaboration Suite includes the following components:

- Oracle Email
- Oracle Calendar
- Oracle Files
- Oracle Web Conferencing
- Oracle Voicemail & Fax
- Oracle9iAS Wireless
- Oracle Ultra Search

Oracle Calendar

Oracle Calendar is the time management component of Oracle Collaboration Suite. Calendar combines group and resource scheduling functionality, along with a variety access methods, to give you up-to-date calendar information.

Calendar is also capable of free-time searches, multiple time zone support and UTF-8 encoding to support international deployments, e-mail and wireless alerts, multi-platform support and an extensible Authentication, Compression and Encryption (ACE) framework for enhanced security.

Related Documentation:

- *Oracle Calendar Administrator's Guide*
- *Oracle Calendar Reference Manual*

Oracle Email

Oracle Email is the Oracle Collaboration Suite open standards based solution for enterprise-wide e-mail, voice mail and faxes. Oracle Email enables users of Oracle Collaboration Suite to access messages with any standards-based mail client. Messages can be accessed using any client compliant with IMAP4 (Internet Message Access Protocol) or POP3 (Post Office Protocol), such as Netscape Messenger, Microsoft Outlook Express, or Eudora Pro Lite. Oracle Email provides directory services using the Light-Weight Directory Access Protocol (LDAP) standards-compliant Oracle Internet Directory.

Related Documentation for Oracle Email:

- *Oracle Email Administrator's Guide*
- *Oracle Email Anti-Spam Configuration*

Oracle Files

Oracle Files is designed as an enterprise file server replacement, with added content management features (for example, versioning) that enable users to collaborate more efficiently. All content is stored in an Oracle database. Oracle Files provides:

- Support for file-sharing and collaboration protocols

- A Web user interface designed for large-scale deployments

- Collaboration based on Workspaces

- Content management features like extensible metadata, versioning, and content-based searching

- Workflow integration for approval and routing

- User and administrator options for single file recovery

- Scalability, reliability, security, and platform independence

See the *Oracle Files Administrator's Guide* for more information about Oracle Files administration, configuration, and troubleshooting.

Oracle Ultra Search

Oracle Ultra Search crawls multiple Oracle repositories and creates indexes that can be searched quickly. Ultra Search crawls and indexes relational databases, HTML documents hosted on Web servers, Oracle9*i*AS Portal, hard drives, IMAP mail servers and more.

See the *Oracle Ultra Search User's Guide* for more information about Oracle Ultra Search system requirements, installation instructions, configuration and troubleshooting information.

Oracle Voicemail & Fax

Oracle Voicemail & Fax is the scalable voice mail and fax component of Oracle Collaboration Suite. Oracle Voicemail & Fax provides Oracle Collaboration Suite with centralized and secure message storage and retrieval for voicemail and faxes. It enhances the traditional voicemail system and fax capabilities with improved scalability, reliability, and accessibility features including e-mail access to voice and fax messages. In addition, it provides telephone processing, message delivery, browser based clients, and administration utilities.

Oracle Voicemail & Fax is designed to coexist with legacy PBX systems, allowing you to migrate to the next generation of unified communication while leveraging the Oracle Collaboration Suite data infrastructure.

See the *Oracle Voicemail & Fax Administrator's Guide* for more information about Oracle Voicemail & Fax's system requirements, installation instructions, frequently asked questions and troubleshooting information.

Oracle Web Conferencing

Oracle Web Conferencing is the real-time conferencing component of Oracle Collaboration Suite. Oracle Web Conferencing lets employees, customers, and partners to meet, interact and collaborate with each other online in real time. Oracle Web Conferencing features multiple ways to collaborate in conferences, including desktop sharing, whiteboarding, chatting, polling and cobrowsing Web sites. It also supports all types of meetings that include:

- Live help sessions

- Interactive meetings

- Web seminars

See the *Oracle Web Conferencing Administrator's Guide* or the *Oracle Web Conferencing Troubleshooting Guide* for more information on Oracle Web Conferencing.

Oracle9iAS Wireless

Oracle9*i*AS Wireless enables you to access your e-mail, voice mail, calendar, address book, tasks, files, corporate directories, and instant messaging from any device with wireless or voice access. You can use your mobile phone, telephone, or any other wireless device, from anywhere, to:

❑ Receive and answer your e-mail.

❑ Send documents to a co-worker.

❑ Look up the phone numbers of another employee in your corporate directory

In addition, you can be notified when:

❑ Documents are updated in your folder.

❑ Receive meeting reminders.

The Oracle9*i*AS Wireless functionality in Collaboration Suite is provided by the Oracle9*i*AS Wireless multimodal, which is a multichannel service delivery platform based on XML and J2EE standards.

See the *Oracle9iAS Wireless Administrator's Guide* for more information about Oracle Wireless system requirements, installation instructions, frequently asked questions and troubleshooting information.

Oracle Collaboration Suite Key Benefits

The following are some of the most prominent benefits of using Oracle Collaboration Suite for all your enterprise-wide communication:

❑ Flexible deployment options

❑ Development tools

❑ Synchronization tools

❑ Advanced Security

❑ Cross platform capability

❑ Interoperability with other vendors

Flexible deployment options

Oracle Collaboration Suite is a modular, three-tier collaboration solution. Although each layer of Oracle Collaboration Suite can be physically installed on the same machine, this deployment method would only meet the smallest enterprise's needs for security and availability. The architecture for larger enterprises typically features the distribution of the three tiers on different machines. This is the most efficient way to install Oracle Collaboration Suite since each tier has specific resource demands which can be deployed more efficiently on separate hardware. Oracle Collaboration Suite offers numerous deployment options that emphasize varying degrees of availability, scalability, security and scalability.

Related Documentation:

❑ *Oracle Collaboration Suite Deployment*

❑ *Oracle Collaboration Suite Pre-Installation Requirements*

❑ *Oracle Collaboration Suite Sizing and Performance Tuning*

❑ *Oracle Collaboration Suite High Availability*

Development tools

Oracle Collaboration Suite includes a robust set of developer kits, Web services and APIs. The various SDKs can be used to enhance the functionality of your existing business applications.

Related Documentation:

❑ *Oracle Calendar Application Developer's Guide*

❑ *Oracle Calendar SDK Java API Reference*

❑ *Oracle Calendar Web Services Java API Reference*

❑ *Oracle Email Application Developer's Guide*

❑ *Oracle Email Java API Reference*

Synchronization tools

Oracle Sync Server is also part of the Oracle Collaboration Suite product portfolio. Sync Server delivers remote synchronization of calendar and contact data with any SyncML-enabled device or application. Oracle Sync Server offers direct two-way synchronization with the Oracle Calendar server over any standard Hypertext Transfer Protocol (HTTP) connection, opening up the calendar infrastructure to any SyncML-compliant device or application with Internet access. The Oracle Sync Server architecture can also be extended to support third-party standards-based or proprietary infrastructures.

See the *Oracle Calendar Resource Kit* and the *Oracle Sync Server* online help for more information about Oracle Sync Server.

Advanced Security

Oracle Collaboration Suite is built on top of Oracle9*i*AS and Oracle9*i* Database, providing the same level of security associated with each of these Oracle products.

In addition, the architecture of Oracle Collaboration Suite enables your IT department to setup multiple security zones. Typically, this consists of an intranet, a de-militarized zone (DMZ), and networks external to the intranet and DMZ, including the Internet. For enhanced security, each zone is separated by firewalls configured to monitor each other. If one firewall fails, another takes over its duties.

See *Oracle Collaboration Suite SSL Configuration* and *Oracle Collaboration Suit Firewall and Load Balancer Architecture* for more information about SSL and firewalls as they relate to Oracle Collaboration Suite.

Cross platform capability

Oracle Collaboration Suite can be deployed on multiple platforms. The following operating systems are supported by Oracle Collaboration Suite:

❑ Linux

❑ Microsoft Windows

❑ HP-UX 11.0

❑ Solaris

❑ IBM AIX

❑ Compaq Tru64

Interoperability with other vendors

Although Oracle Collaboration Suite provides solutions for each collaborative need, it was also designed with interoperability in mind. Oracle Collaboration Suite can extend current collaboration systems or replace them completely. Components of Oracle Collaboration Suite can be installed incrementally in order to replace existing collaboration solutions over a longer time period, easing the transition to a next generation collaboration system.

See *Oracle Collaboration Suite Integration with Microsoft Active Directory* for an example of Oracle Collaboration Suite's interoperability with other vendors.

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Oracle Collaboration Suite Architecture

Oracle Collaboration Suite is composed of three layers, or tiers. Three-tier architecture has several unique advantages over a single computer installation, such as the ability to scale where the processing power is required, and to keep data-intensive jobs and processor-intensive jobs on separate machines that can be tuned appropriately.

Three-Tier Architecture

The three tiers of Oracle Collaboration Suite place very different demands on processors and storage devices and the deployment architecture of Oracle Collaboration Suite should reflect these demands. Oracle Collaboration Suite offers several deployment scenarios that enable you to emphasize security, availability, scalability and ease of management. These deployment options and recommendations are covered in more detail in *Oracle Collaboration Suite Deployment*.

Oracle Collaboration Suite architecture contains the following layers:

- ❑ Middle Tier
- ❑ Infrastructure Tier
- ❑ Information Storage Tier

Middle Tier

The Oracle Collaboration Suite middle tier consists of the following Oracle components: Oracle Calendar, Oracle Email, Oracle Files, Oracle Ultra Search, Oracle Voicemail & Fax, Oracle Web Conferencing and Oracle 9*i*AS Wireless.

Infrastructure Tier

The infrastructure tier is built on Oracle9*i* Application Server. It consists of a common set of services, such as security, directory, metadata, management, and portal services. These services are used by Oracle Collaboration Suite applications.

Information Storage Tier

The information storage tier is based on Oracle9*i* Database. It consists of the Oracle Files and Oracle Email database(s).

3

Oracle Calendar Concepts

Oracle Calendar is the time management and resource scheduling component of Oracle Collaboration Suite. Oracle Calendar connects directly to the calendar server to access up-to-the-minute scheduling information for all Oracle Calendar users and resources. Calendar's real-time technology ensures that all connected users are able to check each other's availability with complete accuracy, since all the calendar data is stored centrally. This means there are no lags, no message queues, and no data replication for any calendar related data. Oracle Calendar also features e-mail and wireless alerts, multi-platform support, two desktop clients, a Web client, synchronization tools and a framework for enhanced security.

Oracle Calendar Features

The following sections describe the key features of Oracle Calendar:

- Client Selection

- Access Rights Management

- Synchronization

- Web Conferencing Integration

- Development Tools

- Remote Administration

Client Selection

Oracle Calendar offers three clients for communicating with the Calendar server. Although each client offers the same core functionality, each has unique advantages. Since all calendar information is stored centrally, you can install and use all three clients interchangeably. The following clients are available:

- Desktop Client

- Oracle Connector for Outlook

- Web Client

Desktop Client

The desktop client provides the most full-featured access to your calendar data, with personal information management functionality and group and resource scheduling capabilities. With support for the latest Windows and Macintosh platforms, as well as Linux and Solaris, the Oracle Calendar desktop client fits into any multi-OS

environment enabling users on different operating systems to schedule with each other seamlessly.

Oracle Connector for Outlook

Oracle Connector for Outlook extends the functionality of Microsoft Outlook by providing Oracle Collaboration Suite users with a unified environment for e-mail, voicemail, fax, web conferencing and real-time calendaring. As a MAPI service provider, Oracle Connector for Outlook communicates directly with the Calendar and Email servers.

Web Client

The Web client provides all the time management tools you need to manage your time in an application you can access from anywhere using the Internet. You can use the Web client's intuitive interface to schedule meetings with other users, check for conflicts, book resources, create notes and manage tasks. Agendas can also be published for people without a calendar account, offering added functionality such as sending a schedule to a partner or publishing resource availability for all employees.

Access Rights Management

You can control how much of your agenda can be accessed by other users. For example, you can restrict access rights to limit your co-workers to viewing only your free/busy time, while at the same time, you can grant access rights to specific users to view all your agenda entries marked as Normal and Personal. You do not have to grant access rights on a per user basis.

Synchronization

Oracle Calendar provides two ways to synchronize your calendar and contact data. The first is Oracle Calendar Sync, a desktop-to-cradle solution that enables synchronization between the Oracle Calendar desktop client and Palm and Pocket PC devices. The second synchronization option is Oracle Sync Server, a solution that employs the SyncML protocol to synchronize application data such as calendar and contacts over the Internet.

Web Conferencing Integration

When integrated with real-time online collaboration services, Oracle Calendar users can schedule and join Web conferences directly through their Calendars.

Development Tools

Oracle Calendar's standards-based developer tools include a Web Services Toolkit that provides XML and SOAP-based mechanisms to allow access and the transfer of calendaring data to other applications. The Calendar SDK uses the iCalendar standard for a data representation that facilitates data exchange between calendar systems.

Remote Administration

The Oracle Administrator can be used to remotely administer the calendar server. Using this tool, you can:

❑ Start or stop a calendar server.

❑ Start or stop a node located on a server.

❑ Check the status of a remote calendar server.

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Oracle Email Concepts

Oracle Email is a reliable, scalable, and secure messaging system that reduces administration, hardware, and software costs by providing a consolidated mail store.

Oracle Email uses the Oracle9*i* database as a single message store for e-mail, taking advantage of the Oracle core competencies in providing access to, storing, and managing all types of information. Using the highly scalable and reliable Oracle9*i* message store as a foundation, Oracle Email provides message delivery, standards-based client access, browser-based clients, and administration utilities.

Oracle EmailFeatures

Oracle Email is designed to grow to almost any size while maintaining its performance and ease of administration. The Oracle Email system can be customized based on how many messages need to be stored, how many users access the system under peak loads, and how many messages are sent and received over a period of time. The Oracle Email internet computing architecture enables customers to support thousands of users on a single system, if necessary. Customers have the option of creating a two-tier system with a single host supporting a few thousand users, or a three-tier system with protocol access servers separate from the message database supporting many thousands of users. This architecture enables customers to add hardware at any tier, expanding the system to support a virtually unlimited number of users.

The following sections describe the key features of Oracle Calendar:

- ❑ Message Store
- ❑ Open Standards-Based Messaging
- ❑ Oracle Webmail
- ❑ Extended Server-side Filters
- ❑ Integration With Other Applications
- ❑ Enhanced Administration Features

Message Store

Oracle Email stores all messages in the Oracle9*i* database. Oracle Email users can access and manage all messages from the interface of their choice, including a Web browser, phone, PDA, and fax machine. The Oracle9*i* database enables Oracle Email to offer data availability, data integrity, low recovery time, and fault-tolerance. Oracle Email takes advantage of Oracle9*i* database multithreading, parallel processing, high availability support, and high performance.

Open Standards-Based Messaging

Oracle Email enables users to access messages with the standards-based messaging client of their choice. Messages can be accessed using any client compliant with IMAP4 (Internet Message Access Protocol) or POP3 (Post Office Protocol), such as Netscape Messenger, Microsoft Outlook Express, or Eudora Pro Lite. Oracle Email provides directory services using the LDAP (Light-Weight Directory Access Protocol) standard-compliant Oracle Internet Directory.

Oracle Webmail

Oracle Webmail provides Internet access to Oracle Email through a standard Web browser. Browser-based clients provide all of the advantages of internet computing: increased reliability because no dedicated client is needed; decreased support and administration costs due to the system being maintained in a professional data center; and increased message access because there are no local message storage requirements. Users can access and manage all aspects of their Oracle Email account from Oracle Webmail.

Extended Server-side Filters

Oracle Email provides a wide range of server-side filters that enable certain actions to be taken at various events. A variety of built-in actions, such as move, delete, and forward can be used to quickly assemble complex filtering logic with optimized e-mail operations. Filters can be defined to cover a wide range of events, such as delivery, copy, delete, and relay, enabling fine-grained control over a message's lifespan. In addition to built-in actions, server-side filters include a PL/SQL Application Programming Interface (API), enabling customers to write their own customized actions and conditions.

Integration With Other Applications

PL/SQL and Java programmers can create custom applications to integrate Oracle Email with other applications. Oracle Email APIs enable applications to directly manipulate stored messages as well as create outgoing messages that follow the MIME standard. Combined with server-side rules, large numbers of messages can be processed and managed by applications integrated with Oracle Email.

Enhanced Administration Features

Oracle Email simplifies administration and management by integrating with Oracle Enterprise Manager, enabling consolidated, Web-based management of the total Oracle environment as well as integration into existing system monitoring infrastructures. Oracle Email also supports multiple domains with delegated administration on the same system, enabling hosting.

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Oracle Files Concepts

Oracle Files is the enterprise file server for Oracle Collaboration Suite. Oracle Files provides numerous content management features that enable you to collaborate more productively with your team. All Oracle Files content is stored securely in an Oracle database.

No additional client software is required to use Oracle Files, unless you choose to run Oracle FileSync, the Oracle Files synchronization tool. Oracle FileSync must be installed separately on each client in order to be used.

Oracle Files Features

The following sections describe the key features of Oracle Files:

- Three Levels of Administration
- File Management
- Workspaces
- Quota
- Search
- Categories
- Versioning
- Review Process
- Edit-in-Place
- File Locking
- File Synchronization
- Multiple Protocol Support

Three Levels of Administration

There are three different administrative roles in Oracle Files:

- The System Administrator is responsible for managing the Oracle Files domain by starting and stopping Oracle Files processes, such the domain controller, nodes, services, and servers, as well as tuning the system to ensure reliability and performance.
- The Site Administrator is responsible for creating, modifying, and deleting Subscribers, as well as registering custom workflows.

❏ The Subscriber Administrator is responsible for managing quotas, specifying Subscriber settings, administering users, restoring files from the Archive, and administering categories.

File Management

Each user has a My Public Files folder for storing files that are viewable by all Subscriber users. Each user also has a My Private Files folder for storing files that cannot be accessed by other users.

Collaborative file management in Oracle Files allows users to:

❏ Send links to documents instead of attaching documents to e-mails.

❏ Work collaboratively on one copy of a document, so that changes are immediately available, and users do not overwrite each other's changes.

❏ Control access to content through Workspace membership.

Workspaces

A Workspace is where a selected group of Oracle Files users store content for collaboration. Only the members of a Workspace can view and edit its contents. Users can be assigned three levels of access to a Workspace: Workspace Administrator, Participant, or Viewer.

Quota

Quota is the measurement of your storage usage in Oracle Files. There are two types of quota in Oracle Files: Workspace quota and Public and Private Files quota.

Each Workspace is allocated a quota by the Workspace Administrator. The contents of each Workspace, including its Public folder and Trash folder, count against its allocated quota. When a Workspace's quota is exceeded, Workspace members cannot store additional content in the Workspace. The Workspace's administrators can, however, request that the Subscriber Administrator increase the Workspace's quota.

The Subscriber Administrator allocates a storage quota to each user for files stored in their Public and Private folders. The contents of each folder, including the Trash folder, count against allocated quota for that user. Exceeding allocated quota prevents the user from storing additional content in either folder.

Search

You can conduct simple or advanced searches in Oracle Files. Advanced searching lets you add, refine, and combine search criteria.

You can also conduct a Category Search to find files based on their associated categories and the attribute values of those categories.

Categories

By associating categories or custom metadata with files or folders and modifying the attributes of a category, you can organize and classify your information more efficiently. You can also search for files by category and by a category's attributes. The Oracle Files Subscriber Administrator creates these categories.

Versioning

You can retain a history of file modifications by creating and saving one or more versions of a file. A versioned file's Working Copy is editable, while its Saved Versions are uneditable snapshots of the file.

Review Process

Oracle Workflow is the backbone of the review process in Oracle Files. Users can submit files for review to a specified set of reviewers. These reviewers fall into two categories: Approvers, who can approve or reject the file, or Reviewers, who have read-only access to the file.

Edit-in-Place

Using Microsoft Web Folders, users can open and edit an Oracle Files file and save changes directly back to Oracle Files. When a user opens a file from Microsoft Web Folders to edit it in Microsoft Office, the file is automatically locked in Oracle Files.

File Locking

When you lock a file, you obtain exclusive access to that file. Other Oracle Files users are unable to edit the content and properties of your locked file. You can lock a file manually, and files are locked automatically when they are edited through a client application, or when they are part of a Review Process. If a versioned file is locked, its version history is also locked.

File Synchronization

Oracle FileSync synchronizes all file changes between a local computer and Oracle Files, ensuring that the contents of selected local folders and remote folders match.

See the Oracle FileSync online help for detailed information about synchronizing local and remote folders.

Multiple Protocol Support

Oracle Files supports a wide range of protocols through its various protocol server implementations, including Web Folders, HTTP, CIFS, FTP, AFP, and NFS.

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Oracle Ultra Search Concepts

Oracle Collaboration Suite Search consists of two components that work together to find what you want within an Oracle Collaboration Suite installation and on your corporate networks: Ultra Search and Federated Search.

Ultra Search is a Web based search engine solution that searches across multiple repositories, including relational databases, HTML hosted on Web servers, Oracle9*i*AS Portal, files on disk and IMAP mail servers. Ultra Search uses a crawler to index the information found in these repositories and then stores the findings in indexes that are stored within a Oracle database. The indexed documents are not moved or modified by the crawling process. Ultra Search also provides APIs for building content management solutions.

Federated Search accepts search terms from end users through the Collaboration Suite Search page and displays an integrated list of search results from Mail, Files and Web servers crawled by Ultra Search.

Oracle Ultra Search Components

The following sections describe the main components of Oracle Ultra Search:

- ❑ Ultra Search Crawler
- ❑ Ultra Search Back end
- ❑ Ultra Search Middle Tier

Ultra Search Crawler

Ultra Search's crawler indexes the content of all Oracle Collaboration Suite repositories. This information is used to build an index that is located within a designated Oracle Database. Each time a new e-mail is received or a new file is uploaded, Oracle Email and Files build their own indexes and update it automatically. As a result, no crawling is required for Oracle Collaboration Suite applications and search results are always current.

Ultra Search Back end

The Ultra Search server component, or back end, consists of an Ultra Search repository and Oracle Text. Oracle Text provides the text indexing and search capabilities required to index and query data retrieved from your data sources. The Ultra Search back end is not visible to Oracle Collaboration Suite end users.

Ultra Search Middle Tier

The Oracle Ultra Search middle tier components are Web applications. The middle tier includes the Oracle Ultra Search administration tool, the APIs, and the query applications.

The Ultra Search administration tool is a J2EE-compliant Web application used to manage Ultra Search instances, and you can access it from your intranet using any browser. The administration tool is independent from the Ultra Search query application so the administration tool and query application can be hosted on different computers to enhance security and scalability.

Ultra Search enables you to create custom search applications that work with any type of information by means of a set of query APIs. These APIs can be used from Web applications to retrieve and display query results. Query APIs are offered for Java and are compatible with many Web application servers that support Java Server Pages (JSP).

Ultra Search also includes highly functional query applications to query and display search results. The query applications are based on JSP and work with any JSP1.1 compliant engine.

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Oracle Voicemail & Fax Concepts

Oracle Voicemail & Fax is a centralized message and retrieval store for voicemail and faxes, as well as telephone processing, message delivery, browser-based clients, and administration utilities.

Oracle Voicemail provides access to voice mails through multiple channels including telephones, standards based e-mail clients (either IMAP4 or POP3), and the Web. Since Voicemail & Fax stores messages in industry standard formats (.wav for voicemail and .tif for fax), it requires no special player to view. This provides greater flexibility allowing users to access messages from any computer system, and allows them to forward these messages to anyone with e-mail access. Additionally, you have a single Inbox for all your e-mail, voice mail and fax messages.

Oracle Voicemail & Fax Features

The following sections describe the key features of Oracle Voicemail & Fax:

- ❑ Message Store
- ❑ Industry Standards
- ❑ Fax Capabilities
- ❑ Voice Interface
- ❑ Wireless Notification
- ❑ Centralized Management
- ❑ Graphical User Interface Client Access
- ❑ Development Tools

Message Store

Oracle Voicemail & Fax leverages the Oracle Email message store, the Oracle Collaboration Suite Database, for storage of voice mail and fax messages. The Oracle Collaboration Suite Database provides the storage and common access methods for e-mail, voice mail, and fax messages in standard MIME format (that is VPiM for voice mail and fax messages) within the same repository. Using the Oracle Collaboration Suite Database as the base, all messages (including voice mails) are available through standard IMAP4 or POP3 e-mail clients.

Industry Standards

Oracle Voicemail & Fax telephone applications are built on the Enterprise Computer Telephony Forum (ECTF) standards. These standards define the infrastructure needed

to build and support platform-independent CT applications and enable Oracle Voicemail & Fax applications to easily integrate with a variety of enterprise and carrier class switches.

Fax Capabilities

Oracle Voicemail & Fax provides you with inbound fax capabilities. Faxes sent to an Oracle Collaboration Suite user's phone number are delivered directly into the user's inbox. Faxes are stored as Multi-Purpose Internet Mail Extensions (MIME) compliant messages that can be viewed, printed or forwarded to any e-mail address using standards-based desktop or Web clients.

Voice Interface

Oracle Voicemail & Fax provides a basic dual tone multi-frequency (DTMF) voicemail interface and the ability to change user preferences through the telephone interface. Since Oracle Voicemail & Fax uses a single message store, actions taken on a message or changes made to account preferences through the voice channel are visible through all channels.

Wireless Notification

In conjunction with Oracle9*i*AS Wireless and Oracle Email, Oracle Voicemail & Fax can send e-mail notifications to other e-mail accounts and your wireless device enabled for e-mail. Oracle Collaboration Suite also includes direct one-way and two-way communication with a number of popular SMS systems and pager networks.

Centralized Management

Oracle Voicemail & Fax administration is integrated into Oracle Enterprise Manager, allowing consolidated management of the entire Oracle environment, providing support for integration into systems monitoring infrastructure. Oracle Voicemail & Fax supports multiple domains in the same system and allows for central or distributed administration in a hosted environment.

Graphical User Interface Client Access

Oracle Voicemail & Fax provides access to voicemail through multiple channels including the telephone, IMAP4 or POP3 standards-based clients, and the Web. This allows users to access messages from any computer system and to forward these messages to anyone with access to e-mail.

Development Tools

A comprehensive set of PL/SQL and Java APIs are provided to integrate Oracle Email and Voicemail with other core eBusiness infrastructures. These APIs provide the ability to read, retrieve, copy and move messages. A complete set of server side rules and filters allow end users and administrators to execute actions on voicemail messages with defined characteristics (for example, notify me when a voice mail from my spouse has been received).

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Oracle Web Conferencing Concepts

Oracle Web Conferencing is the real-time conferencing component of Oracle Collaboration Suite. Oracle Web Conferencing enables users of Oracle Collaboration Suite to hold interactive conferences, Web seminars, one-on-one customer support sessions as well as record and play back conferences. In a conference, users can share Windows-based applications, co-browse the Internet/intranet, write on a shared whiteboard, present documents, chat, conduct polls, and stream voice to others.

Oracle Web Conferencing Features

The following sections describe the key features of Oracle Web Conferencing:

- Desktop Sharing
- Document Presentation
- Whiteboard
- Voice Streaming
- Polling
- Chat
- Security
- Designated and Shared Control
- Recording

Desktop Sharing

Desktop Sharing enables you to share applications from a Windows-based computer with other attendees in real time. You can share any application (including your Web browser), any region of your screen, or your entire desktop.

Document Presentation

Oracle Web Conferencing allows you to select and display documents from a personal materials repository for others to view and edit. The following formats are supported: Microsoft Word, Excel, PowerPoint, HTML, ASCII text, and images (.gif and .jpg).

Whiteboard

The whiteboard feature of Web Conferencing gives you mark-up and drawing tools as an aid when making presentations.

Voice Streaming

Web Conferencing enables live, listen-only streaming of voice from any telephone or teleconference system through the Oracle Web Conferencing console.

Polling

The polling feature in Web Conferencing allows conference hosts to poll the participants of a Web conference. These poll results can be published to attendees in real time.

Chat

Web Conferencing allows live chatting with all attendees, a group of attendees, or just with the conference host. You can create predefined messages to send during a chat session.

Security

The Web Conferencing console communicates with the Real-Time Collaboration (RTC) server using a proprietary communication protocol. These messages can be encrypted using SSL for greater privacy. The default option is a non-SSL conference between the consoles and server.

Designated and Shared Control

The host of a conference can share control of the conference with one or more attendees (while still retaining ultimate control). Also, the Oracle Collaboration Suite user who schedules the conference can designate another person to be the acting host, with all appropriate host privileges.

Recording

Oracle Web Conferencing allows you to save and play back any type of conference. Recordings are stored in a single file and are voice synchronized with any on-screen data collaboration that occurred during the conference.

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Oracle9iAS Wireless Concepts

Oracle9*i*AS Wireless provides users of Oracle Collaboration Suite with wireless access to e-mails, voicemails, calendar data, address books, tasks, files, corporate directories, and instant messaging from any device with wireless or voice access. With Oracle9*i*AS Wireless, you can use your cell phone or other wireless device to receive and answer e-mail, send a white paper to a colleague or look up the phone numbers of other employees in your corporate directory, from anywhere.

Oracle9iAS Wireless Features

The following sections describe the key features of Oracle9*i*AS Wireless:

- Instant Access from SMS or Any IM Client
- Voice Access
- Calendar and Address Book Access
- Access to Files
- Presence Management

Instant Access from SMS or Any IM Client

Oracle9*i*AS Wireless enables you to access Oracle Collaboration Suite through Short Message Service (SMS) messages or any Instant Messenger (IM) client. You can send simple SMS commands to retrieve your appointments for the day, to modify or cancel a meeting, to look up employee information in corporate directory or personal address book, or to browse a files catalog to select a file to fax or send by e-mail. Similarly, any IM client can be used to access all your collaboration information by adding Oracle Collaboration Suite as a buddy to your contact list.

Voice Access

Oracle9*i*AS Wireless enables you to retrieve and reply to e-mail, manage appointments, call a contact, or receive notifications regarding important messages or meetings, through any phone. You can access Oracle Collaboration Suite components such as Oracle Email and Oracle Calendar by calling a gateway from a wired or wireless phone and interacting with a voice-based interface. The Oracle Collaboration Suite voice-enabled applications respond to both voice and touchtone commands, and run on any Oracle supported VoiceXML gateway with speaker-independent speech recognition.

Calendar and Address Book Access

Using wireless technology, Oracle Collaboration Suite enables you to manage your appointments and tasks from any mobile device. For example, you can:

❑ Play the summary of new or modified appointment using voice access.

❑ Manage your address books and contacts.

❑ Add contacts into your address book based on their e-mail messages.

Access to Files

Oracle9*i*As Wireless enables you to access Oracle Files from any device, including voice, from anywhere. For example, you can:

❑ Integrate with Oracle Email to access Oracle Files attachments.

❑ Enable document printing by fax (using third-party fax servers).

❑ Remotely select an attachment and send it by e-mail to another mobile user.

Presence Management

Presence management is the method by which you define the best current method for being contacted at a given moment based on your availability and personal preferences. Oracle Collaboration Suite allows you to create a profile that defines where you are during the day and how you would prefer to be notified.