Creating Collaborative Communities Within Your Portal

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INTRODUCTION

Enterprises of all sizes and in all industries are faced with the ever-present problem of how to extend communication and information to employees, partners, suppliers, and customers, while still maintaining security, control, source integrity, and budget considerations.

When organizations of all sizes need to improve sharing and accessing information, boost productivity, control costs and bring together geographically dispersed teams, they collectively turn to a portal. Why? They want to combine collaboration and enterprise applications into a customized and integrated on-demand environment that users can access anytime, anywhere. They want one common enterprise framework that provides users with a working environment that brings together the applications and information they need to do their jobs more effectively.

Oracle Portal 10g and Oracle Collaboration Suite 10g provides the framework to organize information, readily access that information, manage documents, and enable efficient collaboration - all delivered in a familiar, single interface, browser-based environment.

CUSTOMER ISSUES

Enterprises of all sizes and in all industries are faced with the ever-present problem of how to extend communication and information to employees, partners, suppliers, and customers, while still maintaining control, source integrity, and budget considerations. Examples of these difficulties include:

- Poor integration among important information sources within the enterprise, such as email, enterprise applications, document stores, Web sites, and so forth, makes it difficult for users to navigate to, search for, and ultimately find the information they seek.
- Extending collaboration to multiple user communities requires separate environments to be built and maintained.
- Limitations in the underlying architecture and security mechanisms make it difficult or impossible to use a common content repository.
- Very limited or overly complex solutions for collaboration and document sharing make it difficult for workers to share information.
- Management of site taxonomy, security, and metadata becomes more time consuming as the size and complexity of the site grows.

To address several of these issues, enterprises are turning to corporate portal technology and building solutions that leverage the application framework that many portal products provide. But in many cases, a portal framework alone is not enough. Built-in capabilities for managing portal content are needed to simplify
and integrate the publishing experience, and at the same time, minimize integration, development, and administration costs.

**THE PORTAL SOLUTION**

Portals bring together the applications and information that users need to do their jobs more effectively. Since managing business documents and other content is an important part of most jobs, it makes sense that collaboration features should be part of the portal framework.

By integrating collaboration applications into Oracle Portal 10g, users can create, maintain, publish, and search information without having to leave the portal to access an external application. This dynamic exchange of information is promoted through document sharing, collaboration, and process automation features. The quality of user interaction is improved by offering one common interface to access everything.

You can maintain and access content directly in the context of enterprise applications that are integrated into the portal. Portal features like single sign-on, personalization, search, mobile device support, subscriptions, notifications, and globalization make collaboration easier to access. And many of the management and performance features offered by the portal framework are also required in a collaboration system - features like user provisioning and access control, caching, and usage monitoring.

Oracle Portal 10g's open framework makes it easy to integrate other collaborative technologies that are already managed in external systems. Oracle Portal 10g provides pre-built collaboration portlets, integration with Oracle Collaboration Suite 10g, Portal Integration Solutions, tools for building declarative portlets, and APIs to integrate your own collaboration applications.

**PRE-BUILT COLLABORATION PORTLETS**

Oracle provides pre-built collaboration portlets that enable portal administrators and page designers to send and receive information from the portal user population. This section highlights a few of the portlets available from Oracle Portal 10g.

**Survey Portlet**

The Survey portlets contain tools for building and administering surveys, polls, and tests. The following portlets are included:

- **Survey Builder**, for creating, editing, and copying questions; scoring text (essay) responses; and purging responses from a survey, poll, or test
- **Survey Form**, for delivering the survey, poll, or test to your users
• Survey Chart, for viewing cumulative results in a bar-chart format
• Survey Report, for viewing cumulative results in a report format

Survey Chart Summary

**Where's the discussion on the Poll portlet? The title of this section is “Survey and Poll Portlet”.**

**News Portlet**
The company News portlet enables users with or without HTML skills to easily share the latest community news on the portal. Keep your enterprise portal up to date on deadlines, events, press releases and other news, and even provide a link to the full article when necessary. Add the News portlet to your enterprise portal's home page to make sure it's the first thing users see when logging into your enterprise portal.

**INTEGRATION WITH ORACLE COLLABORATION SUITE 10G**
Oracle Collaboration Suite 10g centralizes and consolidates all collaborative content in a common datastore, providing the industry's most secure, failure-tolerant, available and scalable infrastructure. Your organization can finally deploy a single product that integrates email, voicemail and fax, calendar, files, search, and real-time collaboration services using Oracle Application Server infrastructure components, such as the Oracle Portal 10g, Oracle Workflow, and Oracle Internet Directory.

A single platform for all enterprise collaboration means avoiding costly integration, improved manageability, and drastically reduced costs related to administration, hardware, software, maintenance and operations. And end-users profit from features like single sign-on and simplified authentication. Only Oracle integrates all
applications at the middleware level so that customers don’t have to spend time and money on integration, configuration, and testing.

New devices and tools for communicating and collaborating will continue to move into the workplace, while the need to communicate with colleagues, customers, and partners across the globe will continue to grow. With a consolidated collaboration infrastructure, an organization can provide the levels of service, reliability, and scalability that their users demand.

**Oracle Collaboration Suite 10g Portlets**

Oracle Collaboration Suite 10g Portlets will be available with the next major release of Oracle Collaboration Suite 10g (10.1.1). Oracle Collaboration Suite 10g Portlets provides tighter integration into all Oracle Collaboration Suite 10g components. These portlets provide a real-time rollup display of critical enterprise from all Oracle Collaboration Suite 10g components, such as Oracle Calendar, E-Mail, Files, Web Conferencing, etc. The rollup views allow users to perform functions directly from Oracle Portal against Oracle Collaboration Suite 10g components. In addition, distributed architecture allows flexibility in deployment; collaborative portlets can run anywhere and don’t require in-process deployment with Oracle Collaboration Suite 10g components.

Oracle Collaboration Suite 10g Portlets have several new features focused on improving the user experience.

- **Fixed portlet height** – Typically, portlets are added to portal regions and there is no way to set the fixed portlet height so the page geometry isn’t affected. When the collaborative portlet’s content exceeds the defined boundary limits, the portlet content becomes scrollable without affecting the portlet’s height.

- **Instance level portlet refresh** – Although the portlet framework supports caching, the collaborative portlets can be manually refreshed at the user’s discretion. This refresh does not reload the entire portal page but only the user’s instance of the portlet. Portal users will get up to date information when they need it.

- **Improved searching** – An Oracle Federated search portlet is provided, which posts directly into the Federated Search.

- **Context menus** – Allows you to perform menu-based functions with a single click directly in the Portal page.

Here are some specific portlet enhancements:

- **Calendar portlet** uses partial page rendering when switching between dates, which doesn’t require page refresh.
• Files portlet uses partial page rendering when selecting folders, which doesn’t require page refresh.

• Files portlet exposes My Recent Files feature, which shows you a list of files you have recently accessed.

• Email provides prioritization sorting, which allows you to view messages that are important to you.

Oracle Collaboration Suite 10g Links Portlet
The Links portlet provides a snapshot view of the user's account information in various applications. The portlet serves as a summary of each application's status, as well as a bookmark for links to different applications and URLs. Applications include Email, Voice Mail, Calendar, Tasks, Notifications, and Files. Users can also include user-defined URLs in the portlet as well as setting their presence availability.

Oracle Collaboration Suite 10g Links Portlet

Oracle Email
Oracle Email takes advantage of Oracle's core competencies in providing easy access to, securely storing, and proficiently managing all types of information by using the Oracle Database as a message store. With Oracle Email, users can access and manage their messages from a choice of standards-based clients, including full support for Microsoft Outlook, Lotus Notes, an integrated Web client, mobile and traditional phones, PDAs, and faxes. Full integration with Oracle Files means users avoid sending heavy documents as attachments over the network, but can instead include links to files and folders within email messages. Full integration with wireless means email can be accessed anywhere.
Oracle Collaboration Suite 10g Email Portlet

The Oracle Email portlet provides seamless integration with the Oracle Email Web Application by displaying a configurable list of messages, such as email, voicemail and fax, and providing links into the Email Web Application. The portlet provides a summary or snapshot view of a user's email inbox. The Oracle Email portlet provides access to the Email Application directly from Portal. In addition to showing a simple snapshot of the user's inbox, the portlet includes features such as message prioritization and filtering. This powerful feature-rich portlet allows the user to perform email related operations from within the portlet itself.

Oracle Calendar

Oracle Calendar provides the ability to manage personal time and organizational resources within the context of 'intelligent' real-time information delivery. This provides for both improved efficiency and the ability to optimize business processes throughout the enterprise. Integration within Oracle Collaboration Suite 10g means streamlined scheduling of meetings with relevant files and full wireless and voice support.

Oracle Calendar features integration with real-time online collaboration services, providing the ability for users to schedule and join Oracle Web Conferencing directly through their calendars. Also, Oracle Calendar answers the enterprise need for resource scheduling depth with features such as Hierarchical Search and Approval Workflow. Calendar users will now be able to search for and book resources based upon attributes or hierarchy, so booking items such as conference rooms based on set parameters and preferences is now very simple.
Oracle Collaboration Suite 10g Calendar Portlet

The Calendar portlet provides seamless integration with the Calendar Application by displaying the schedule in a daily grid or a weekly list form, and providing links into the Calendar Application. The Oracle Calendar portlet provides access to the Calendar Application directly from Portal. It also allows users to navigate between the portlet and appointment creation in the Calendar Application with the time set, and between the portlet and the editing screen in the Calendar Application of a particular appointment.
Oracle Collaboration Suite 10g Task Portlet

The Task portlet provides seamless integration with the Calendar Application by displaying the tasks in a list form, and providing links into the Task View of the Calendar Application. The list displayed is sortable. The Oracle Task portlet provides access to the Calendar Application directly from Portal. It also allows users to navigate between the portlet and task creation in the Calendar Application, and between the portlet and the editing screen in the Calendar Application of a particular task.

Oracle Files

Oracle Files provides an enterprise-wide content storage and management system. Oracle Files answers the need for data consolidation by storing all content in the same file system on one single instance of an Oracle Database. The data is accessible anywhere, greatly reducing the costs and administration complexity associated with maintaining distributed file servers across the globe. Oracle Files allows for access to the data store through all major productivity tools, using a variety of widely used protocols such as HTTP/WebDAV, FTP, SMB, NFS (for Linux) and AFP (for Mac).

Oracle Collaboration Suite 10g Files Portlet

The Files portlet provides seamless integration with the Oracle Files Application by displaying a configurable list of workspaces and folders, and providing links into the Files Application. The Oracle Files portlet provides access to the Files Application directly within Portal. In addition to showing a simple snapshot of the user's Files repository, the portlet includes features such as a user-selectable list of folders and sorting options. This powerful feature-rich portlet allows the user to perform Files-related operations from within the portlet itself.
Oracle Federated Search

Oracle Federated Search allows you to find what you want, both inside Collaboration Suite applications, such as Oracle Email and Files, and outside the Suite on your corporate network. Since Oracle Federated Search uses the same basic Oracle technology, administration and end-user experience extend across all search capability.

Oracle Federated Search is a web-based, out-of-the-box search engine solution that searches across multiple repositories, including relational databases, HTML documents served up by web servers, Oracle Portal 10g, files on disk, IMAP mail servers, and more. Oracle Federated Search uses a 'crawler' to index documents; the documents stay in their own repositories, and the crawled information is used to build an index that stays within a designated Oracle database. Oracle Federated Search accepts search terms from end users through the Collaboration Suite Search page and displays an integrated list of search result hits. As Oracle Email and Files build their own index and update it automatically each time a new email arrives or a new file is uploaded, no crawling is required for Collaboration Suite applications; search results are always fresh and current. Oracle Federated Search provides support for various new attribute types, including date ranges and list-of-values (LOV), improved query APIs, and new support for JSP tags, as well as integration with Oracle Portal 10g and native crawling of Portal instances.

Oracle Voicemail & Fax

Oracle Collaboration Suite 10g stands apart from other collaboration vendors by delivering a fully-integrated robust voicemail & fax system. Oracle Voicemail & Fax enhances traditional voicemail system and fax capabilities with improved scalability, reliability, and accessibility of unified messaging. Voicemail & Fax is designed to co-exist with legacy PBX systems, enabling organizations to gradually lower costs as they leverage the Collaboration Suite data infrastructure and move towards the next generation of unified communications.

Voicemail & Fax leverages the Oracle Email infrastructure, with voicemail messages and faxes residing in and accessed from a centralized, secure message store in an Oracle Database. Oracle Voicemail & Fax applications are built on standard interfaces and support Enterprise Computer Telephony Forum (ECTF) standards (collectively known as "CT Server"), which allow Oracle Voicemail to easily integrate with a variety of enterprise and carrier class switches.

Oracle Voicemail provides access through multiple channels, including the phone, Microsoft Outlook, standards based clients (IMAP4 or POP3), and web based UIs such as Oracle Portal 10g. As messages are stored in industry standard formats (.wav for voicemail and .tif for fax), they require no special player, which makes it easy for users to store and manage their data. Users have a single inbox for all
email, voicemail and fax messages, which increases productivity and provide great ease of use.

**Oracle Wireless**

Oracle Collaboration Suite 10g gives your mobile employees full access to all corporate information anywhere, from any device. Its complete set of capabilities lets users access email, calendar, tasks, files, and corporate directories via their voice, PDAs, web-enabled mobile phones, and pagers. Oracle Collaboration Suite 10g alerts your employees of important events and emails. It also lets you define where you are right now (in other words, your context), so that alerts get routed to your desktop, mobile phone, or other device.

**Oracle Web Conferencing**

Oracle Web Conferencing is a powerful real-time online collaboration system that enables employees, customers, and partners to meet online. Web Conferencing is designed and developed to meet the requirements of real-time collaboration across the enterprise, in three important ways:

- By supporting all types of meetings (including live help sessions, interactive meetings and web seminars)
- By providing integration services within the context of established business processes and enterprise applications
- By delivering real-time performance with efficient network bandwidth utilization.

Oracle’s flexible, integrated feature set gives presenters and attendees a range of collaborative options. Co-browse functionality provides fully synchronous browsing of web pages with a small or a large number of users based on HTML browser sharing. When using co-browse, requests are sent to the Real-Time Collaboration server, then are parsed and sent back to all connected browsers, resulting in less bandwidth consumption than desktop sharing. However, when the added functionality provided by desktop sharing is required, presenters can share anything on their Microsoft Windows-based computer (a region, an application, or their entire desktop) with other attendees in real-time. Web Conferencing also includes document presentation functionality for selecting and displaying Microsoft Office documents, HTML files, image files etc. from the Web Conferencing personal materials repository. The whiteboard feature provides meeting presenters and attendees with access to a rich set of mark-up and drawing tools, and voice streaming capabilities provide listen-only streaming of voice from any telephone or teleconference system through the Web Conferencing console. Other Web Conferencing features include polling, chat, recording and playback.
The Web Conferencing portlet provides an easy means of creating and accessing Web Conferences. The Oracle Web Conferencing portlet provides access to the Web Conferencing Application directly from Portal. A scrolling list of conferences that the user is invited to or is moderating is also provided, and the user may review or modify a conference’s details by clicking on the conference’s title. Buttons provide quick links to join a conference (given the conference ID and password), to create an instant conference, or to schedule a conference for the future.

### Oracle Collaboration Suite 10g Web Conferencing Portlet

The Web Conferencing portlet provides an easy means of creating and accessing Web Conferences. The Oracle Web Conferencing portlet provides access to the Web Conferencing Application directly from Portal. A scrolling list of conferences that the user is invited to or is moderating is also provided, and the user may review or modify a conference’s details by clicking on the conference’s title. Buttons provide quick links to join a conference (given the conference ID and password), to create an instant conference, or to schedule a conference for the future.

### PORTAL INTEGRATION SOLUTIONS (POINT)

Portal Integration Solutions offers portlets that allow you to integrate various applications within your portal. These portlets are pre-built and easily configurable to use with your existing application. Examples of the Portal Integration Solutions portlets include:

- Lotus Notes portlet
- Microsoft Exchange portlet
- Oracle Workflow portlet
- Jive portlet
- SAP generic portlet
- SAP specific portlets for finance, human resources, sales, and inventory
- IMAP portlet
- SMTP portlet
- SMS portlet
- IBM Tn3270 portlet
- Telnet portlet
- Unified Messaging System portlet
- Discussion forum portlet
- Site indexing portlet

Lotus Notes Portlet

The Lotus Notes portlet provides a complete integrated solution to display application data directly from your Lotus Domino Server onto Oracle Portal 10g. The provider includes four portlets to integrate with Oracle Portal 10g: Inbox, Calendar, Contacts, and To Do. Each of these portlets renders information associated with a user's Lotus Notes mail database.

Oracle Portal 10g Lotus Notes Portlets
Exchange Portlet

The Microsoft Exchange portlets offer a complete solution for routing application messaging and contact information directly from Microsoft Exchange 5.5/2000 to Oracle Portal 10g. The provider includes three portlets, each of which renders information associated with a user's MS-Exchange mailbox:

- Inbox, which displays messages from the user's Exchange inbox
- Calendar, which displays today's appointments and meetings for the user
- Contacts, which displays the user's list of contacts

Oracle Portal 10g Exchange Portlets

Provider for Jive Forums

The Provider for Jive Forums (http://www.jivesoftware.com/products/forums/) contains five portlets that expose Jive Forums Application content within Oracle Portal 10g. The portlets provide Oracle Portal 10g users with seamless, high-level interaction between the two applications.

The portlets allow users to:

- View topics posted on their favorite forums
- Create a new topic or post a reply to one
- Search the forums
- View the hot topics across all forums
• View all topics, forums, categories and users being watched by the user
• View top reward points earners
• Administer the Jive Forums Application (only admin users)

The following portlets are bundled in with the distribution:
• Forum Viewer
• Hot Topics
• Watched Items
• Rewards
• Admin

Workflow Portlet
The Workflow portlet provides users the capability to view and respond to workflow notifications directly on the Oracle Portal 10g page.

Oracle Portal 10g Workflow Portlets

PARTNER SOLUTIONS
Oracle has many partners dedicated to providing and supporting collaboration solutions for Oracle Portal 10g. These portlets are offered through the Oracle PartnerNetwork Solutions Catalog. The Oracle PartnerNetwork contains information on the members of the PartnerNetwork, as well as the products and services they offer. Some of the collaboration portlets offered by Oracle’s partners include surveys, email, chat, interactive calendars, discussion forums, personalized news feeds, meetings portlet, discussion board, and so on.
BUILDING DECLARATIVE PORTLETS

Oracle Portal 10g's PortalTools application contains new portlets designed to capture and integrate data from multiple data sources, including relational databases, Web Services, spreadsheets, XML sources, and web sites. The OmniPortlet and Web Clipping portlets shift the customization and integration of portal development from information technology (IT) departments to end users, empowering non-technical users to customize portal content and integrate data via self-service interfaces.

Webclipping

The Web Clipping portlet offers an easy and intuitive method for capturing content from existing web sites or applications and presenting it as a portlet. The page designer and the end user can create new portlets based on “clippings” directly from the browser, without any help from the information technology (IT) department. “Clippings” are pieces of existing web content that can be re-purposed in other web pages, particularly portals.

The Web Clipping Studio is a tool that the page designer uses to edit the portlet. The Studio allows the user to navigate to a web page similar to a standard browser, divide the page into “clipped” sections, and choose the appropriate section for presentation in the portal. Behind the scenes, the studio records all the URLs in a secured repository, and “replays” the navigation portlet when the portlet is shown on the portal page.
Basic flow to capture a page using Web Clipping

**OmniPortlet**

OmniPortlet is a sub-component of Oracle Portal 10g designed to enable “power-users” (portal page designers or content contributors) to quickly and easily publish data from different data sources using a variety of different layouts through a web-based wizard.

An OmniPortlet can be based on almost any kind of data source, such as a spreadsheet (CSV), XML, Web Services, database (JDBC), or even application data from an existing web page. To retrieve personalized data, the page designer defines the parameters for each type of data source to filter the result of a query and the credential information used to access secured data. Out-of-the-box, OmniPortlet provides the most common layouts for portlets, including tables, charts, news, bulleted lists, and forms.
Oracle provides a wide variety of portlets and tools to build a collaborative environment for your enterprise portal. However, you may need to extend the functionality available from Oracle Portal 10g to leverage the latest web-based technologies or to integrate your own collaboration applications.

BUILDING CUSTOM PORTLETS

The Oracle Portal 10g Developer Kit (PDK) includes APIs to build custom portlets and leverage technologies such as J2EE, Web Services, Struts, LDAP, and much more. The goal of the PDK is to provide the developer with as much control as they need, while still reducing the amount of actual coding required by providing a declarative mechanism that lists and defines portlets.

Adding Features to Your Portlets

The PDK APIs provide a complete list of functionality and features that allow your portlet to be as powerful as any other application. The following are a few of the features available to you when building portlets:

- Turn existing components into portlets:
  - Java/J2EE (e.g. JSPs, Java Servlets, EJBs)
  - XML data sources (e.g. XSL, RSS)
  - Web Service (e.g. Doc, RPC)
• Build your portlet’s user interface:
  o Browser technologies (e.g. HTML, JavaScript, CSS, XSL, Flash, Java Applets)
  o Error handling
  o URL rewriting

• Internationalization (e.g. NLS, language support, character-set information)
  o Session management
  o Information storage

• End-user personalization (file, database, preference store)

• Session storage

• Parameters & events

• Performance
  o Scalability (e.g. load balancing, failover)
  o Caching (invalidation-based, validation-based, expires-based)

• Security
  o Portlet security (e.g. partner app, external app, portal app, mod_sso)
  o Application security (e.g. JAAS/JAZN)
  o LDAP security

CONCLUSION
Oracle Portal 10g and Oracle Collaboration Suite 10g provide the framework to organize information, readily access that information, manage documents, and enable efficient collaboration - all delivered in a familiar, single interface, browser-based environment.

Organizations realize that collaboration and knowledge management are important factors for everyday business. Oracle Portal 10g enables organizations to deploy comprehensive solutions that enable and foster collaboration and coordination across communities of employees, customers, and partners. Oracle Portal 10g also provides the framework to develop process-specific portals, which provide increased value to specific users as they create work environments more relevant to their jobs.
MORE INFORMATION

Please visit Oracle Portal 10g Center at http://portalcenter.oracle.com for in-depth information on all aspects of Oracle Portal 10g.
