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# Oracle WebCenter Suite 11g New Features

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Major new  
functionality for  
Oracle WebCenter  
Suite 11g includes:

- 1) Oracle  
WebCenter  
Framework,
- 2) Oracle  
WebCenter  
Spaces
- 3) Oracle  
WebCenter  
Social  
Computing  
Services
- 4) Oracle  
Composer  
with Oracle  
Business  
Dictionary

## Executive Overview

In today's hyper-competitive global economy, the ability to be agile and responsive to change is more important than ever before. Information and the interactions around it have become the key assets of most enterprises, and making correct decisions in shrinking cycle times is the defining operating characteristic of winning companies. The market imperative to access the right information and people at the right time has led to an increased interest in building a next-generation enterprise workplace. Such a workplace leverages Web 2.0 technologies and usage patterns to transition the enterprise to an Internet-powered, user-focused, and community-centric social fabric that ties together people, ideas, content, processes, systems, and enterprise applications.

Bringing Web 2.0 capabilities and services to the enterprise is about more than just the latest technology; it's about changing the traditional business model and tapping into the creativity, intellect, and passion of every single employee. It is much more important for companies to understand the changing trends in business than to just implement the next "hot" technology product. Oracle WebCenter enables companies to foster the development of new ideas, tap into critical employee thinking and knowledge, and enable the synergy of teams to revolutionize their existing business models and achieve lasting success.

At the core, Oracle WebCenter is built on a standards-based, open, declarative framework. This enables combining rich internet applications (RIAs) development through dynamic user interface technologies with the flexibility of an integrated multi-channel portal framework and horizontal Web 2.0 services that provide content, collaboration, presence, and social computing capabilities in the context of a business problem or user task. In summary, **Oracle WebCenter Framework 11g** speeds the delivery of next-generation applications and portals that blend composite interfaces, social communities, web applications, and departmental and enterprise portals.

To enable businesses and users to quickly leverage the power of WebCenter's integrated framework and services, the ready-to-use **Oracle WebCenter Spaces** application provides dynamic online communities to quickly share information, collaborate on new ideas, and manage projects without waiting for IT to build a specialized solution. Simply install Oracle WebCenter Spaces, and your team or company can be productive

immediately. No development delays, no scattered set of departmental portals, and, finally, a way to manage all the unstructured processes that drive every business –all managed from a single, integrated management console delivered through Oracle Enterprise Manager.

Enterprise communities leverage **Oracle WebCenter Social Computing Services** to enable online users to find others in the organization and to exploit the tools for communicating and sharing information quickly and easily. To relegate your organization's experts to delivering isolated services as part of a departmental portal only serves to isolate information and users to their specific group. A central set of services that are available as required is essential for pushing knowledge throughout the organization and operating much more effectively.

Because users must interact with all the resources in the enterprise, portals must integrate an **Enterprise Business Dictionary** and provide pre-packaged integration with applications, content, rich media, business processes, and business intelligence in a role-specific way that speeds user awareness of these critical resources. **Oracle Composer** enables users and site administrators to highly personalize the behavior, look, and feel of the portal to meet user requirements while insulating them from future upgrades. No other product today offers this complete, integrated, best-of-breed suite of capabilities that allows businesses to finally tap into the key knowledge and thinking of all their employees and partners to power them into the future.

## Introduction

Internet computing technology has experienced at least two revolutions. The first wave, referred to as Web 1.0, provided a way for companies to publish information about their products and services to consumers external and internal to their enterprises. Today, technology is advancing through a second revolution, referred to as Web 2.0. Inflexible, monolithic applications are transforming into Service Oriented Architectures (SOA's) with composite, business-driven solutions that quickly evolve with the rapidly changing requirements of the organization. Web 2.0 is technology's response to the need to access multiple applications and to integrate content and other resources with these applications in the context of a specific business task. It represents the convergence of application development and portal architectures. Additionally, rich Web 2.0 technologies

such as wikis, blogs, tagging, linking, discussions, and RSS provide dramatic efficiencies in how people work together to come up with a common voice or a key answer.

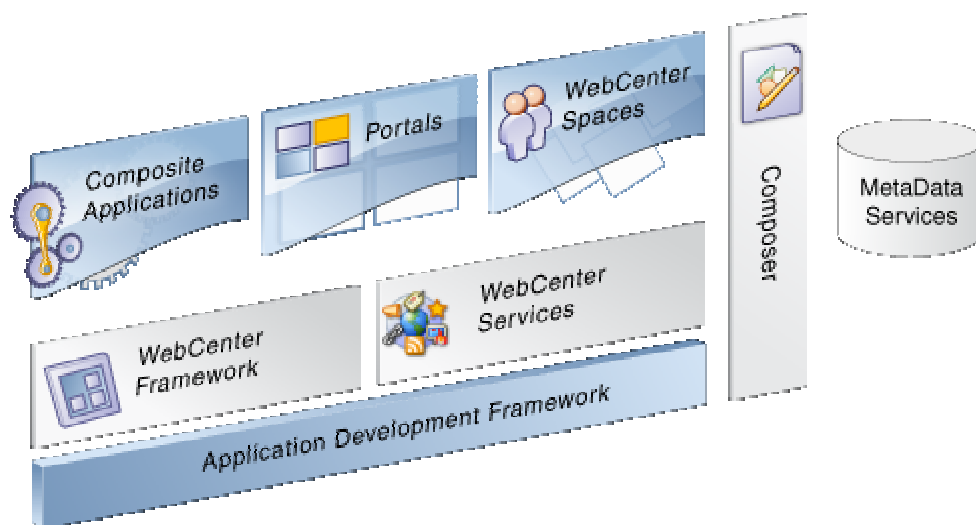
Currently, bringing the benefits of individual Web 2.0 technologies into the workplace also means that users juggle many applications and tools to get their work done. There is no connection between these new services that force users to remember how all the information relates. Users need an easy way to bring it all together into one environment to streamline and simplify the way they work. IT needs an easy way to manage one centralized set of services and make them universally available to all the teams that require them. Today, each department installs their own wiki server or their own blogging engine, and IT is left to manage all the issues around compliance, archiving, aging out information, and integrating search across the different tools. Attempting to harness all the valuable information from these virtual islands and integrate it with enterprise application processes is no small task.

## Oracle WebCenter Suite 11g: A Complete Solution

Oracle WebCenter Suite 11g provides an open, standards-based, and extensible framework that enables users to interact with Business Applications and services. Oracle WebCenter makes it easy for users to get the information they need and to work with others to make the necessary changes to business applications and processes. It supports in **a single, modern framework** the development of all styles of Web sites, Portals, and composite applications. Oracle WebCenter delivers **Oracle Composer** for users and site administrators to highly personalize the behavior, look, and feel of the Portal to meet user requirements while insulating them from future upgrades. Oracle WebCenter provides an adaptable service model that follows what SOA has done for Enterprise Applications by enabling delivery of reusable, customizable, and personalizable **Social Computing Services**. Because users want to interact through the Enterprise Portal with all the resources in the Enterprise, Oracle WebCenter provides direct integration with **Oracle's Enterprise Business Dictionary** and provides pre-packaged integration with Applications, Content and Rich Media, Business Processes, and Business Intelligence in a role-specific way to speed user awareness of these critical resources. Together, this integrated set of Oracle WebCenter tools and services empowers end users and IT to build and deploy next-generation collaborative applications and portals that take advantage of the creativity and intellect of every user to improve internal and external business processes and **delivers this information to users pervasively**.

## Oracle WebCenter Suite 11g Components

An essential element of modern business applications and portals is that they are designed to be evolved by business users after they have been built. Oracle WebCenter 11g includes components that provide a full range of functionality to develop Web-based applications, Internet and extranet Web sites, enterprise and departmental portals, and composite applications. A critical part of the software infrastructure for business applications is that it must make it easy for users to get the information they need and to work with others to make the necessary changes to business applications and processes.



To that end, Oracle WebCenter offers the following components:

- **Oracle WebCenter Framework 11g** is a modern portal framework that extends the capabilities of traditional enterprise portals in four very important ways: (i) Its new capabilities around **Themes and Skins** provide powerful facilities for tailoring the look and feel of the site in a tiered way – for an entire site and for portions of a site associated with a department. This enables consistency in look and feel while consolidating deployment; (ii) **Advanced Personalization Framework** provides the ability to further tailor the usage of the portal and information delivered to the portal based on user's activities; (iii) **Powerful Enterprise Mashup** capabilities enable business users to further personalize the information they want to see – it is unmatched in the industry in its facilities to source Enterprise Information securely; (iv) **Common Enterprise Metadata** services provide a revolutionary way to store all portal look and feel changes, personalizations, and mashups in one shared location, enabling rapid analysis of the impact of any changes to the site. Portals built with WebCenter Suite 11gR1 are therefore ideally suited for all forms of information delivery within the

enterprise and across enterprises. It is delivered as an *extension to Oracle JDeveloper*, which provides an integrated development environment for composite Java EE applications, business processes, BI applications, and enterprise portals.

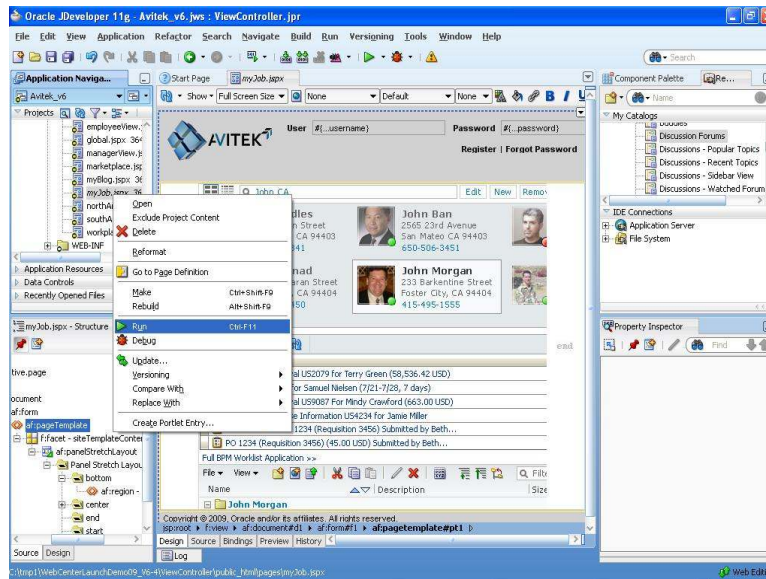


Figure 1: Developing a WebCenter Application leveraging Oracle JDeveloper

- Oracle WebCenter Suite 11g Business Communities, called WebCenter Spaces**, is a ready-to-use application that pulls together WebCenter Services to empower teams to quickly and efficiently manage their information, applications, projects, and people. Oracle WebCenter Spaces introduces powerful new facilities to enable formal and informal Social Communities within the Enterprise and across Enterprises. These Social Business Communities include facilities: (i) for business users to create **Online Communities** dynamically within a browser or familiar personal productivity tools; (ii) for **integrating these communities with Pre-Packaged information resources** from a variety of enterprise sources – Applications, Documents, Content and Multi-Media, Business Processes, and Business Intelligence; (iii) for delivering information from the community to a user who wants to **interact seamlessly within their Personal Productivity tools – Office, Outlook, Mobile**; and (iv) for embedding **business communities directly within Enterprise Applications**, eliminating information duplication and incorporating Social Computing facilities that capture unstructured interactions directly into Business Applications. WebCenter Spaces offers a powerful set of capabilities that are unmatched in the software industry.



Figure 2: Online Business Community leveraging Oracle WebCenter Spaces

- Oracle WebCenter Suite 11g's Business Dictionary along with Oracle Composer** provides powerful role-based facilities that enable business users to seamlessly unify many corporate information assets with enterprise portals. These include: (i) **Pre-Packaged Enterprise Application Integration** via the Application Library with SAP, e-Business Suite, PeopleSoft, JD Edwards, Siebel, Hyperion, BI Applications, and Oracle's Industry Applications delivered as packaged Portlets; (ii) **Pre-Packaged Enterprise Content Integration** from Oracle Content Management and a variety of other content stores across the Enterprise; (iii) **Enterprise Business Process Integration** via its Process Portal, which unifies the end-user's Worklist, the composite user interfaces for the applications being integrated into Business Processes, the Business Process Console, and Process Intelligence via a pre-packaged Business Process Library; (iv) **Enterprise Business Intelligence** via its integration with Oracle Business Intelligence and Enterprise Performance Management products that make the enterprise portal both an **Executive Intelligence Cockpit** and enable personalized collaboration around Business Intelligence.

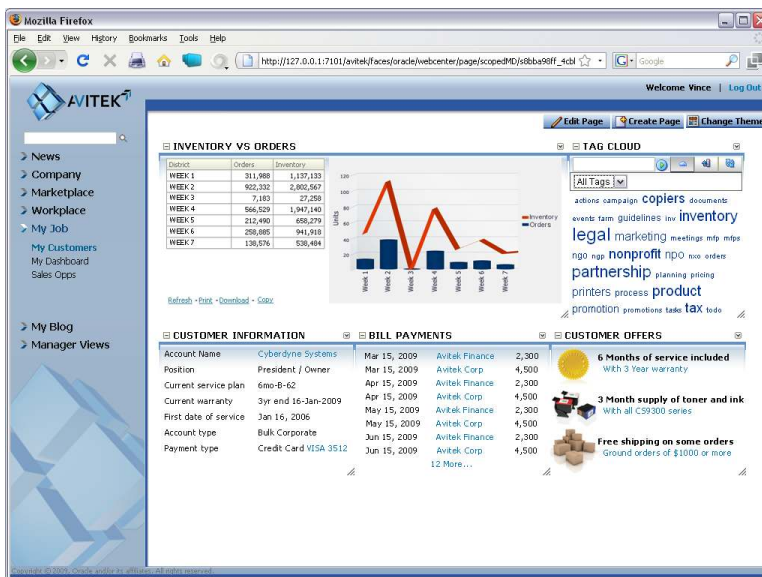


Figure 3: Executive Intelligence Cockpit mashup including Oracle eBusiness Suite, PeopleSoft, Seibel, Real-Time Decisions, Oracle Business Intelligence along with a Tag Cloud.

- Oracle WebCenter Suite 11g Social Computing Services** make it easy to integrate new social computing tools with enterprise information and business processes. There are four breakthrough capabilities: (i) the **most comprehensive catalog of pre-packaged social computing tools and services** available today, including wikis, blogs, RSS, lists, discussions, and search. Each of these services is seamlessly integrated as a resource library within the framework, making drag-and-drop addition to business applications and portals easy. (ii) the ability to **model the relationships between Business Resources** that are included within the Enterprise Portal **and the people** accessing those resources to enable the creation of both formal and informal social networks; (iii) **Activity Graphs** that deliver revolutionary facilities to derive valuable but non-obvious social relationships based on information access patterns between people, content, and enterprise application activities; (iv) existing customers of products such as **WebLogic Portal, Oracle WebCenter Interaction, and Oracle Portal** can directly leverage all of these features within the context of their existing production releases.

Recognizing that, as more information resources in an organization are integrated with enterprise portals, the need to have that information delivered pervasively to users becomes ever more important, Oracle WebCenter Suite 11g's Pervasive Delivery facilities provide five important new capabilities:

- First, the ability to deliver the information that users need into all the common personal productivity tools – Office, Outlook, Browser, Mobile - that they might access while maintaining their focus on the task at hand
- Second, to seamlessly embed the Portal and its information in a “headless” form via its powerful REST capabilities into departmental web sites and applications
- Third, via its integration with WSRP 2.0 the capability of embedding information surfaced in WebCenter into other portals within the enterprise and consuming Sharepoint WebParts directly
- Fourth, via Oracle Ensemble to provide a lightweight deployment environment within a firewall or DMZ or for departmental and branch-office access
- Fifth, leveraging Oracle WebCenter Analytics to deliver usage-based information on the impact of the portal and all its content to better target and deliver information to all users

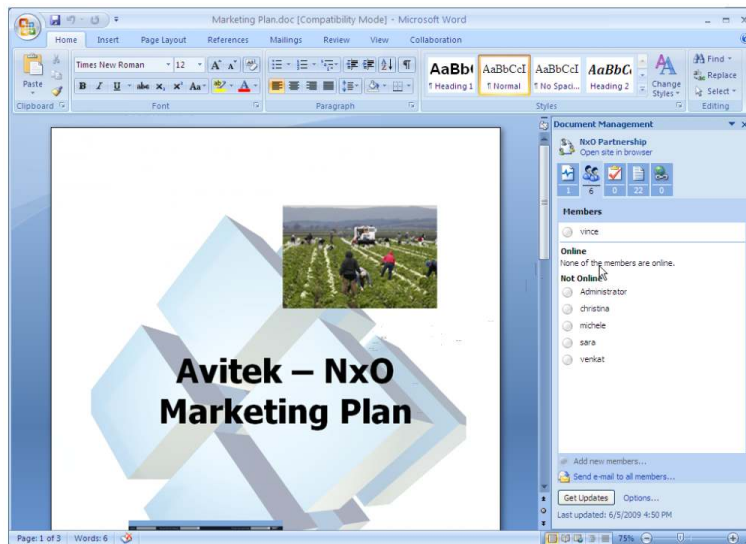


Figure 4: Oracle WebCenter Spaces available inside of Microsoft Word

## Oracle WebCenter Framework 11g

Oracle WebCenter Framework is an Oracle JDeveloper design-time extension that breaks down the boundaries between Web-based portals and enterprise applications. It

also provides the runtime portal and Web 2.0 framework on which all Oracle WebCenter technology runs.

Oracle WebCenter Framework enables you to embed AJAX-based components, portlets, services, and content into context-rich customizable applications and portals.

Traditionally, developers had to decide whether they were building a portal, a Web application, a composite application, or community site. Oracle WebCenter Framework provides a modern development framework that bridges these gaps and speeds delivery of all these different types of applications. Developers do not need to decide ahead of time whether they are building a portal or an application; with Oracle WebCenter Framework, any application can be a portal and any portal can be an application. Most importantly, Oracle WebCenter Framework is designed in such a way that each type of component can be added to the portal or application when required, or left out if not required. This significantly improves overall application delivery and the speed at which enterprises can react to changing market conditions.

Oracle WebCenter Framework augments the JSF declarative development environment with additional components, integration, and runtime options by incorporating capabilities that are historically included only in portal products. These capabilities enable you to:

- Build and consume rich standards-based portlets
- Integrate content from many different content stores through standard interfaces
- Make the application customizable at runtime, thus empowering end users to edit application pages according to their requirements using Oracle Composer
- Enable administrators to personalize the behavior of components in ways that are helpful to their users

Oracle WebCenter Framework's standards-based portlet development environment and business user tools support the rapid creation of JSR 168-based portlets and the deployment of WSRP 1.0- and 2.0-based portlet producers.

Because Oracle WebCenter Framework's security is based on the JAAS and Java EE standards, you can leverage an existing identity management store's enterprise roles directly when securing an Oracle WebCenter application or portal.

Oracle Webcenter Framework includes ready-to-use components for easy addition of social networking and personal productivity services to your application or portal. For example, use the Tags service to enable your users to tag key items and share them with others. Use the Discussions service to quickly and easily provide a means for users to enter important feedback about ongoing work. Use WebCenter Services to create mashups, manage security, or leverage the Oracle JSF Portlet Bridge to easily project any JSF application or task flow into a JSR 168 portlet. Use JSR 170 data controls to integrate and publish content from disparate repositories. Oracle WebCenter Framework

includes adapters for Oracle Content Server and Oracle Portal along with adapters to third-party content stores like EMC Documentum or MS Sharepoint.

Oracle Composer is exposed in Oracle WebCenter Framework as a collection of ready-to-use components that enable your portal or application to be customized or personalized after it has been deployed. You can provide role-based versions of Oracle's Business Dictionary or Resource Catalog to enable all users' access to critical information for shaping the application around the tasks they need to accomplish.

### Build Standards-Based Portlets against a Variety of Sources

Oracle WebCenter Framework includes the following features for creating standards-based portlets against a variety of data sources:

- **Portlet Creation Wizards** assist in building JSR 168 and PDK-Java (Portlet Development Framework for Oracle Portal) portlets quickly and easily.

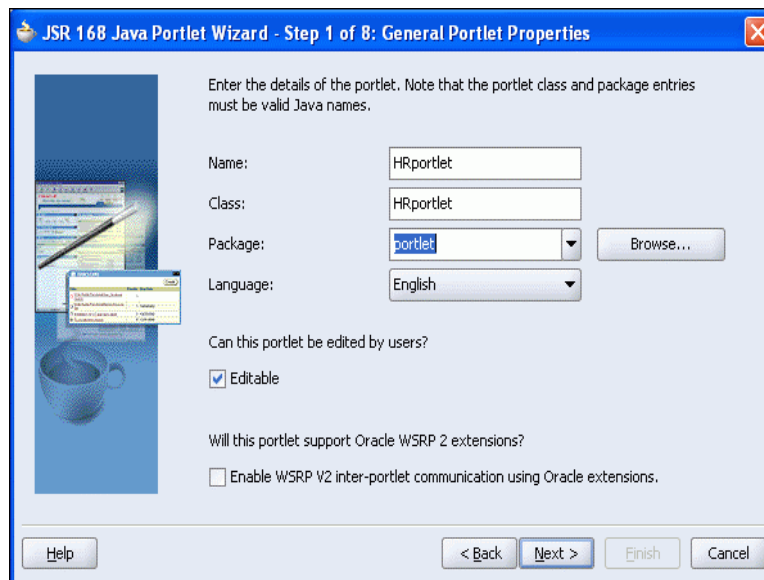


Figure 5: Java Portlet Creation Wizards used inside JDeveloper

- **JSR 168 & 286 Portlets along with WSRP 1.0 & 2.0** standardize pluggable portal components so that they are independent of the actual portal server for which they are written. Consequently, you can reuse portlets seamlessly between portals without changing any code. This standard enables you to share portlets between different Oracle portal products, such as Oracle WebLogic Portal, Oracle Portal, and Oracle WebCenter Interaction, as well as non-Oracle portals.

- **OmniPortlet** enables business users to easily publish data from various data sources using a variety of layouts, without needing to write any code. Using a wizard-based approach, business users can quickly produce new mashups from all of the standard feeds that developers produce. Developers can easily build AJAX-based user interfaces and add them to the wizard for business users to select. Use OmniPortlet to enable your users to include any type of Internet content, such as Google gadgets or RSS feeds, within the context of their portal or application.
- **Oracle WebCenter Ensemble** includes mashup tools for clipping some or all of a Web page and exposing it within an Oracle WebCenter application or portal. Developers can inject new behavior into clipped content, expose the content within a portlet, and reuse a wide range of Web content. This can include pages written with HTML 4.0.1, JavaScript, applets, and plug-in enabled content, retrieved through form submission. It handles advanced cases where identity propagation is critical for getting role-based information to only the users who have permission to see it.
- **Oracle WebCenter Application Accelerator for .NET** provides a means for developers and administrators to service-enable new and existing ASP.NET 2.0 applications through the Web Services for Remote Portlets (WSRP) standard. It also provides an API toolkit that is integrated into Microsoft Visual Studio template extensions to simplify portlet development for .NET developers.

#### Task Flows: Develop Applications/Portlets Like Never Before

In building portals, the model is straightforward: deliver portlets for integration onto one page. However, portlets have four common drawbacks:

- Applications and portlets are often built as separate projects: the application is built first, and then the portlets are produced. This can sometimes nearly double the cost of development and maintenance.
- Often a subset of application logic is replicated within the portlets.
- Coordination logic between multiple portlets is replicated on each page where you want to connect two portlets together
- Due to the portlet standard, there are no transactional semantics across portlets; for example, if there is a “Customer” portlet and an “Orders” portlet, if a transaction is required across these two portlets, it can’t be done in a standard way.

With Oracle WebCenter Framework and Task Flows, developers build an application once out of a set of Task Flows and then individually expose any Task Flow directly as a portlet. When changes or updates to the application occur, the portlets are updated immediately. You can group the coordination logic together with an aggregated Task Flow for reuse from a single instance instead of having to replicate coordination logic in

many locations. Because Task Flows are delivered in the context of the application, they can have transactional semantics wrapped around them. No other development framework provides this revolutionary, powerful, flexible, and standards-based technology.

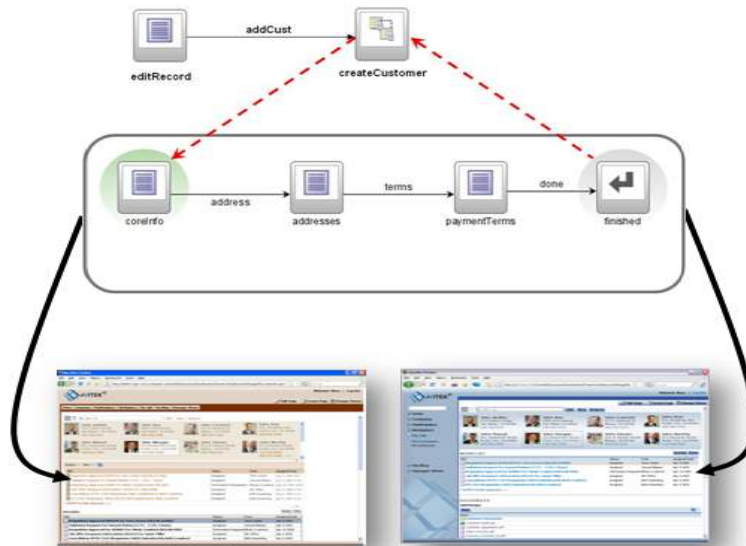


Figure 6: Task Flows provide a flexible way of building & deploying shared portlets that can participate in transactional applications

### Customizing Pre-Built Task Flows To Deliver Exact Look & Feel

Oracle WebCenter 11g Social Computing Services deliver over 50 pre-built Task Flows and portlets. Oracle recognizes that in many cases these pre-built user interfaces don't exactly match what end users require. Traditionally, modifications require that developers rebuild portlets from scratch or get copies of the source code to make modifications directly. Subsequently, when new versions of the base components are delivered, the process starts all over again. With Oracle WebCenter Framework's powerful personalization and customization capabilities, you can customize the pre-built Task Flows and portlets delivered with WebCenter's Social Computing Services to deliver the specific look and feel that is required without accessing the source code. For example, if a user's photo must be displayed with each discussion thread, you can customize the pre-built Task Flow in JDeveloper on within the browser using Oracle Composer to add this functionality directly. Customizations are saved directly into Oracle Metadata Services (MDS) without any coding on your part. This also means that when new

versions or patches of the Task Flows are released, customizations can be directly applied without any complicated merge processes.

### Integrate Content With Document Library Using JCR Standard

In today's IT deployments, structured and unstructured content must be organized through content management systems. Integrating content from these systems usually requires custom coding against proprietary and complex APIs. In the past, creating new applications that leveraged these content systems has been costly and difficult to maintain or upgrade.

Oracle WebCenter Framework leverages the Java Content Repository (JCR) standard and provides an easy alternative to purely coding against JCR APIs for achieving integration. Oracle WebCenter Framework hides the complexity of the JCR standard behind a generic framework, making integration a simple matter of dragging and dropping the relevant controls into your application and binding them to the appropriate content data control. Additionally, Oracle WebCenter includes a browser-based UI (or Task Flow), called *Document Library*, to manage and interact with the content items. Adapters written in compliance with the JCR standard provide access to different back-end content systems. This enables developers to handle content repository connections the same way they manage all other connections for their applications. After the application is deployed, you can update these connections independently from the application logic.

Oracle WebCenter provides JCR adapters to access Oracle Content Server, Oracle Portal, and the file system. Additionally, Oracle delivers a set of adapters for third-party content systems (such as EMC Documentum, IBM Lotus Domino, and MS Sharepoint), and also supports third-party adapters supplied by other vendors. If you have content that is stored in a proprietary content system (for example, digital media assets), you can create your own proprietary content adapter that leverages the JCR standard and use it with Oracle WebCenter Framework.

### Mashup/Wire Components & Portlets Through Contextual Events

One way to ensure that your users can use information in-context of their current work is by wiring—or mashing up—related components or portlets together so that their content is always synchronized. In Oracle WebCenter Suite 11g, this is delivered via Contextual Events that are part of the Oracle WebCenter Framework. To provide a rich, dynamic application or portal, Oracle WebCenter Framework enables you to wire together Oracle ADF Faces components, WSRP portlets, PDK-Java portlets, and Task Flows. For example, suppose you have a Products portlet and a Service Tickets portlet on the same page. These portlets—which would likely be wired together—are based on the product identification number. When a specific product is selected in one portlet, all the service tickets are shown immediately. The key is that the Contextual Event Framework provides

the ability to refresh only the contents of affected components. This ensures a rich, dynamic, and intuitive user experience that does not rely on the user knowing when or how to refresh the page, and requires no direct coding to deliver rich Web 2.0 applications and portals.

### Secure Applications, Portals, and Communities Via Standards

When you build a custom portal using Oracle WebCenter Framework, you can develop the portal to enable "Delegated Administration" capabilities at runtime, such that runtime evolution of the portal can be assigned and managed across different users or groups of users.

With the Oracle Java Platform Security extensions provided in Oracle WebCenter Framework, you can define security for an entire application or portal, for any page within the application or portal, or for individual actions provided by different components. The Security Wizard assists you in easily configuring security for your Oracle WebCenter application. Additionally, you can use WS-Security for secure identity propagation for the WebCenter Social Computing Services and WSRP producers.

Because Oracle WebCenter security is based on the JAAS and Java EE standards, you can directly leverage the enterprise roles that are defined in an existing identity management store when securing an Oracle WebCenter application or portal. You do not need to synchronize roles within the portal that you are building; instead, the application references and uses defined users and roles directly. Additionally, you can use file-based security during the development phase of your portal and then easily switch over to an enterprise identity management server during the deployment phase.

Many applications manage their users and passwords directly and are not integrated into a single sign-on architecture. Consequently, users are forced to remember their various user names and passwords for several different applications. Because you can leverage existing applications that have their own authentication mechanism—such as e-mail or custom applications—you can use Oracle WebCenter Framework's external application features to map user names from your application to the existing applications. By leveraging the Oracle Credential Store included with Oracle WebCenter Suite 11g, the disparate user names and passwords can be stored securely so that your end users can leverage a single sign-on experience to access all of their needed applications, even if all the applications aren't on the same identity management system.

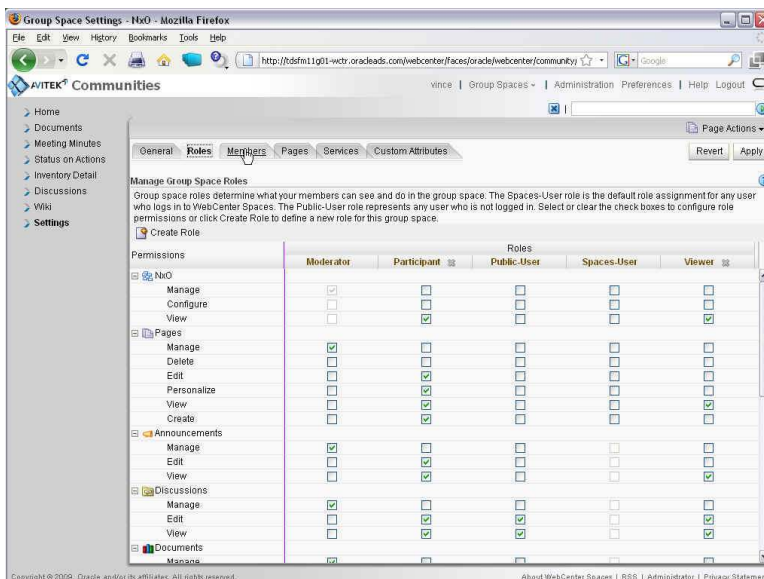


Figure 7: Assigning Enterprise Roles is built-in no matter what back end system is required

## Deliver Content Pervasively Over Multiple Channels

Oracle WebCenter Framework's development framework enables you to surface pages and content over multiple types of channels. For example, you can surface your application simultaneously in a browser and a handheld device, and, for the latter, provide a look and feel that is more appropriate for mobile devices.

Oracle WebCenter Framework's interaction management features enable you to improve the visitor experience, increase adoption and loyalty, and achieve your goals for customer interaction with your application or portal. The ADF Mobile and ADF Native Mobile capabilities provide a means of delivering a targeted experience for the different mobile devices, while at the same time leveraging all the same resources used in your application or portal.

With Oracle WebCenter Suite's Representation State Transformation (REST) services, all Social Computing Services and base portal services can be accessed and delivered in any portal, application, or web site. It enables .Net developers, PHP, PERL, Ruby, and any non-Java language to access these core services and directly take advantage of them. In this way, the services can be pervasively used throughout the enterprise or with partners in a secure way, but all managed from a central IT instance. This enables teams to add new capabilities quickly and provides a single set of procedures for use in managing, archiving, and discovering this information when needed.

## Personalizations, Customizations & Oracle Metadata Services

Oracle WebCenter Framework uses the Oracle Metadata Services (MDS) repository to provide a means of setting up personalized content and services to enhance how users interact with your application or portal. The information is stored as a layer on top of the base application deployment, which insulates you and your users from updates and patches to the base application or portal. MDS is used across business processes, with business intelligence information, and with Oracle's new enterprise applications. It is a common metadata store that delivers unmatched capabilities that insulate applications and portals from patching and new releases.

Personalized content can include content or images targeted to specific users or audiences. For example, you can create dynamic images or links that are personalized for each user. Using this example, you could dynamically guide users through a process (such as signing up for employee benefits or shopping online) that takes them to different places based on their personal preferences or characteristics. You could even record the path users take through your portal to gauge the effectiveness of the portal, its design, or your process flows. Using this type of behavior-tracking provides information that can validate your strategies or help you make improvements. Additionally, Oracle WebCenter Framework provides an interaction management framework that enables you to create applications that:

- Automatically display user-specific content and portlets based on user profile attributes, user behavior, date/time, and so on
- Track interactions that your users have with their applications or portals
- Trigger custom actions when specific events occur

## Oracle WebCenter Spaces: Dynamic Business Communities

Oracle WebCenter Spaces is a ready-to-use application that delivers dynamic Business Communities and pulls together the capabilities of all the WebCenter Services. It empowers teams to quickly and efficiently manage their information, applications, projects, and people without requiring IT assistance. It brings together the latest technology around social computing, communities, personal productivity, and ad-hoc team interactions with no development effort. Oracle WebCenter Spaces enables users to work more effectively with project teams and work groups, including teams that span multiple geographies and even include external members. It eliminates or reduces duplication of effort and content inconsistencies, and it enables sharing and collaboration on team content to focus valuable resources on solving business problems, tapping into new ideas, and reducing time to market.

By providing a dynamic foundation for users to work together in teams, Oracle WebCenter Spaces assists your enterprise in addressing many challenges, such as:

- Geographically disperse teams with poor communication
- Slow progress on projects and business initiatives due to lack of coordinated information
- Information locked away on individuals' desktops and unavailable to others
- E-mail overload and too many attachments requiring merging of changes
- Inaccessible business intelligence information at the time when it is required
- Direct integration and support of Enterprise Application transactions
- Client software incompatibility and upgrades (Notes, Outlook, Safari, Internet Explorer, etc.)

Oracle WebCenter Spaces delivers the following powerful features that enable you to provide productive online business communities through team-based sites and enterprise and departmental portals:

- **Personal Spaces** provide individual users with a dashboard of personally relevant information. Users' personal spaces likely include links or portlets for critical applications they use every day and can easily include their own personal feeds from a friend's social network pages. Personal spaces deliver a way for each user to have a set of personal pages with all the privileges for creating, changing, and sharing them with others. Personal pages can provide easy access to users' personal e-mail, tasks, recent documents, and the tags they use most.

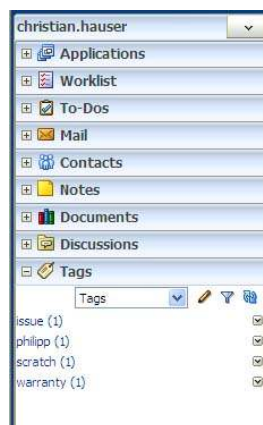


Figure 8: Personal Space Sidebar provides access to all relevant information for individual users

- **Business Role Pages** provide a powerful way to communicate with specific types of users within an organization and across the company. As defined in an enterprise, users have specific roles for their various groups—from administrators to sales representatives, engineers to business managers. Communicating with a specific set of people in these roles can be challenging. Business role pages provide an efficient way to attach a page or set of pages to a specific enterprise role so that all users assigned this role are kept up-to-date with information specific to them and their job function.

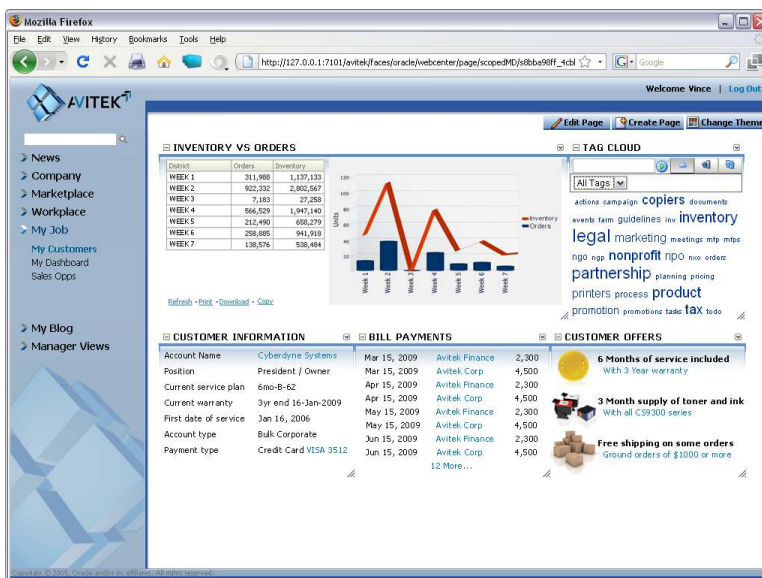


Figure 9: Business Role Pages deliver job function specific information leveraging enterprise roles

- **Group Spaces** provide a meaningful way to manage all project details involving any group of users. Group spaces also make it easy to deliver a departmental or enterprise portal without having to spend a lot of development time building out the site. By leveraging the Oracle Business Dictionary or Resource Catalog, administrators and end users get a role-based view of what they can add to the project or portal sites. Group spaces can be completely customized, including the navigation controls, the color scheme, and the look and feel of any task flow or portlet. All of this is managed in a way that insulates the IT team from application upgrades. With the new Dynamic Business Communities and the large number of pre-integrated Social Computing Service task flows or portlets, teams can start working immediately. Dynamic Business Communities additionally facilitate the rapid delivery of enterprise portals. In this area, what sets WebCenter Spaces apart from all other offerings is that you can completely embed Business Communities as part of a business process or a modern business application. This enables the capturing of unstructured activities as part of the business

process or application to provide a complete and integrated Process Portal or Executive Intelligence Cockpit.



Figure 10: Group Spaces allow teams to share knowledge, find experts, and collectively gain consensus

- Group Space Templates** provide a consistent look and feel and an efficient way for everyone to get started. While Oracle WebCenter Spaces is optimally configured out-of-the-box so that business professionals can be productive immediately, there are many applications or portals that require business-specific components to be tailored for a targeted use or process. Group Space Templates enable users to save group spaces they have created as templates for others to use directly. When creating Process Portals or Executive Intelligence Cockpits, you can create a template for quick delivery and consistent views of all information. For IT administrators, this means that they can create a template that configures the Social Computing Services, Business Intelligence components, Process Management components, Enterprise Application components, and other gadgets exactly as they are required for users to complete a specific process or procedure within and throughout the organization. For developers, this means they can deliver a seamless and integrated experience.

### Making the Most of Your Personal Space

A personal space provides each user with a private work area to contain needed information and, more importantly, share it securely with others when required. A

personal space is a private dashboard of information that users can personalize to include services, such as e-mail, online chats, discussion topics, and recent documents, and Internet content such as Google gadgets or RSS feeds, to better track competitors and business news.

The Sidebar provides quick access to your unique personal information, such as the business processes and applications that you need, your recently accessed documents, your favorite discussions, your online peers, and your top-priority e-mails. The Sidebar includes many other key items, from a list of the topics that you want to watch in all the various discussions, to notes that you have captured about projects or personal items, through all the tags that you have defined to immediately access key information.

The Applications pane in the Sidebar displays links to other applications registered through the Oracle Fusion Middleware Control Console. When the Oracle WebCenter Spaces administrator exposes an application through the Applications pane, the application becomes available to every user's Personal Space. Through Preferences, users can enter and preserve login credentials for each application. When users sign-in to WebCenter Spaces, their registered external application login credentials are automatically applied. This provides a fast and efficient way to manage and store all the different passwords for all the applications that aren't yet Single Sign-On enabled. No more trying to remember all the different user names and passwords that end users leverage every day.

The Worklist pane displays a list of all the tasks and workflow requests that come from different applications. You might need to approve sales proposals, employee expenses, project budgets, or new employee hires. Typically, all of these approvals go to your e-mail inbox, and you must remember the application for each request. With the Worklist service, the Oracle WebCenter Spaces administrator can register all the different applications, and you can view and manage all your requests in one organized location, adding time and efficiency to your day.

#### **Create Personal Pages and Add Content**

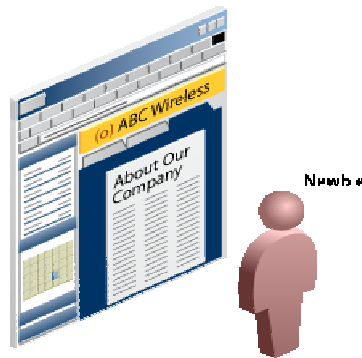
Your Personal Space includes both personal pages that you create and business role pages your administrators create. Business role pages deliver information specific to your role within your organization.

For all of your personal pages, you can personalize the information, the content, and the look and feel to meet your specific tasks or tastes. You can also create new pages very quickly and easily and add any combination of the resources available to you through Oracle Composer. For example, you can build your own custom dashboard to surface Business Intelligence reports, mash them up with an OmniPortlet, add documents from the document library, and display presence information about a set of users and their

online status. You can change and update these pages in a snap: just click Edit Page, and the Business Dictionary opens for selecting from all the role specific information available.

### Stay Informed with Business Role Pages

In addition to personal pages, your personal space displays business role pages, which are specifically targeted to your professional role in the organization. The Oracle WebCenter Spaces administrator can create a set of business role pages for each line of business, and push those pages to all the users assigned a specific role, saving the administrator the time and effort of granting page access privileges to each user individually. Provide information that is timely and relevant to a specific business role instantly, without the noise of irrelevant information from other lines of business. When end users log in, they immediately see business role pages assigned to them in their personal space.



For example, an administrator might create a New Hires business role page, give the Newbie role view access, and then assign everyone who joins the company the Newbie role for a period of six months. Similarly, sales people logging in to their personal spaces will see the Sales business role page, engineers will see the Engineering business role page, and so on. In this way, you can easily push intranet portal pages to users that need specific, targeted information to stay on top of key updates for their area of the business.

### Deliver Dynamic Business Communities With Group Spaces

While Personal Spaces are specific to each user, Oracle Online Business Communities, or Group Spaces, support discrete communities of users organized around an area of interest or a common goal. Group Spaces provide a wide range of Social Computing Services and tools, and enable teams to effectively concentrate their efforts on solving a concrete problem, which often includes: scheduling events, assigning tasks to individual

team members, contributing to wiki pages and announcements, linking related information, creating customized lists, and participating in discussion forums.

With little effort, you can create Group Space pages neatly tailored to the unique needs of your team or community, providing a central access point for group communication and project resources. To edit a Group Space page in Oracle WebCenter Spaces, simply click an Edit Page link to open the page in Oracle Composer and display the Business Dictionary for selecting the resources you need. Authorized members at all levels of technical expertise can easily add a variety of resources to a page. Add charts, reports, portlets, business applications, Social Computing Services, lists, links (to discussion forums, documents, or other pages), announcements, RSS feeds, gadgets, Web clips, and other ADF resources or views. Take a look at your result, and then save or cancel your changes. Combining relevant information of all types into the pages of a Group Space dedicated to a specific project creates a unique and useful enterprise mashup.

The screenshot shows the Oracle OpenWorld PM Group Space interface. The header includes the text "Your. Open. World." and event dates "SEPTEMBER 21-26, 2008 | MOSCONE CENTER | SAN FRANCISCO". The main content area is divided into several sections:

- Welcome to the Oracle Open World PM Group Space (SF & Japan)**: Includes a list of useful links such as "HQ Shuttle Bus Schedule", "Hotel Shuttle Bus Schedule", "Demoground FAQ", "External OpenWorld Page", "Content Catalog", "Mamott Capacity Chart", and "OOOW Presentation Template for Oracle Speakers".
- Announcements**: Contains text about "Demogrounds dress code" and "Registration and Badge Pickup".
- Events**: A calendar view for June 2009 showing events on various days, including "AJAWWorld - find speakers, demo" and "AJAWWorld - Make travel plans for AJAWWorld".
- Contact Details**: A table listing contact information for several individuals.

Name	Home Phone	Mobile Phone	Office Phone
Christian Hauser		+436648103526	+4313377526
Ajay Gandhi		650.464.6900	16506070617
Ann Fellman		612-669-1053	19525642161
Bob Fraser		000	4154027308
Christina Gibb		650.796.2779	650.506.4327
Ellen Savina		516.932-0920	631.665-2976

Figure 11: Oracle OpenWorld Group Space to track deliverables & speed deliveries

Enterprise teamwork is not limited to the functionality provided by these shared projects and dynamic business communities. Almost every successful project depends on users working together by sharing information. Most of the information resources that users plan to share originate from desktop tools, such as Microsoft Office. To ensure effective sharing of information in all of these environments, Oracle WebCenter Spaces delivers flexible integration through WebDAV, the Console for MS Sharepoint, RSS, and an extensible programming interface that is based on REST and Web services. Members of

a group space can add such resources as charts, reports, portlets, business applications, lists, links (to discussion forums, documents, or other pages), announcements, RSS feeds, gadgets, Web clips, and other ADF resources or task flows. For example:

- Sales people can work together on reports and planning documents linked to a CRM record.
- Accountants can input tasks from Microsoft Project and associate key deliverables with invoices from an ERP system.
- Managers can bring together data from enterprise systems with documents in Microsoft Office and securely share the results with customers and colleagues.
- Users can check-in documents, check-out documents, add personal tags, and send notification links directly.
- Users can manage documents and communities using Windows Explorer, create new project documents on the fly with Microsoft Office, and update each other through a team wiki.
- Users can share tags, or social bookmarks, to make sure they all learn from each other's unique experiences in finding the most efficient ways to get things done.

In many projects and communities, not all users are created equally. Often, there is a project manager who has the ability to delegate responsibilities for the items in the group space. Project managers also have the flexibility to restrict the use of different services if the capability is not required for the project. For example, a project manager may disable the built-in Announcements service, if all project updates are tracked in a wiki page. All the required tools are there to exercise complete control over available resources and their use to meet the team's business objectives.

### Use Templates to Create Group Spaces

In Oracle WebCenter Spaces, you can use Group Space Templates to enable your users to start quickly and get the most out of the system. Essential to large projects, often spanning multiple departments, is the need to keep each team consistent in their deliverables and contributions. When creating a Group Space, you can take advantage of an existing Group Space that already contains mashups of enterprise information. You simply save it as a Group Space Template to speed every other team's success and leverage all that you already know. For example, in annual budget reviews, you can configure a Group Space Template so that each department delivers the same standardized formats and presentations for review.

Alternatively, you can use any of the pre-built templates:

- **Group Project template:** Provides an optimal structure for supporting a core project team where members might come from different departments to work together toward reaching a common goal. The focus of a Group Project group space is to streamline the process of starting a new project, defining the project team, and executing on project deliverables.
- **Community of Interest template:** Provides an optimal structure for supporting communities of people who join together to communicate, create content, and share ideas to learn more about a subject area.
- **Blank template:** Provides an essentially unpopulated and unconfigured starting point for building a Group Space exactly to your specifications. When you create a Group Space using the Blank template, the result is a blank Home page. The rest is up to you!

Another important fact about Group Space Templates is that they allow third-party Partners and Companies to leverage their domain expertise to deliver starting points for all industries. Oracle's Partner Network is actively working with thousands of partners to deliver templates online for download and widespread usage.

### Managing Your Group Spaces Is Easy And Flexible

Group Space management is fully integrated into the Oracle WebCenter Spaces environment. For example, the person who creates a Group Space is automatically the moderator of the group space, and can grant any other user the appropriate privileges. Users assigned the group space moderator role can add and remove Group Space members, invite new members, create and update Group Space pages and look and feel (such as the Group Space name, description, colors and styles, and search keywords), and can manage the services available to members.

A Group Space moderator has several options for adding members: add members directly from the enterprise identity store, provide for self-registration, and allow users to request membership. In addition, Group Space moderators can delegate specific permissions of the different services to users. For example, a Group Space moderator might want every user to be able to participate in discussions or prevent users from uploading new documents unless they have specific privileges. The important point to remember is that the flexibility is available; however, no changes are required to get started.

### Centralized Administration For Oracle WebCenter Spaces

As an Oracle Fusion Middleware administrator, you can perform the complete range of security-sensitive administrative duties for all Oracle WebCenter components, as well as all installation, configuration, and audit tasks. All of these capabilities are integrated into a single Oracle Enterprise Manager Console. It's the only product available on the market

that allows for complete manageability across all usages of Social Computing Services, Dynamic Business Communities, and deployed applications. To administer and monitor the Oracle WebCenter Spaces component, the Oracle Fusion Middleware administrator can:

- Stop and start Oracle WebCenter Spaces
- Configure back-end services (such as mail servers, worklist connections, discussions server connections, mail server connections, instant messaging and presence connections, Oracle Secure Enterprise Search connections, and the database connection for group space events, links, lists, notes, and tags)
- Maintain external applications and data sources (such as content repositories, external applications, and portlet producers)
- Configure the identity store to allow for enterprise single sign-on
- Configure global options (such as SOA connection for group space subscription workflows, wiki services, and worklist items)
- Import and export group spaces and group space templates, or an entire Oracle WebCenter Spaces application, to enable back up or to move content between Oracle WebCenter applications and stage or production environments
- Use log files to identify and diagnose issues or problems
- Analyze the performance of Oracle WebCenter Spaces and monitor its current status through Oracle Enterprise Manager

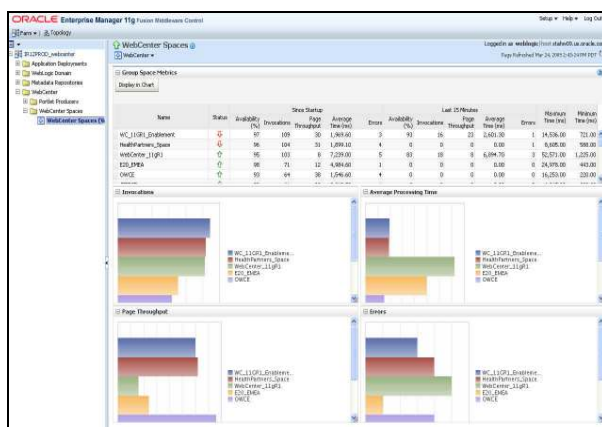


Figure 12: Oracle Enterprise Manager provides a single console to manage all Social Computing Services, team communities, Web applications, and enterprise portals.

As part of the delegated administration capabilities, within Oracle WebCenter Spaces the highest application privileges are given to the Oracle WebCenter Spaces administrator. To perform administration and monitoring tasks across all Personal Spaces and Group Spaces, the Oracle WebCenter Spaces administrator can:

- **Modify application-wide settings:** Name the application, customize the default look & feel, choose a default language, set up discussion forums and RSS news feeds, disable personal spaces, manage group space services, and much more
- **Manage users and roles:** Assign default roles, create custom roles, define role permissions, and manage user access and approval requirements
- **Manage Personal Pages:** View, edit, and delete personal pages, set up page defaults, copy pages, and manage page security
- **Manage Business Role Pages:** Create and manage pages specific to a particular business role, roll out pages to a common audience, and remove unnecessary pages
- **Maintain external application links:** Add, modify, and delete entries in the external application links list in the Application pane in the Sidebar
- **Manage Group Spaces and Group Space Templates:** Take a group space temporarily offline and bring it back online, close down or reactivate a group space, delete a group space or template, and publish or hide a group space template

## Oracle Composer with Oracle’s Business Dictionary

Oracle Composer is an innovative component that enables any application or portal to be customized or personalized after it has been deployed and is in use. Oracle Composer is designed to be easy to use—business users and end users can edit any page with a few simple clicks of the mouse. Oracle Composer runs in all modern browsers and provides a rich, dynamic way to edit JSF application and portal pages by selecting information and components from the Business Dictionary or Resource Catalog.

Software developers will be interested to learn how easy it is to add Oracle Composer to their applications and portals during development, without writing a single line of code. Because many applications require “portal-like” features, such as customization and personalization, Oracle Composer can simply be dragged and dropped onto a JSF page to enable this powerful capability.

## Unparalleled Layered Customizations: Oracle's Metadata Services

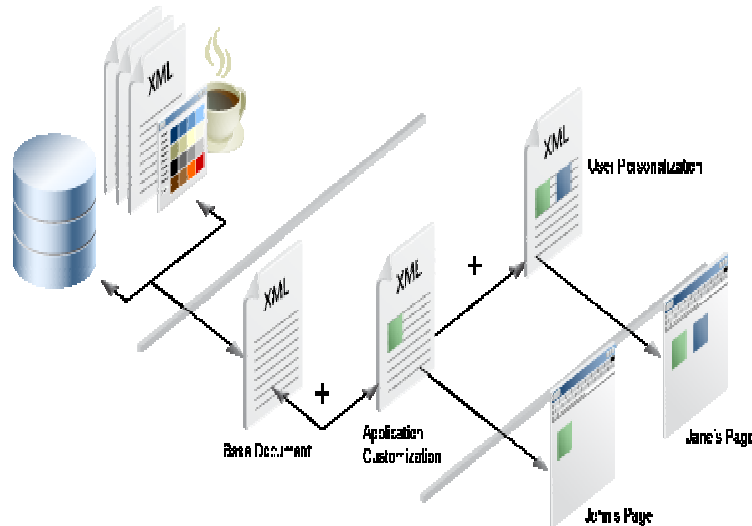


Figure 13: Layered Customizations through Metadata Services

**Customizations** change everyone's view of an application or portal and are typically required to "brand" a delivered application or portal for a specific customer or purpose. Customizations include simple changes such as inserting a logo or altering the colors to match those of your company. They can also involve adding items to a page, changing the layout of a page, altering a supplied process, and specifically tailoring the delivered application or portal to meet any business need. Oracle WebCenter Suite 11gR1 and Oracle Composer provide a flexible model for storing these customizations in the file system or directly into any database through Oracle's Metadata Services (MDS). For example, to store customizations in a database, Oracle Composer creates a copy, or *sandbox*, for pages as they are being edited. This sandbox is a temporary storage area to save a group of runtime page customizations before they are either saved and pushed to other users or discarded. In this way, others can preview and approve customizations before they are visible to all users.

Traditionally, customizations are stored as part of the application, and are lost when a patch or upgrade to the base application is deployed. With Oracle WebCenter Suite 11gR1, all base application definitions, customizations, and personalizations are stored in the Oracle Metadata Services (MDS) repository as a layer on top of the base application. This centralized metadata strategy facilitates the joining of design-time and runtime efforts into a single, complementary development lifecycle. As a result, you can develop and deploy new versions of applications without losing the customizations or personalizations that were added over the life of the product. When you add Oracle Composer components to a page, information is automatically stored to and retrieved

from MDS, alleviating the need to spend time writing logic to manage customizations and personalizations.

**Personalizations** change your view—and only your view—of a portal or application page. Other users are not affected by the changes you make to a page. Many web sites and social services on the Internet today provide a means for users to create their own "personal" page. Users can decide what is important to them and organize information so that it is quick and easy to find. Oracle Composer enables personalizations by displaying information from Oracle's Business Dictionary or Resource Catalog in a role-based view, so that users see only components relevant to them. For example, to personalize a page a sales representative might select a list of current customers, a list of current leads or sales opportunities, and a list of past customers and products up for renewal. A customer support representative might see only a subset of these components in his or her view of the Resource Catalog. The important point is that individuals can tailor the page to add any combination of components to their pages whenever they want or need them, without affecting everyone else's view of the page.

Oracle Composer has been leveraged extensively inside Oracle WebCenter Spaces to enable users to customize and personalize Personal and Group Spaces. The Oracle WebCenter Spaces application provides a working example of how end users can take an active role in managing and altering their work environment to match their specific needs and requirements.

## Oracle WebCenter Social Computing Services

Oracle WebCenter Suite 11g exposes Web 2.0 services and personal productivity features through a comprehensive set of Social Computing Services that make integration easy with enterprise information and business processes. Integration means you can use these services together (for example, you can add an Instant Messaging and Presence link to a discussion forum to talk with a product expert directly from a forum topic), manage them effectively, and model relationships between users and information to discover new experts and new ways to improve your business' performance.

All WebCenter Suite 11gR1 Social Computing Services have a complete set of ready-to-use task flows or portlets to speed their adoption, making developers and end users immediately productive. For example, the Documents service is exposed through the Documents task flow, the Document List Viewer task flow, and the Recent Document task flow. You can add any of these task flows to an application or portal when you are building it, and users can add these service task flows to a deployed application or portal with Oracle Composer.

If the pre-built task flows do not meet business requirements, developers have two additional choices:

1. Directly customize the pre-built task flows to match the requirements. These customizations are created inside JDeveloper and provide developers with a productive and fast way to deliver their required functionality.
2. Use the pre-built data controls, and bind their own user interface to meet the requirements, without having to build the back-end integration.

WebCenter Services are built to industry standards, such as IMAP for e-mail, JSR 116 for presence, JCR 1.0 for content integration, JSR 168, JSR 286, WSRP 1.0 and 2.0, JSR 301, and many others. The Social Computing Service tasks flows have an adapter-based model for easy connection to any of the most popular back-end systems.

For ease of understanding, we've separated the WebCenter Social Computing Services into two categories: social computing services and personal productivity services.

### Empower Users With WebCenter's Social Computing Services

At the heart of Oracle WebCenter is the concept of group participation and social computing, linking users and services together in useful ways. For example:

- Sales people can contribute to reports and planning documents linked to a CRM record.
- Managers can bring together data from enterprise systems with documents in Microsoft Office, and securely share the results with customers and colleagues.
- Users can manage documents and projects in a group space, create and edit project documents in a wiki, and send related announcements to group members.

The services that support these group concepts are:

- **Announcements service:** Offers an effective group communication mechanism for important information around activities, events, processes, and overall updates.
- **Discussions service:** Enables community discussions on a set of topics, facilitates quick resolution of issues, and provides a searchable knowledge base. In addition, there are many different Task Flows or portlets for hot topics, favorite or watched topics, and more recently updated topics. The Discussions service is delivered with a comprehensive backend discussion server that handles many advanced features, such as profanity filters, e-mail/ mailing list integration, and post and poster banning.
- **Blog (Web log) service:** Provides the means for an individual or a community to share personal insights with online audiences. This service supports two types of blogs: personal blogs for individual users, and community blogs that enable members to share their views on a particular topic.

- **Instant Messaging and Presence service:** Enables users to see who in their community is online and provides instant access to interaction options, such as sending an instant message, writing an e-mail, and displaying a peer's profile. There is also a task flow or portlet that displays the user's list of buddies. The Presence service also is available as a tag that can be added to any page to quickly "activate" any username on the screen. It works directly with Oracle Presence and other SIP-based platforms like Microsoft Office Communications Server. In addition, you can configure the Presence service to leverage a PSTN gateway to deliver "Click-to-Dial" capabilities. Users can see a person's name, click on the presence icon, then select "Click to Dial" to initiate a VOIP, land line, or cell phone call.
- **Wiki service:** Provides a means of working simultaneously on documents and sharing ideas, either in the context of communities or as individuals. Use wiki syntax directly, or edit wiki pages as you would with any word processor. All changes and versions are tracked.
- **Document Library service:** Enables users to display and manage their documents and files in a content repository. The Document Library Task Flow or portlet surfaces many features of the underlying repository including versioning of content items, tagging items, checking items in and out, linking content to other services, and connecting with the author of the document directly. The Document Library service leverages JCR and third-party adapters to connect to different backend repositories. As part of Oracle WebCenter Suite 11gR1, an embedded use of Oracle's Content Management server is included and is delivered as part of the integrated install of Oracle WebCenter.
- **Events service:** Provides group calendars to enable users to schedule meetings, appointments, and any other type of team event. Additionally, a dedicated Events page is available to every group space where the moderator has enabled the Events service.
- **Links service:** Provides an easy way for users to share their knowledge with others. Often, there are many tasks that require users to remember the relationship between different items. For example, an employee might have to remember where to file their expense reports and where the document describing the accounting rules for expense reports is stored. Using Links, users can connect items together. In this way, they do not have to rely on memory. Just as important, new users receive the benefit of their work, thus saving significant amounts of time. Developers can add the Links service to any application or portal as a backend service. The Task Flows or portlets provide a rich user experience that enables users to manage their links.
- **Lists service:** Provides a means for users to create and manage all types of lists. This is an extremely powerful capability for keeping track of meeting action items, open issues, new product or project ideas, project status, and more. Lists support specific types of data, including a person, string, number, Boolean, and datetime. Data-types

take full advantage of the richness of the environment, including built-in values validation and presence. For example, when a user's name shows up in a list, it is automatically enabled with the Presence service.

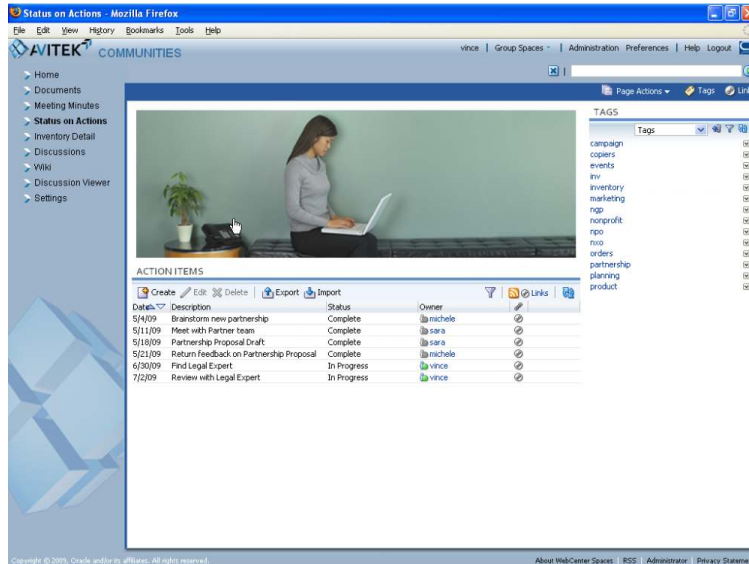


Figure 14: Lists can be used for tracking open issues, team tasks, and project status, for example

- Tags service:** Provides a way for users to mark items so that they can find them quickly when required. Additionally, tagging enables users to find items based on their own labels instead of a corporate taxonomy. The capability to tag items delivers a better organization of information based on how users really access and label the items, often called a *folksonomy*. Since tags are directly integrated with Searching, users can immediately find what they need using personally relevant search terms. The Tags service includes Task Flows or portlets for creating and maintaining a tag, deciding if the tag is shared or private, favorite tags, tags used by others, and a Tag Cloud view. Again, you can add the Tags service to any application or portal to enable this powerful new way of sharing information and knowledge.

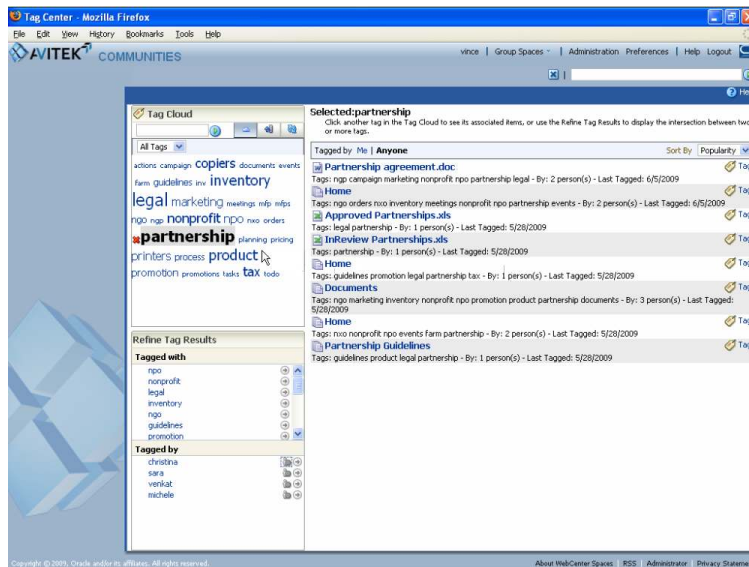


Figure 15: Tag Center provides access to experts and collective intelligence within a single screen

- **Activity Graphs service:** Enables tracking of any kind of activity that the user performs in order to influence results and recommendations from other services. For example, most Social Computing sites today provides a means for users to post their own information about their personal activities, accomplishments, thoughts, and friends. However, when used in a business context the work that a user does (posting documents, resolving customer escalations, winning a sales bid, developing a new product or service, etc.) must influence the user's expertise as seen by other users. The Activity Graphs service provides an extensible engine to log, track, analyze, and recommend a user's items and actions that the person might find helpful. For example, if you wanted to resolve a specific customer complaint, then you would like to find another person in the organization who has dealt with a similar problem. The Activity Graphs services allows for these experts to be identified and surfaced to any user's network.
- **People Connections service:** Enables users to quickly assemble their business networks. The People Connections service includes Task Flows or portlets that show off a user's profile, visualize the user's connections list or network, display all the invitations pending and accepted from others, deliver a whiteboard (often called a "wall") to project out relevant information about one's role or self, and provide a means to monitor and manage received and given kudos. As part of the Activity Graphs service, the People Connections service provides a view of these activity streams and includes filters for the user to determine the type of activities that are of interest.

Together these two services make Social Computing services significantly more valuable within and across enterprises.

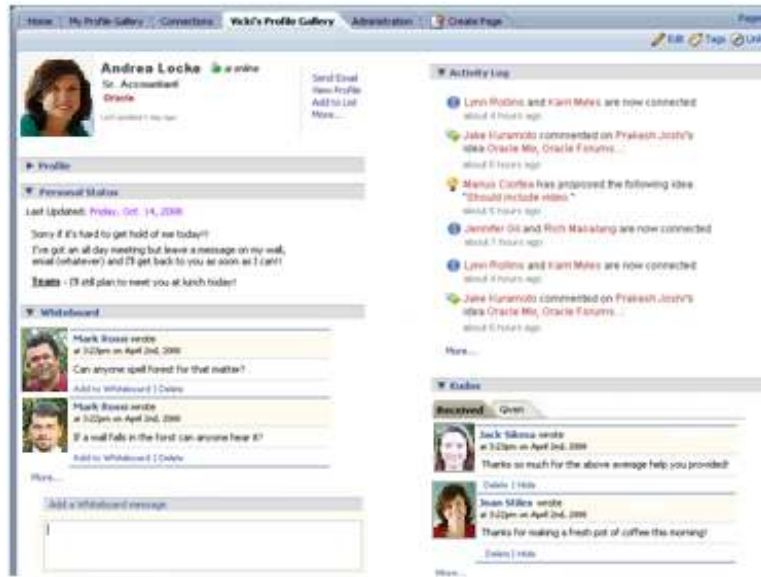


Figure 16: Social Networking features can now be embedded directly into any portal or application.

- Oracle WebCenter Analytics:** Enables users to create usage reports for any custom application or portal. Use Oracle WebCenter Analytics to determine the most important pages of the deployed application or portal, the most used content items, the most active Group Spaces, and the number of users visiting these different sites and services. Oracle WebCenter Analytics additionally provides recommendations to make the Activity Graph service even more valuable. Oracle WebCenter Analytics delivers the type of information business users require to determine how they allocate their resources to enhance and improve the most important areas of the site.
- Oracle WebCenter Ensemble:** Enables the creation of mashable components that you can surface through the Oracle Business Dictionary or Resource Catalog. Oracle WebCenter Ensemble is a mashup engine that provides a light proxy and security management system that facilitates users adding portlets as UI widgets or gadgets to any page or site and on any platform, integrating external content into any portal, and enabling mashups from just about any source.

## Services to Enhance Personal Productivity

Many Oracle WebCenter Social Computing Services are specifically designed to work with standard personal productivity tools, offering functionality focused on the individual rather than the group. These services include:

- **Mail service:** Exposes e-mails from any IMAP-compliant mail server and enables users to perform basic e-mail interactions, such as view, read, create, and delete messages, send attachments, and reply to or forward an existing e-mail. Often, emails contain a list of people working together to resolve an open issue or complete a project. A user can create a Group Space that leverages the message's list of recipients for its membership. In this way, users focus on the task at hand and not on how they create an area to manage the task.
- **Worklist service:** Surfaces business processes in the context of the current business scenario and enables users to view and take action on all tasks and notifications from a central place.
- **Notes service:** Enables users to track and manage simple personal notes by providing a means of "jotting down" and retaining quick bits of personal information. The Notes service exposes its features in the Notes panel in the WebCenter Spaces application Sidebar and in the Notes task flow or portlet.
- **Recent Activities service:** Enables users to quickly view the most recent documents, discussions, announcements, feeds, and other actions happening in Group Spaces of which they are a member. In one location, users can get an aggregated view of items they want to review and work to improve.
- **RSS (Really Simple Syndication) service:** Exposes the content of many different Web sites in a news feed viewer and provides an RSS feed for others to consume as well. It provides a quick way of publishing internal information out and consuming external information from many sources to get an aggregated view of what is occurring around the task, process, or activity that is being tracked.
- **Search service:** Assists users with locating data, documents, experts, and information that are stored anywhere within the enterprise. Oracle Secure Enterprise Search (SES) is integrated with this service.

## Conclusion

Oracle WebCenter Suite 11g is the only complete, open, and integrated set of components that leverage the full power of the Oracle Fusion Middleware foundation. It delivers a modern development framework in **Oracle WebCenter Framework** that provides advanced and differentiated features to speed delivery of Process Portals,

Business Intelligence Dashboards, Dynamic Online Communities that leverage Social Computing Services, and modern Business Applications. **Oracle Composer along with Oracle's Business Dictionary** provides unmatched role-based facilities for enabling business users to seamlessly unify many corporate information assets to speed personalization and customization of their Executive Cockpits. **Oracle WebCenter Spaces** delivers Dynamic Online Communities that orchestrate a complete suite of **Social Computing Services** to enable organizations to finally tap into the critical thinkers within and across their organizations and leverage their resources like never before without having to wait for IT to deliver them a usable solution.



Oracle WebCenter Suite 11g  
New Features White Paper  
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