

## **Oracle® Fusion Middleware**

Planning a Portal with Oracle WebCenter Portal

11g Release 1 (11.1.1.8.0)

**E35813-02**

January 2014

Provides a starting point for portal development projects. Introduces portals and portal use cases at a high level, describes how to pick an appropriate development approach, and discusses the kinds of development tasks you'll need to plan for.

Oracle Fusion Middleware Planning a Portal with Oracle WebCenter Portal, 11g Release 1 (11.1.1.8.0)

E35813-02

Copyright © 2013, 2014 Oracle and/or its affiliates. All rights reserved.

Primary Author: Rosie Harvey

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:

U.S. GOVERNMENT RIGHTS Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, duplication, disclosure, modification, and adaptation shall be subject to the restrictions and license terms set forth in the applicable Government contract, and, to the extent applicable by the terms of the Government contract, the additional rights set forth in FAR 52.227-19, Commercial Computer Software License (December 2007). Oracle America, Inc., 500 Oracle Parkway, Redwood City, CA 94065.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software and documentation may provide access to or information on content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

---

---

# Contents

<b>Preface</b> .....	v
Audience .....	v
Documentation Accessibility .....	v
Related Documents .....	v
Conventions .....	vi
<b>1 Planning A Portal with Oracle WebCenter Portal</b>	
1.1 Why a Planning Guide? .....	1-1
1.2 What is a Portal? .....	1-2
1.3 Understanding Oracle WebCenter Portal's Key Features .....	1-4
1.3.1 Portal Security .....	1-4
1.3.2 Integration with Other Oracle Products and Applications .....	1-4
1.3.3 Integration with Oracle WebCenter Content .....	1-4
1.3.4 Integrating Search .....	1-5
1.3.5 Integrating Tools and Services into the Portal .....	1-5
1.3.6 Device Support .....	1-5
1.3.7 Support for Portlets .....	1-6
1.3.8 Support for Pagelets .....	1-6
1.3.9 Localized Content and Language Support .....	1-6
1.3.10 Portal Life Cycle .....	1-6
1.3.11 Round-trip Asset Development .....	1-7
1.4 Common Portal Use Cases .....	1-7
1.4.1 Corporate Intranet and Extranet Portals .....	1-7
1.4.2 Building a Team Collaboration Portal .....	1-9
1.5 Getting Oracle WebCenter Portal Up and Running .....	1-10
1.6 Building Your Portal Team: Who's Who? .....	1-10
1.7 Navigating the Oracle WebCenter Portal Documentation Set .....	1-11
1.8 Choosing a Development Approach for Your Portal .....	1-12
1.8.1 Considering the Portal Builder Approach .....	1-12
1.8.1.1 Managing Portal Life Cycle With Portal Builder .....	1-13
1.8.1.2 Round-Trip Asset Development With Portal Builder .....	1-14
1.8.1.3 Bring Content Into Your Portal with Portal Builder .....	1-14
1.8.1.4 Portal Builder Administration .....	1-16
1.8.2 Considering the Portal Framework Approach .....	1-16
1.8.2.1 Managing Portal Life Cycle with Portal Framework .....	1-17

1.8.2.2	Round-Trip Asset Development with Portal Framework .....	1-18
1.8.2.3	Bring Content into Your Portal with Portal Framework .....	1-18
1.8.2.4	Portal Framework Administration .....	1-19
1.8.3	Comparing Portal Builder and Portal Framework Approaches .....	1-20
1.8.4	Overview of General Portal-Building Tasks .....	1-23
1.9	Planning for Tools and Services .....	1-25
1.10	Planning for a Consistent Look and Feel .....	1-28
1.11	What You See Depends on Who You Are .....	1-31
1.12	Understanding System and Portal Administrator Roles .....	1-32
1.13	Portal Planning Summary .....	1-33

---

---

# Preface

This guide provides a starting point for portal development projects. It introduces portals and portal use cases at a high level, describes how to pick the best development approach, and discusses the kinds of development tasks you'll need to plan for.

## Audience

This document is intended for developers, application specialists, and advanced knowledge workers who plan and build portals. For a complete description of these roles, and other WebCenter Portal personas, refer to [Section 1.6, "Building Your Portal Team: Who's Who?."](#)

## Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

### Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

## Related Documents

For more information, see the following documents in the Oracle WebCenter Portal documentation set:

- *Oracle Fusion Middleware Using Oracle WebCenter Portal*
- *Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal*
- *Oracle Fusion Middleware Administering Oracle WebCenter Portal*
- *Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper*
- *Oracle Fusion Middleware Installation Guide for Oracle WebCenter Portal*

## Conventions

The following text conventions are used in this document:

<b>Convention</b>	<b>Meaning</b>
<b>boldface</b>	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

---

---

# Planning A Portal with Oracle WebCenter Portal

This guide provides a starting point for portal development projects. It introduces portals and portal use cases at a high level, describes how to pick an appropriate development approach, and discusses the kinds of development tasks you'll need to plan for. Wherever possible, this guide provides links to background information and implementation details in the Oracle WebCenter Portal documentation set.

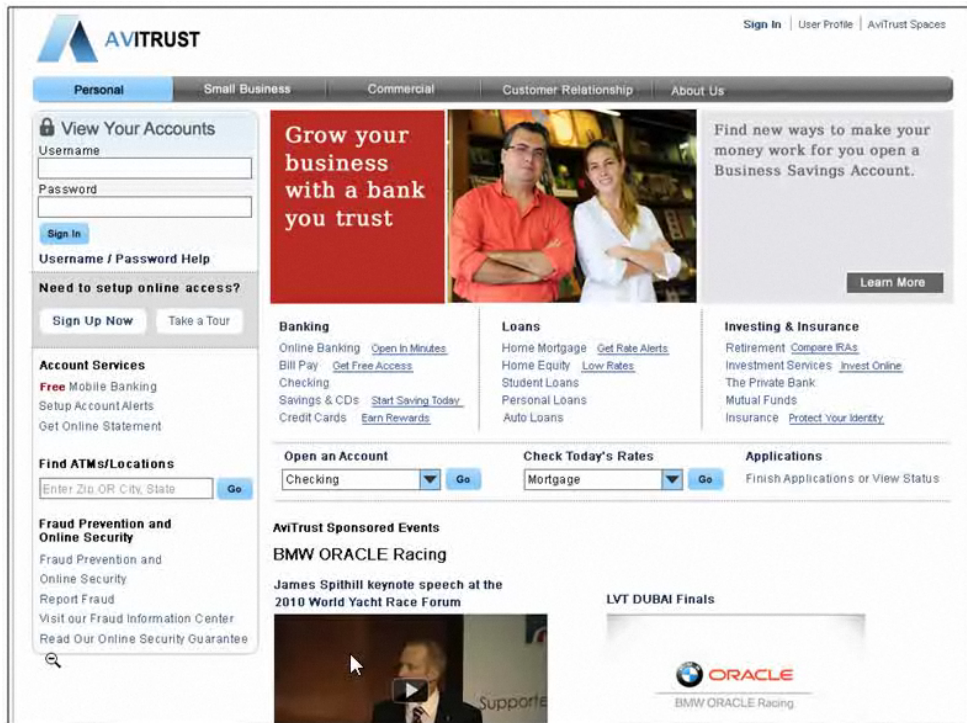
- [Section 1.1, "Why a Planning Guide?"](#)
- [Section 1.2, "What is a Portal?"](#)
- [Section 1.3, "Understanding Oracle WebCenter Portal's Key Features"](#)
- [Section 1.4, "Common Portal Use Cases"](#)
- [Section 1.5, "Getting Oracle WebCenter Portal Up and Running"](#)
- [Section 1.6, "Building Your Portal Team: Who's Who?"](#)
- [Section 1.7, "Navigating the Oracle WebCenter Portal Documentation Set"](#)
- [Section 1.8, "Choosing a Development Approach for Your Portal"](#)
- [Section 1.9, "Planning for Tools and Services"](#)
- [Section 1.10, "Planning for a Consistent Look and Feel"](#)
- [Section 1.11, "What You See Depends on Who You Are"](#)
- [Section 1.12, "Understanding System and Portal Administrator Roles"](#)
- [Section 1.13, "Portal Planning Summary"](#)

## 1.1 Why a Planning Guide?

Companies use Oracle WebCenter Portal to build enterprise-scale intranet and extranet portals. Portals built with Oracle WebCenter Portal commonly support thousands of users who create, update, and access content and data from multiple back-end sources. From the user's perspective, the integration is seamless.

[Figure 1-1](#) shows the basic structure of a portal. It includes branding in the header region with a company logo and a **Sign In** link, navigation areas, content areas, and so on.

**Figure 1–1 Sample Portal Built with Oracle WebCenter Portal**



An important purpose for this planning guide is to help you make sound and informed decisions early in the planning process. As a portal architect or designer, your first challenge is to choose the best fundamental development approach for you. As you will see, this choice will guide the overall direction and implementation of your portal project. You can choose to take a browser-centric approach with *Portal Builder* or a JDeveloper-centric approach with *WebCenter Portal Framework*. These approaches are discussed later in this guide in [Section 1.8, "Choosing a Development Approach for Your Portal."](#)

To begin, let's sort through some of the features that are common to portals, including portals built with Oracle WebCenter Portal, and the many ways portals benefit the enterprise. If you're familiar with portal technology and use cases, skip ahead to [Section 1.5, "Getting Oracle WebCenter Portal Up and Running."](#)

## 1.2 What is a Portal?

Portals offer secure access to data, content, business applications, and services. Typically, portals present personalized information and content, and a unified view of applications and information aggregated from multiple back-end sources. Portals may also serve as a collaboration environment for users, whether they are employees, team members, customers, or business partners.





Businesses find many creative ways to use portals:

- Employees log into a company intranet portal to book travel, update payroll and tax forms, submit vacation requests, make hardware service requests, and perform many routine tasks.
- Human Resources managers add content to the portal for employee training sessions, important announcements, information targeted to new hires, insurance plan updates, and so on.
- Business partners and suppliers log into an extranet portal to assess inventory and manage orders.

In these cases, the portal can be integrated with Oracle business applications like Oracle Enterprise Suite or Fusion Middleware components like Oracle BPM and Oracle Business Intelligence.

Much of a portal's inherent value lies in the way it aggregates data, content, business applications, and services into a unified user experience, whether viewed in a browser, smart phone, or tablet.



WebCenter Portal users may be unaware that the data, content, and applications surfaced in a portal often come from entirely different back-end sources. Furthermore, through portal-driven events, these aggregated components can interact with each other within the browser. To the user, everything is presented in a seamless, integrated interface.

## 1.3 Understanding Oracle WebCenter Portal's Key Features

Oracle WebCenter Portal provides an open, secure, standards-based, and extensible framework that allows you to rapidly create and deploy portals. In this section, we'll briefly describe some of Oracle WebCenter Portal's key features.

### 1.3.1 Portal Security

When you create a new portal, you can set certain security policies that define who can access it. Typically, portals require users to authenticate themselves through a log in page. Access to portal pages and components can be specified through delegated administration. Delegated administration provides a mechanism for securing portal resources based on user roles. For example, you can allow users in one role (managers, for instance) to access all portal features, but hide certain features from users in another role (employees, for instance).

For more information, see:

- "Understanding Security" in *Oracle Fusion Middleware Administering Oracle WebCenter Portal*.
- "Administering Security in a Portal" in *Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal*
- "Granting Users Access to a Portal" in *Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal*.

We discuss security in more detail in this planning guide in [Section 1.11, "What You See Depends on Who You Are"](#)

### 1.3.2 Integration with Other Oracle Products and Applications

To provide a streamlined user experience, Oracle WebCenter Portal is integrated and certified with many Oracle technologies and applications.

Other technologies that can be used with or integrated into a portal are Oracle Fusion Applications, Oracle Identity Management Suite, Oracle SOA Suite, Oracle Enterprise Manager, and Oracle eBusiness Suite, as well as PeopleSoft, Siebel, and JD Edwards enterprise applications.

For more information, see "Integrating Other Oracle Applications" in *Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper*.

### 1.3.3 Integration with Oracle WebCenter Content

Oracle WebCenter Portal integrates with Oracle WebCenter Content, which provides a flexible, secure, centralized, web-based repository for managing all phases of the content life cycle: from creation and approval to publishing, searching, expiration, and archival or disposition.

When authorized users upload content to a portal, for example, the content can be stored and managed in Oracle WebCenter Content, which can store multiple versions, be used for archiving, manage approval processes and workflows, and create different renderings.

Oracle WebCenter Portal's Content Presenter feature enables you to precisely customize the selection and presentation of content in a portal. Content Presenter connects to and is closely integrated with Oracle WebCenter Content.

We discuss content integration in more detail in [Section 1.8.1.3, "Bring Content Into Your Portal with Portal Builder"](#) and [Section 1.8.2.3, "Bring Content into Your Portal with Portal Framework."](#)

For more information, see:

- "Managing Content Repositories" in *Oracle Fusion Middleware Administering Oracle WebCenter Portal*
- "Introduction to Working with Content" in *Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal*
- "Publishing Content Using Content Presenter" in *Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal*

### 1.3.4 Integrating Search

Oracle Secure Enterprise Search (Oracle SES) is the default search platform for WebCenter Portal. Oracle SES provides excellent scalability and performance. In addition, it provides unified ranking results and search of external repositories.

For more information, see:

- "Adding Search to a Portal" in *Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal*
- "Integrating Search" in *Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper*
- "Managing Oracle Secure Enterprise Search in WebCenter Portal" in *Oracle Fusion Middleware Administering Oracle WebCenter Portal*

### 1.3.5 Integrating Tools and Services into the Portal

Oracle WebCenter Portal includes a wide range of tools and services that you can integrate into the portal. Some of these tools and services include document and content management, discussion forums, wikis, blogs, tagging, activity tracking, personalization, polls, and more.

In most cases, some back-end configuration is required. For example, to use discussions in a portal, the discussions server must be running and a back-end connection to the server configured. These implementation tasks are described in detail in the Oracle WebCenter Portal documentation.

For a good overview of tools and services and links to deeper background information, see "Introduction to Portal Tools and Services" in *Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal*.

We discuss tools and service integration in more detail in [Section 1.9, "Planning for Tools and Services."](#)

### 1.3.6 Device Support

Out-of-the-box, WebCenter Portal is supported on a number of popular browsers, smart phones, and tablets. In addition, WebCenter Portal allows you to add support for these devices through the use of mobile device templates that can be developed and deployed from Portal Builder.

For more information, see the "Administering Device Settings" chapter in *Oracle Fusion Middleware Administering Oracle WebCenter Portal*.

### 1.3.7 Support for Portlets

Standards-based portlets provide a means of presenting data from multiple sources in a meaningful and related way. Portlets can display excerpts of other web sites, generate summaries of key information, perform searches, and access assembled collections of information from a variety of data sources. Because several different portlets can be placed on a single page, users benefit from a single-source experience even though, in reality, the content may be derived from multiple sources.

For more information, see:

- "Introduction to Portlets" in *Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper*
- "Managing Portlet Producers" in *Oracle Fusion Middleware Administering Oracle WebCenter Portal*

### 1.3.8 Support for Pagelets

A pagelet is a reusable user interface component. Any HTML fragment can be a pagelet, but pagelet developers can also write pagelets that are parameterized and configurable, to dynamically interact with other pagelets, and respond to user input. Pagelets can be run on any Web page, including within a portal or other Web application. Pagelets can be used to expose platform-specific portlets in other Web environments. Oracle WebCenter Portal's Pagelet Producer provides a collection of useful tools and features that facilitate dynamic pagelet development.

For more information, see:

- "Creating Pagelets with Pagelet Producer" chapter in *Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper*
- "Managing the Pagelet Producer" chapter in *Oracle Fusion Middleware Administering Oracle WebCenter Portal*

### 1.3.9 Localized Content and Language Support

If your portal will be viewed by users in more than one country, you can configure it to display localized content based on the user's selected language and locale.

Additionally, locale selection applies special formatting considerations applicable to the selected locale. For example, those considerations may include whether information is typically viewed from left to right or right to left, how numbers are depicted (such as monetary information), and so on.

For more information, see "Choosing a Default Display Language" in *Oracle Fusion Middleware Administering Oracle WebCenter Portal*.

### 1.3.10 Portal Life Cycle

The portal life cycle refers to the path a portal takes from development through production. The phases of the life cycle typically include development, testing, staging, and production. Each phase requires certain tasks to be performed. Some tasks are performed only once in a given environment, like setting up a content repository. Others are performed more frequently, like updating content.

Usually, you will install and configure back-end services required by your portal and applications used by the portal in each environment. For example, the staging environment might include a dedicated content server, such as Oracle WebCenter Content as well as a dedicated portlet producer server (`WC_Portlet`), a utilities server

for analytics, activity graph, data integration (WC\_Uilities), and a collaboration server for discussions and announcements (WC\_Collaboration). The staging server is often maintained as a mirror of the production site. For more information and detailed diagrams, see, the "Oracle WebCenter Portal Topology" section in *Oracle Fusion Middleware Administering Oracle WebCenter Portal*.

Part of your portal planning process is to understand how to move portals, as well as their assets, data, and content from one environment to another. Later in this guide you can read about Portal Builder and Portal Framework approaches to portal life cycle in [Section 1.8.1.1, "Managing Portal Life Cycle With Portal Builder"](#) and [Section 1.8.2.1, "Managing Portal Life Cycle with Portal Framework"](#).

### 1.3.11 Round-trip Asset Development

Round-trip development refers to features and techniques that allow you to retrieve portal assets, such as skins and page templates, from a deployed, runtime portal back to JDeveloper for maintenance or enhancement. After modifying an asset in JDeveloper, you can upload the asset back to the deployed portal. Round-trip development features provide a simple, convenient way to modify portal assets without redeploying the entire application.

You can find out how Portal Builder and Portal Framework support round trip development later in [Section 1.8.1.2, "Round-Trip Asset Development With Portal Builder"](#) and [Section 1.8.2.2, "Round-Trip Asset Development with Portal Framework."](#)

## 1.4 Common Portal Use Cases

Many companies use Oracle WebCenter Portal to develop these basic types of portals:

- Intranet portals used for collaboration, employee self-service, and company communication.
- Extranet portals used by customers and partners for self-service and support.
- Team collaboration portals that allow users to share documents and content, track activity, and engage in discussions.

Let's look at some of the basic requirements for these kinds of portals in more detail.

### 1.4.1 Corporate Intranet and Extranet Portals

Intranet portals allow users within an organization to collaborate, access critical information, and obtain self-service securely. There are many applications for an intranet portal. Some of them include:

- A self-service portal allows employees to update time cards, request vacation, complete performance appraisals, and view benefit information.
- Company-wide information or announcements are made available to all users of the portal.
- Teams collaborate around projects and programs, sharing documents and tracking activities.

An extranet portal extends outside the organization and provides services targeted to customers and vendors. Some extranet use cases include:

- Allow authorized users to log in and access the portal's features. For example, vendors might access the site to learn about bidding opportunities or status. Customers can purchase products, view billing histories, or request support.

- Deliver custom application features delivered to the portal as portlets, business mashups, or task flows.
- Present a consistent look and feel to users and emphasize corporate branding. Customer-specific branding may be required.

Typical requirements of intranet and extranet portals include:

- Require that resources are secured and only authorized users can access the resources. See [Section 1.11, "What You See Depends on Who You Are"](#)
- Require well-defined methods for posting and updating content. See [Section 1.8.1.3, "Bring Content Into Your Portal with Portal Builder"](#) and [Section 1.8.2.3, "Bring Content into Your Portal with Portal Framework."](#)
- Require consistent branding and look and feel. See [Section 1.10, "Planning for a Consistent Look and Feel."](#)
- Require access to applications from multiple sources that may be provided through out-of-the-box or custom components like portlets, task flows, and mashups; collaboration and workflow features. See [Section 1.3.2, "Integration with Other Oracle Products and Applications"](#) and [Section 1.9, "Planning for Tools and Services."](#)
- Require secure access to applications from multiple sources (single sign-on). See [Section 1.11, "What You See Depends on Who You Are."](#)

All of these requirements and many others can be achieved with WebCenter Portal.

The skill sets required to build these portals depends on many factors. Here's a general list of skill sets that are typically required for these types of portals. You may wish to review [Section 1.6, "Building Your Portal Team: Who's Who?,"](#) for an introduction to the portal team roles discussed here:

- Application specialists build portals using browser-based tools.  
Alternatively, developers create portal applications in JDeveloper (depending on the approach you take, as explained in [Section 1.8, "Choosing a Development Approach for Your Portal."](#))
- Knowledge workers add and maintain content on a daily basis.
- Application specialists integrate back-end applications into the portal.
- System administrators manage portal deployments, wire-up back-end connections to applications, databases, and content repositories, and manage security for the portal at a global level.
- Web designers work on the consistent look and feel and branding of the portal.
- Developers may create Portal Framework applications, depending on the development approach selected. Developers use JDeveloper to develop and deploy custom components. See [Section 1.8, "Choosing a Development Approach for Your Portal."](#)

#### **For More Information**

- [Section 1.6, "Building Your Portal Team: Who's Who?"](#)
- [Section 1.8, "Choosing a Development Approach for Your Portal"](#)
- "Introduction to Building Portals with WebCenter Portal" in Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal

- "Understanding WebCenter Portal Framework Applications" in Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper
- "Developing Components for WebCenter Portal Using JDeveloper" in Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper

## 1.4.2 Building a Team Collaboration Portal

This type of portal is typically used by groups within a company who wish to share and collaborate on documents and other information.

- Use a team portal for collaboration around a specific project or to present training content for all employees.
- You can make a team portal publicly available to users within the company or restricted to authorized users only, typically the members of the team or other invited individuals.
- Team portals may allow users to post, view, and edit documents.
- The collaboration portal might also include activity tracking, so users can see when a document was added or changed, among other activities.

Key features of team collaboration portals include:

- Team portals do not require any IT effort for creating, provisioning, and maintaining them. They are maintained by knowledge workers and application specialists primarily. See [Section 1.6, "Building Your Portal Team: Who's Who?"](#) for information on these and other portal team roles.
- Portal Builder allows multiple team portals to be hosted within one WebCenter Portal instance. See [Section 1.8.1, "Considering the Portal Builder Approach."](#)
- Ability to share documents and use social components like activity streams, wikis, blogs, and so on. See [Section 1.9, "Planning for Tools and Services."](#)
- The system administrator delegates administration rights so that team leaders and other individuals can manage their own team portals, reducing the cost to the IT department and enabling them to serve large numbers of users with minimal support overhead. See also [Section 1.11, "What You See Depends on Who You Are."](#)

Typical skill sets include the following. You may wish to review [Section 1.6, "Building Your Portal Team: Who's Who?"](#) for an introduction to the portal team roles discussed here:

- Knowledge workers take a leading role in building and maintaining the portal using browser-based tools.
- Application specialists integrate back-end applications into the portal, as needed.
- Web designers work on the consistent look and feel and branding of the portal.
- System administrators manage portal deployments, wire-up back-end connections to applications, databases, and content repositories, and manage security for the portal at a global level.
- Developers using JDeveloper build custom components that are made available to knowledge workers and others who are building and maintaining the portal.



All of these portal team roles are discussed in [Section 1.6, "Building Your Portal Team: Who's Who?"](#) See [Section 1.8, "Choosing a Development Approach for Your Portal"](#) to see how the development approach you choose influences these key roles.

### **For More Information**

See *Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal* for information on creating and managing portals.

All portal users can benefit from the guide *Oracle Fusion Middleware Using Oracle WebCenter Portal*, which focuses how to use the features of WebCenter Portal.

## **1.5 Getting Oracle WebCenter Portal Up and Running**

This section links to documents on installing and configuring Oracle WebCenter Portal. Typically, these activities are handled by a system administrator. For detailed information, see:

- *Oracle WebCenter Portal Installation and Configuration Roadmap for Windows*
- *Oracle Fusion Middleware Installation Guide for Oracle WebCenter Portal*
- *Oracle Fusion Middleware Quick Installation Guide for Oracle WebCenter Portal*
- *Oracle Fusion Middleware Patching Guide*

Oracle WebCenter Portal requires a certain amount of administrative configuration after the installation is completed. The *Oracle Fusion Middleware Administering Oracle WebCenter Portal* explains everything you'll need to know about setting up, running, and administering Oracle WebCenter Portal's out-of-the-box portal application "WebCenter Portal", as well as any portal applications that you build using JDeveloper. For more information, see:

- "Getting WebCenter Portal Up and Running" in *Oracle Fusion Middleware Administering Oracle WebCenter Portal*
- "Getting Portal Framework Applications Up and Running" in *Oracle Fusion Middleware Administering Oracle WebCenter Portal*

## **1.6 Building Your Portal Team: Who's Who?**

The WebCenter Portal product and documentation have been carefully designed around *user personas*. The idea is that certain users perform specific kinds of tasks, generally, depending on their role. An understanding of these personas, and the kinds of tasks they typically perform, may help guide you in building a team that will create and manage portals across your enterprise.

Here's a quick summary of the personas, the tasks they generally perform, and the tools they use:

- **The Knowledge Worker** – Knowledge workers focus on providing and adding content to the portal and reviewing the content of others. Occasionally, knowledge workers may create a new portal based on existing templates for team collaboration or other in-house use. Knowledge workers work exclusively in Portal Builder, the browser-based development environment for WebCenter Portal.
- **The Application Specialist** – Application specialists create and administer portals, build portal templates and page templates, and add content, services, and components to them. For example, an application specialist might create a team collaboration portal template that includes user profiles, a wiki, a documents



section, and other useful features. That template could then be used by knowledge workers on individual teams who create and manage their own team portals. Application specialists also work exclusively in Portal Builder.

- **The Web Designer** – Web designers focus on delivering a consistent, branded look and feel to all portals. A web developer works with graphic design tools to define proposals, then either passes approved designs to the application specialist to implement as templates, or edits page templates in Portal Builder directly.
- **The Web Developer** – Focuses on technologies like JavaScript, HTML, Ajax, JSP, and so on to create rich, interactive user interfaces.
- **The Developer** – Portal developers work primarily in JDeveloper to create custom portal components, like portlets, task flows, and managed beans. Developers create components that require Java, SQL, Expression Language, Oracle Application Development Framework (ADF), and other programming skills.
- **The System Administrator** – The system administrator administers and sets global options for all portals, rather than administering individual portals. As needed, the administrator configures back-end systems such as content repositories, databases, services, and applications. The administrator typically works with tools such as the Administration pages in Portal Builder, Oracle Enterprise Manager, and command line tools like WebLogic Scripting Tool (WLST).

For more detailed information, including which guides are most suitable for each persona, see the "Who's Who" chapter, which appears at the beginning of each of the major WebCenter Portal guides.

## 1.7 Navigating the Oracle WebCenter Portal Documentation Set

This section lists the primary guides for Oracle WebCenter Portal and their intended audiences, as outlined in [Section 1.6, "Building Your Portal Team: Who's Who?"](#)

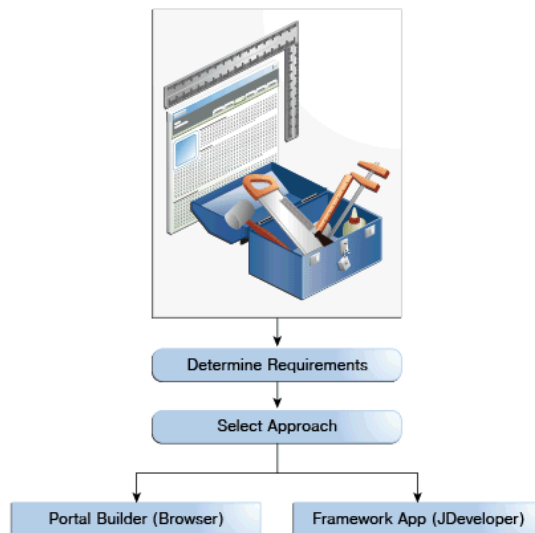
- *Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal*  
This guide is aimed at the application specialist and advanced knowledge worker who creates, edits, and administers portals using Portal Builder. It provides instructions for tasks such as creating, customizing, and administering portals and subportals; managing and developing portal templates; creating and editing portal pages and the content they expose; defining the assets and tools available to portals; setting portal and page security through membership, roles, and permissions; and more.
- *Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper*  
This guide is aimed at the developer who creates Portal Framework applications, portlets, and custom portal components using Oracle JDeveloper. Many of the tasks described in this guide involve activities that require Java, CSS, Application Development Framework (ADF), Expression Language (EL), and related experience.
- *Oracle Fusion Middleware Administering Oracle WebCenter Portal*  
This guide is aimed at system administrators. It explains how to manage global aspects of Oracle WebCenter Portal. System administrators will learn how to deploy portals, configure back-end services, monitor performance, implement backup and recovery strategies, and more.
- *Oracle Fusion Middleware Using Oracle WebCenter Portal*

This guide is aimed at the knowledge worker and other end-users, who interact with information and users through WebCenter Portal. It provides instructions for tasks such as working in a personal environment in the Home portal; working in a portal as a portal member; finding and updating content; creating new content; collaborating with other business users to create, edit, and share documents; and sending and receiving instant messages with peers.

## 1.8 Choosing a Development Approach for Your Portal

The first important design decision to make is to choose a fundamental development approach for your portal. Oracle WebCenter Portal allows two distinctly different development approaches: *Portal Builder* and *Portal Framework* (see [Figure 1-2](#)). Most implementation, administration, and life cycle tasks for a portal project depend on which approach you choose.

**Figure 1-2** *Choosing Your Development Approach*



In this section, we'll look at both Portal Builder and Portal Framework approaches in more detail, and consider a side-by-side comparison of them. Then, we'll list tasks (and provide links to more details about each task) that are commonly performed for each approach.

- [Section 1.8.1, "Considering the Portal Builder Approach"](#)
- [Section 1.8.2, "Considering the Portal Framework Approach"](#)
- [Section 1.8.3, "Comparing Portal Builder and Portal Framework Approaches"](#)
- [Section 1.8.4, "Overview of General Portal-Building Tasks"](#)

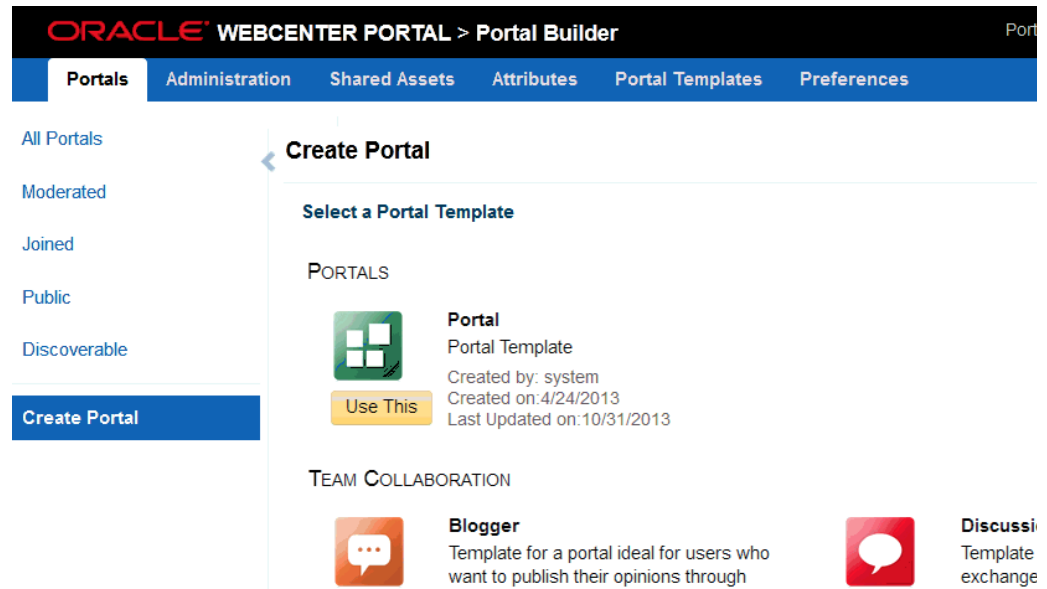
### 1.8.1 Considering the Portal Builder Approach

Portal Builder is a browser-based, packaged environment for building portals. Using Portal Builder, portal creators select from out-of-the-box or custom portal and page templates, simplifying and standardizing the portal creation process.

A drag-and-drop paradigm makes it easy to add content, layout, and feature components to the portal. Portal Builder is oriented toward *application specialists* and *knowledge workers*. They use Portal Builder to create, build out, customize, and manage individual portals. Portal Builder also includes an Administration page, which is used

by *system administrators* to manage global portal settings. [Figure 1–3](#) shows Portal Builder in a browser.

**Figure 1–3** *Creating a New Portal in Portal Builder*



When you choose the Portal Builder path, developer skills, such as ADF and Java, are only required if you want to develop some custom components that are not provided by WebCenter Portal out-of-the-box. Developers can use JDeveloper to build and deploy any specialist skins, page styles, page templates, content display templates, navigations, resource catalogs, data controls, task flows, portlets, and managed beans that you may want to offer in Portal Builder.

It's important to note that Portal Builder is a *multi-portal* solution. You can install a single instance for your company and host multiple portals within it. You can use out-of-the-box templates to get started and subsequently customize them. Typically, system administrators delegate administration rights to designated individuals, so they can manage the portal themselves, reducing the cost to the IT department and enabling thousands of users to be served with minimal support overhead. Portal Builder is the only approach that provides built-in mobile device support and capabilities.

Everything you need to know about building and managing portals with Portal Builder is documented in the guide *Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal*.

### 1.8.1.1 Managing Portal Life Cycle With Portal Builder

Portals built with Portal Builder share a similar life cycle requirement as Portal Framework applications—the need to move the portal from development/staging environments to production. With Portal Builder, it is easy to export an entire portal or individual assets and import them in a different environment. See also [Section 1.8.1.2, "Round-Trip Asset Development With Portal Builder."](#)

For a detailed overview, see the "Understanding the WebCenter Portal Life Cycle" section in *Oracle Fusion Middleware Administering Oracle WebCenter Portal*.

For details on moving portals from one environment to another, see the "Deploying Portals" section in *Oracle Fusion Middleware Administering Oracle WebCenter Portal*.

### 1.8.1.2 Round-Trip Asset Development With Portal Builder

Out-of-the-box, Portal Builder provides some default assets, such as skins and page templates, that you can use directly or modify to suit your needs. If your asset requirements extend beyond the browser-based editing capabilities of Portal Builder, you can further develop assets from within a special JDeveloper project called *WebCenterSpacesResources*. This project is part of a JDeveloper workspace that you can download from Oracle Technology Network. The JDeveloper project provides everything you need to create, modify, and upload assets like page templates, skins, page styles, resource catalogs, and others.

JDeveloper supports the direct uploading/downloading of assets to/from the *WebCenterSpacesResources* project and Portal Builder. You can also export an asset to a file and then import it into Portal Builder or JDeveloper.

See the following section for information about obtaining, setting up, and using the *WebCenterSpacesResources* project for uploading and downloading assets:

- "Developing Assets for WebCenter Portal" section in *Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper*

For information on exporting and importing assets to and from Portal Builder and JDeveloper, see:

- "Deploying Assets" section in *Oracle Fusion Middleware Administering Oracle WebCenter Portal*

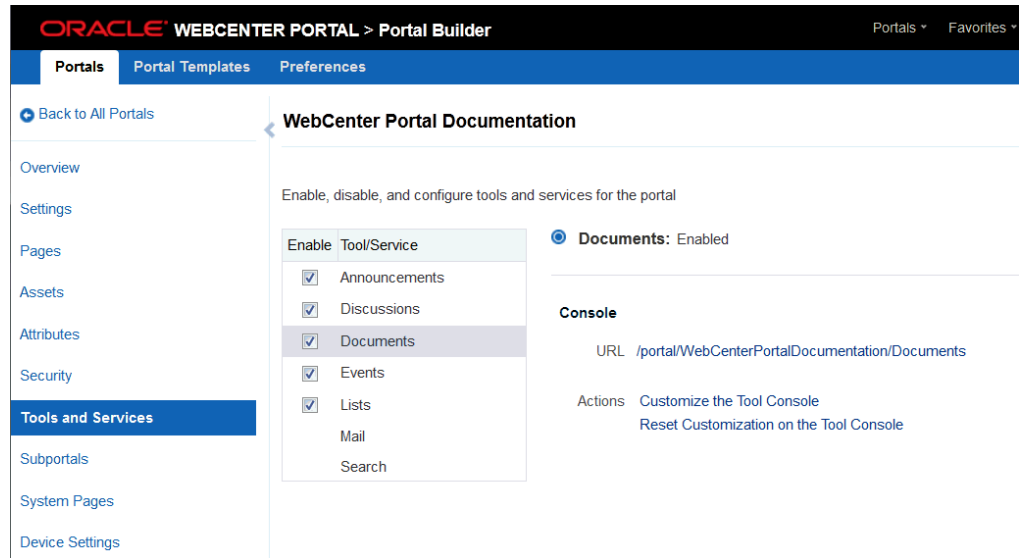
### 1.8.1.3 Bring Content Into Your Portal with Portal Builder

One of the most important portal requirements is content integration. Portal creators and managers need to add and update content, manage content creation, workflows, archiving, and so on.

With Portal Builder, content repository connections are configured and managed by a system administrator. For details, see the "Managing Content Repositories" chapter in *Oracle Fusion Middleware Administering Oracle WebCenter Portal* for detailed instructions.

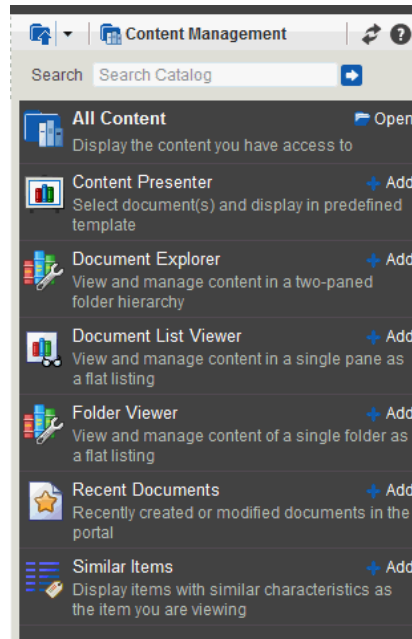
A connection to a back-end content server (Oracle WebCenter Content) is created for Portal Builder out-of-the-box. Once this connection is available, portal moderators can enable document tools in their portals from the Tools and Services page of Portal Builder, as shown in [Figure 1-4](#). They can then add documents tools to portal pages. See the "Enabling and Disabling Tools and Services Available to a Portal" section in *Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal*.

**Figure 1–4 Enabling Documents for a Portal in Portal Builder**



When editing portal pages in Oracle Composer (the page editing environment in Portal Builder), you can drag and drop document components directly on the page. These components are provided in the Content Management catalog, shown in [Figure 1–5](#). For details on these components, see the "About Content Management Selections in the Resource Catalog" section in *Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal*.

**Figure 1–5 The Content Management Catalog in Portal Builder**



For more information, see:

- "Managing Content Repositories" in *Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal*.

- "Publishing Content Using Content Presenter" in *Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal*.
- "Working with Documents Task Flows and Document Components" in *Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal*.
- "Collaborating on Documents" in *Oracle Fusion Middleware Using Oracle WebCenter Portal*.

### 1.8.1.4 Portal Builder Administration

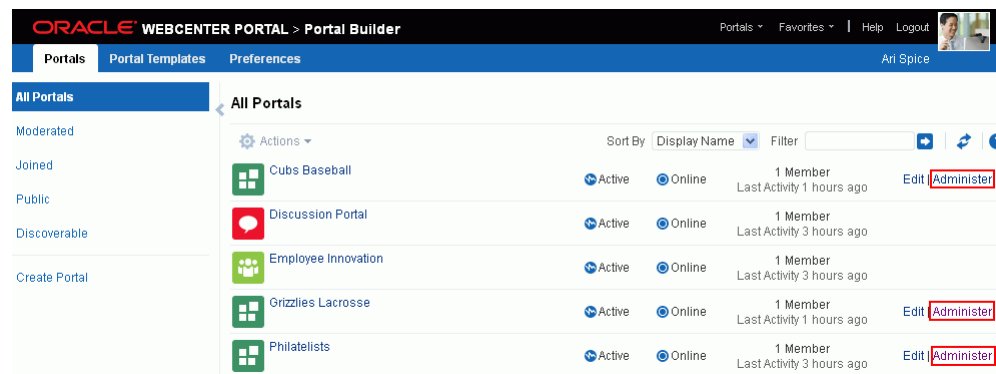
The system administrator is the only user assigned to the WebCenter Portal Administrator role. WebCenter Portal administrators have the highest application privileges within the WebCenter Portal application (which includes Portal Builder). This administrator can view and customize every aspect of WebCenter Portal, manage users and roles, and delegate responsibilities to others.

Individual portals are managed by users who are portal administrators (assigned the portal Moderator role) or a portal member with Manage All or Manage Configuration permission in the portal. Users are assigned portal permissions and roles by the portal administrator (sometimes referred to as the portal moderator).

Any user who accesses administration settings for a portal and does not have Manage permission (for example, a user with Participant role, granted permission to edit a page in the portal) will see only the settings available to their role and permissions.

Figure 1–6 shows the Portals page in Portal Builder. This page displays a table showing all the available portals. If you have one of the Manage permissions mentioned above for a portal, an **Administer** link shows up next to that portal in the link, which allows you to manage the portal.

**Figure 1–6 Portal Builder Portals Page**



For more information about individual portal administration, see the "Administering a Portal" chapter in *Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal*.

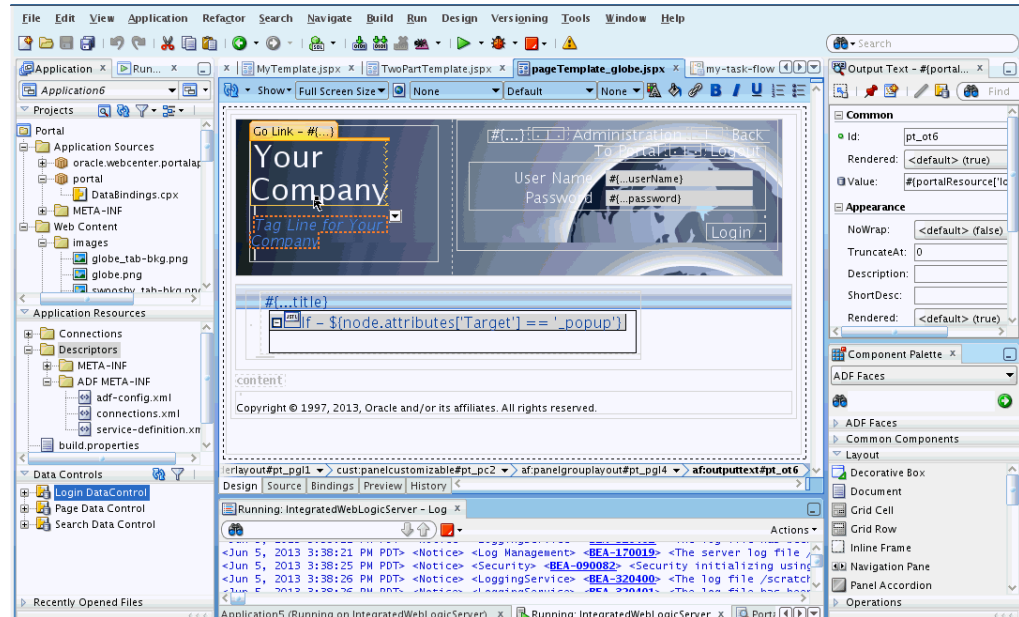
For more information about system administration, see the "System Administration for WebCenter Portal" and "System Administration for Portal Builder" sections in *Oracle Fusion Middleware Administering Oracle WebCenter Portal*.

## 1.8.2 Considering the Portal Framework Approach

Think of a Portal Framework application as the more flexible and customizable approach to building a portal, but also as the more complex approach. Portals built using Portal Framework require considerable Oracle ADF and Java development

expertise and require using Oracle JDeveloper, Oracle's Java development environment. Because Portal Framework applications are pure ADF applications, they integrate well with other ADF applications, which could be important if you have such applications. [Figure 1-7](#) shows a portal project open in JDeveloper.

**Figure 1-7 A Portal Project in JDeveloper**



The Portal Framework approach typically requires a dedicated team of *developers* who create both the portal and any custom components that may be needed. A browser-based portal administration environment is provided that allows administrators and others manage and customize a portal once it is deployed to a server. However, it is important to understand that a Portal Framework application is primarily a developer-focused approach.

Unlike with Portal Builder, Portal Framework is a *single-portal approach*. It's not possible to create sub-portals or a hierarchy of separate portals within a Portal Framework application.

Everything you need to know about building Portal Framework applications is covered in the guide *Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper*.

### 1.8.2.1 Managing Portal Life Cycle with Portal Framework

If you build a Portal Framework application, you need to consider setting up a team development environment, a build environment, and environments for testing, staging, and finally, production. For guidance, read the following chapters of the developer's guide, *Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper*:

- "Working Productively in Teams"
- "Understanding the WebCenter Portal Framework Application Life Cycle"

Developers and administrators typically use standard web application deployment methods (EAR deployment), WLST (WebLogic Scripting Tool), Enterprise Manager, and an out-of-the-box propagation tool to move portals, portal assets, and portal



customizations from one environment to another. JDeveloper allows developers to deploy portals quickly and iteratively to an internal server for testing.

The chapter, "Deploying and Testing Your Portal Framework Application" in *Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper* describes various techniques for deploying portal applications and portal assets from one server to another.

### 1.8.2.2 Round-Trip Asset Development with Portal Framework

In a Portal Framework application, round-trip development refers to features and techniques that allow you to retrieve assets (such as page templates or skins) from a previously deployed Portal Framework application back to JDeveloper for maintenance or enhancement. After modifying an asset in JDeveloper, you can use a feature called the Resource Manager to upload the resource back to the deployed portal.

The typical pattern used for round-trip development of assets in a Portal Framework application is to download the asset from the deployed portal to a file (using the Assets page of the Administration Console). You can then import the downloaded file into JDeveloper and work on it. Then, you export it from JDeveloper and upload the exported asset back to the deployed portal using the Assets page of Administration Console.

For detailed information on this process, see:

- "Working with Round-Trip Development" section in *Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper*.
- "Managing Assets for a Portal Framework Application" section in *Oracle Fusion Middleware Administering Oracle WebCenter Portal*.

### 1.8.2.3 Bring Content into Your Portal with Portal Framework

A developer can create content repository connections directly in JDeveloper. These connections allow the Portal Framework application's content components to access and display content while the developer is actively working on the portal in JDeveloper. The development team may install and maintain its own version of Oracle WebCenter Content, or other repository, for their exclusive use.

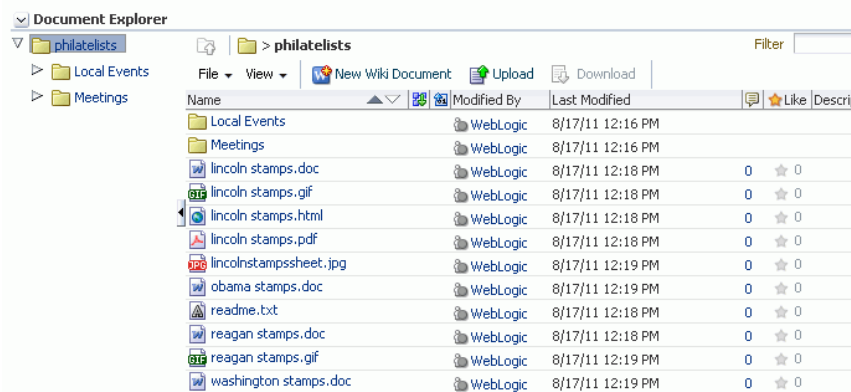
For details on configuring repositories in JDeveloper, see "Configuring Content Repository Connections" chapter in *Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper*. See also "Introduction to Integrating and Publishing Content" chapter in *Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper*.

For portals in a staging or production managed server environment, content repository connections are typically configured and maintained by a system administrator. See "Managing Content Repositories" chapter in *Oracle Fusion Middleware Administering Oracle WebCenter Portal* for detailed instructions.

After repository connections are made, you can integrate content into a Portal Framework application in a variety of ways. For example, you can use the Document Explorer (shown in [Figure 1-8](#)) and other related document tools. Other features you can employ include Content Presenter, content data controls, and REST APIs. These approaches are summarized and compared in the "Introduction to Integrating and Publishing Content" chapter in *Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper*.



**Figure 1–8 The Document Explorer**

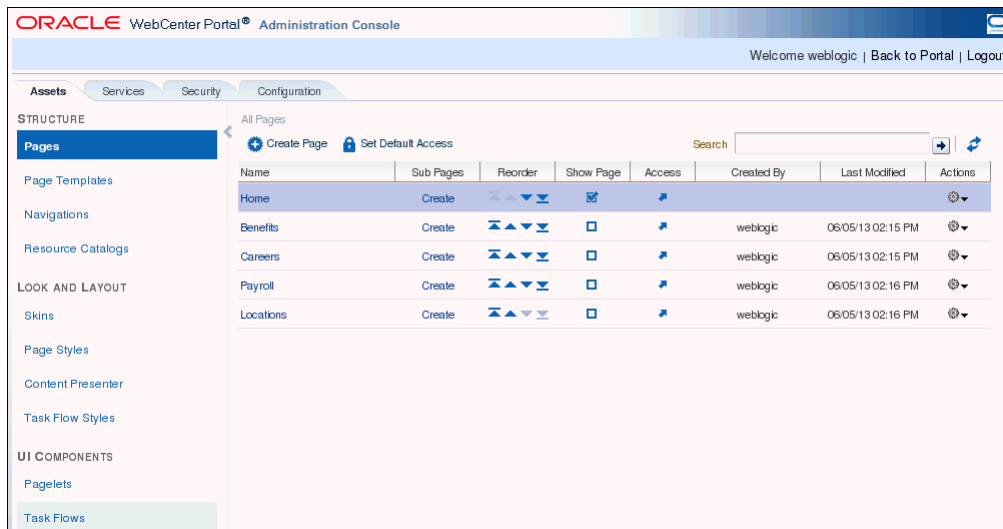


In a Portal Framework application, security must be configured between the application and the content repository (this is not a requirement if you are using Portal Builder). For details, see the "Configuring Security Between Content Server and WebCenter Portal Framework Applications" section in *Oracle Fusion Middleware Administering Oracle WebCenter Portal*.

### 1.8.2.4 Portal Framework Administration

Portal Framework applications can provide a WebCenter Portal Administration Console, shown in Figure 1–9. The console allows authorized users to manage application-wide preferences, manage users and roles, manage assets, manage content, create polls, register producers and external applications.

**Figure 1–9 The Administration Console for Portal Framework Applications**



Application role assignment is the responsibility of the system administrator. Administrators can assign members a default application role or create additional, custom roles specific to their portal application.

Users with the Administrator role can set application-wide preferences, manage assets, manage content, create polls, and register producers and external applications.

Administrators can also manage users and roles for the application, and delegate or revoke privileges to/from other users.

For more information, see the "Administering Portal Framework Applications Using the Administration Console" chapter in *Oracle Fusion Middleware Administering Oracle WebCenter Portal*.

### 1.8.3 Comparing Portal Builder and Portal Framework Approaches

Table 1–1 compares features and characteristics of Portal Builder and Portal Framework. Use this table to help guide your decision about which approach to choose.

**Table 1–1 Comparison of Portal Builder and Portal Framework Features**

Common Portal Features or Requirements	Portal Builder	Portal Framework
<b>Packaged, pre-configured portal building solution</b>	✓  A packaged portal-building solution that runs on a pre-configured portal server.	✗  Portal developers design and configure their own custom Oracle ADF application, and manage deployment to a custom server.
<b>Multiple portals</b>	✓  Multiple portals can be created and managed within a single WebCenter Portal deployment.	✗  Single portal solution. Each Portal Framework application is a separate portal instance. If you want to host multiple portals on your server, a separate application must be created for each portal in JDeveloper and deployed.  Hosting multiple Portal Framework application (J2EE applications) will consume more resources.
<b>Portal hierarchies</b>	✓  Supports hierarchical creation of subportals, a useful feature for portal organization.	✗  Does not support subportals.
<b>Use portal templates</b>	✓  Provides a range of out-of-the-box portal templates. Also enables you to save any portal as a portal template which you can re-use to create similar portals.	✗  Does not support portal templates. Developers create each portal from scratch.

**Table 1–1 (Cont.) Comparison of Portal Builder and Portal Framework Features**

Common Portal Features or Requirements	Portal Builder	Portal Framework
Use any task flow or service	✓	✗
	Full support for WebCenter Portal task flows and services.	Does not support some WebCenter Portal task flows and services: <ul style="list-style-type: none"> <li>■ Announcements</li> <li>■ Notes</li> </ul> Some restrictions for: <ul style="list-style-type: none"> <li>■ Activity Graph</li> <li>■ Discussions</li> <li>■ Documents</li> <li>■ Events</li> <li>■ Search</li> <li>■ REST</li> </ul> See <a href="#">Section 1.9, "Planning for Tools and Services"</a> for details.
Display portals on multiple devices	✓	✓
	Portals display on browsers, smart phones, and tablets out-of-the-box. Includes tooling for configuring device support, as needed.	Mobile support must be developed from scratch.
Personal portal management	✓	✗
	Includes a Home portal. The Home portal is the area where users have access to their profile, preferences, personal pages, available portals, and other features.	Does not provide a Home portal feature or any built-in features for personal pages or preferences.
Intuitive portal UI	✓	✓
	Primary tooling is browser-based. A brand new interface design has been created for improved usability.	Primary tooling is JDeveloper-based. Basic browser-based tooling for portal administrators is available out-of-the-box.
Built-in security	✓	✗
	Security features are built in to the portal.	Security features are configured from scratch by the developer.
	Security configuration between the portal and Oracle WebCenter Content is built-in.	Security must be configured between the portal and the content repository.
	The self-registration feature makes it easy for new users to create an account. Several prebuilt workflows handle portal subscription requests and portal membership notifications.	No portal registration or subscription features are provided.

**Table 1–1 (Cont.) Comparison of Portal Builder and Portal Framework Features**

<b>Common Portal Features or Requirements</b>	<b>Portal Builder</b>	<b>Portal Framework</b>
<b>Portal administration tools</b>	✓	✓
	Portal administration tools are packaged but not extensible.	Custom portal administration tools can be created and integrated, as needed.
	✓	✗
	Administrators can push out information relevant to specific business roles so individuals can stay on top of key updates for their area of the business.	Does not support business role pages.
<b>Portal lifecycle tools</b>	✓	✓
	Import and export features allow you to move your portal from one environment to another.	WebLogic Scripting Tool (WLST) scripts and other tools are provided to assist with portal propagation from one environment to another.
<b>Performance dashboard</b>	✓	✗
	In Enterprise Manager, a custom home page for Portal Builder deployments provides a series of dashboards to report status, performance and availability of all the components, tools, and services used by individual portals, as well as for the portal server.	No dashboards, however, a wide range of page, document, portlet, and WebLogic Server metrics are available for Portal Framework applications. These metrics are in addition to the standard J2EE deployment metrics that are available Enterprise Manager.
<b>Page performance analysis</b>	✓	✗
	Includes a portal page analyzer to help diagnose slow pages. See at a glance which components are slowing down pages.	Feature not available.

**Table 1–1 (Cont.) Comparison of Portal Builder and Portal Framework Features**

<b>Common Portal Features or Requirements</b>	<b>Portal Builder</b>	<b>Portal Framework</b>
<b>Customizable using a Browser</b>	✓  Designed for evolution in the browser. Knowledge workers and application specialists are most comfortable with this approach.	✓  Developers may integrate browser-based customization features, if needed.
<b>Customizable with JDeveloper</b>	✓  Some custom components can be built in JDeveloper, including: ADF task flows, data controls, managed beans, and other assets such as skins, page styles, task flow styles, page templates, content present display templates, navigations, and resource catalogs.  Requires developer expertise.	✓  Designed for evolution in JDeveloper. Developer has complete control over the application, its configuration, and deployment.  Requires developer expertise.
<b>Customizable URLs</b>	✗  URL formats are fixed.	✓  Allows control of URL formatting if your standards require such control.

### 1.8.4 Overview of General Portal-Building Tasks

Table 1–2 lists tasks that you will need to perform during and after the planning stage, no matter which development approach you select.

**Table 1–2 Common Portal Planning, Setup, and Development Tasks**

<b>Task</b>	<b>Portal Framework Details</b>	<b>Portal Builder Details</b>
Install software and configure global settings for Oracle WebCenter Portal.	<ul style="list-style-type: none"> <li>■ <a href="#">Section 1.5, "Getting Oracle WebCenter Portal Up and Running"</a></li> <li>■ "Setting Up Your Development Environment" in <i>Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper</i></li> </ul>	<ul style="list-style-type: none"> <li>■ <a href="#">Section 1.5, "Getting Oracle WebCenter Portal Up and Running"</a></li> </ul>
Determine your portal's requirements.	See <a href="#">Section 1.4, "Common Portal Use Cases"</a>	See <a href="#">Section 1.4, "Common Portal Use Cases"</a>
Consider the portal life cycle. Plan for development, testing, staging, and production environments.	See <a href="#">Section 1.8.2.1, "Managing Portal Life Cycle with Portal Framework"</a>	See <a href="#">Section 1.8.1.1, "Managing Portal Life Cycle With Portal Builder"</a>

**Table 1–2 (Cont.) Common Portal Planning, Setup, and Development Tasks**

Task	Portal Framework Details	Portal Builder Details
<p>Create back-end connections to content repositories, services, and databases, as needed.</p>	<ul style="list-style-type: none"> <li>■ "Configuring Content Repository Connections" in <i>Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper</i>.</li> <li>■ "Configuring WebCenter Back-End Services" in <i>Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper</i></li> <li>■ "Managing Tools and Services" in <i>Oracle Fusion Middleware Administering Oracle WebCenter Portal</i></li> <li>■ See <a href="#">Section 1.8.2.3, "Bring Content into Your Portal with Portal Framework"</a></li> </ul>	<ul style="list-style-type: none"> <li>■ "Managing Tools and Services" in <i>Oracle Fusion Middleware Administering Oracle WebCenter Portal</i></li> <li>■ See <a href="#">Section 1.8.1.3, "Bring Content Into Your Portal with Portal Builder"</a></li> </ul>
<p>Develop a security plan. Add delegated security to pages and assets and membership to the portal</p>	<p>See <a href="#">Section 1.11, "What You See Depends on Who You Are"</a></p>	<p>See <a href="#">Section 1.11, "What You See Depends on Who You Are"</a></p>
<p>Pick and choose the services you wish to add to the portal. For example, the documents service allows documents to be stored, archived, shared, and edited. The activity service allows the activities of portal members to be tracked.</p>	<p>"Preparing Your Application for WebCenter Portal Tools and Services" in <i>Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper</i></p> <p>See <a href="#">Section 1.9, "Planning for Tools and Services"</a>.</p>	<p>"About Portal Tools and Services" in <i>Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal</i></p> <p>See <a href="#">Section 1.9, "Planning for Tools and Services"</a></p>
<p>Create a new portal.</p>	<p>"Creating WebCenter Portal Framework Applications" in <i>Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper</i></p>	<p>"Creating and Building a New Portal" in <i>Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal</i></p>

**Table 1–2 (Cont.) Common Portal Planning, Setup, and Development Tasks**

Task	Portal Framework Details	Portal Builder Details
Build up the portal structure by adding pages, portal assets, navigation elements, and other features to it.	"Introduction to Portal Resource Management" in <i>Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper</i>	<ul style="list-style-type: none"> <li>■ "Creating and Editing a Portal Page" in <i>Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal</i></li> <li>■ "Creating, Editing, and Managing Assets" in <i>Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal</i></li> </ul>
<p>Add content to the portal. Requires a connection to Oracle WebCenter Content, or other content repository.</p> <ul style="list-style-type: none"> <li>■ Use document tools to view and manage documents and other types of content in your organization's content repositories.</li> <li>■ Consider using Content Presenter to include targeted content.</li> </ul>	<ul style="list-style-type: none"> <li>■ "Introduction to Integrating and Publishing Content" in <i>Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper</i></li> <li>■ "Configuring Content Repository Connections" in <i>Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper</i></li> <li>■ See <a href="#">Section 1.8.2.3, "Bring Content into Your Portal with Portal Framework"</a></li> </ul>	<ul style="list-style-type: none"> <li>■ "Introduction to Working with Content" in <i>Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal</i></li> <li>■ "Publishing Content Using Content Presenter" in <i>Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal</i></li> <li>■ "Working with Documents Task Flows and Document Components" in <i>Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal</i></li> <li>■ See <a href="#">Section 1.8.1.3, "Bring Content Into Your Portal with Portal Builder"</a></li> </ul>
Make iterative changes to the portal as needed. Redeploy or move changes between environments.	<ul style="list-style-type: none"> <li>■ "Deploying Portals Framework Applications" in <i>Oracle Fusion Middleware Administering Oracle WebCenter Portal</i>.</li> <li>■ "Understanding the WebCenter Portal Framework Application Life Cycle" in <i>Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper</i>.</li> <li>■ See also, <a href="#">Section 1.8.2.1, "Managing Portal Life Cycle with Portal Framework."</a></li> </ul>	<ul style="list-style-type: none"> <li>■ "Understanding WebCenter Portal Life Cycle" in <i>Oracle Fusion Middleware Administering Oracle WebCenter Portal</i>.</li> <li>■ "Publishing a Portal" in <i>Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal</i></li> <li>■ See also, <a href="#">Section 1.8.1.1, "Managing Portal Life Cycle With Portal Builder."</a></li> </ul>

## 1.9 Planning for Tools and Services

[Table 1–3](#) lists the tools and services that you may wish to use in a portal. The last column notes any planning considerations—things you may wish to consider before choosing the Portal Builder or Portal Framework approach.

**Table 1–3 Planning for Oracle WebCenter Portal Tools and Services**

Tools and Services	Description	Planning Considerations
<b>Activity Graph</b>	Recommends people, portals, and content that a user may be interested in connecting with, based on existing connections and shared interaction with objects in the portal.	For Portal Framework only, the page view feature requires a snippet of event code to be added to each page.
<b>Activity Stream</b>	Provides a streaming view of the activities of your connections, actions taken in portals, and business activities.	There are no differences to consider between Portal Builder and Portal Framework for activity stream.
<b>Analytics</b>	Enables you to display usage and performance metrics for your portal application.	There are no differences to consider between Portal Builder and Portal Framework for analytics.
<b>Announcements</b>	Provides the ability to post announcements about important activities and events to all authenticated users.	Only available in Portal Builder.
<b>Discussions</b>	Provides the ability to create threaded discussions, posting and responding to questions and searching for answers.	In general, there are no differences to consider between Portal Builder and Portal Framework for discussions. However, use of RSS in a discussion forum is only supported in Portal Builder.
<b>Documents</b>	Provides content management and storage capabilities, including file upload, file and folder creation and management, file check out, versioning, and so on. Exposes these capabilities through Document task flows like Document Explorer, Content Presenter, and more.	<p><b>Portal Builder:</b> Document services are automatically available; a folder is created on Oracle WebCenter Content Server with the appropriate access permissions.</p> <p><b>Portal Framework:</b> No such provisioning occurs, and you must configure your own access permissions.</p> <p>In a Portal Framework application, security must be configured between the application and content repository (this is not a requirement if you are using Portal Builder).</p>
<b>Events</b>	Provides the ability to create and maintain a schedule of events relevant to a wider group of authenticated users. Also provides access to your personal events from your Outlook calendar if the Exchange server is configured.	<p><b>Portal Builder:</b> Supports personal events <i>and</i> portal events. Portal events are related to a specific portal and they display to all members of the portal on the portal's dedicated Events page (which can be exposed by the portal moderator) or in any events task flow that is located on a page in the portal.</p> <p>Personal events come from your Microsoft Exchange calendar and display only to you.</p> <p><b>Portal Framework:</b> Only supports personal events.</p>
<b>Instant Messaging and Presence</b>	Provides the ability to observe the status of other authenticated users (online, offline, busy, or away) and to contact them instantly.	There are no differences to consider between Portal Builder and Portal Framework for instant messaging and presence.



**Table 1–3 (Cont.) Planning for Oracle WebCenter Portal Tools and Services**

<b>Tools and Services</b>	<b>Description</b>	<b>Planning Considerations</b>
<b>Lists</b>	Provides the ability to create, publish, and manage lists.	<p><b>Portal Builder:</b> Portal moderators can create, delete, or modify lists for their portals. They can delegate these permissions to others as needed.</p> <p><b>Portal Framework:</b> By default, only administrators can create, delete, or modify lists, although this permission can be changed by the administrator when the portal is deployed.</p>
<b>Mail</b>	Provides easy integration with IMAP and SMTP mail servers to enable users to perform mail functions, such as reading messages, creating messages with attachments, replying to or forwarding messages, and deleting messages.	There are no differences to consider between Portal Builder and Portal Framework for mail.
<b>Messages and Feedback</b>	Provides the ability to post messages, attachments, and feedback for your connections and to the activity stream.	There are no differences to consider between Portal Builder and Portal Framework for messages and feedback.
<b>Notes</b>	Provides the ability to "jot down" and retain bits of personally relevant information.	Only available in Portal Builder.
<b>Notifications</b>	Provides a means of subscribing to services and application objects and, when those objects change, receiving notification across one or more messaging channels.	There are no differences to consider between Portal Builder and Portal Framework for notifications.
<b>Polls</b>	Enables you to survey your audience (such as their opinions and their experience level), check whether they can recall important information, and gather feedback.	There are no differences to consider between Portal Builder and Portal Framework for polls.
<b>Profiles</b>	Provides views of users' contact information (such as e-mail address, business address, phone number), department, manager, photo, portal activities, public documents, and connections.	There are no differences to consider between Portal Builder and Portal Framework for profiles.
<b>Recent Activities</b>	Provides a summary view of recent changes to documents, discussions, and announcements.	<ul style="list-style-type: none"> <li>■ <b>Portal Builder:</b> The recent activities task flow shows recent activities for the specific portal in which it is used.</li> <li>■ <b>Portal Framework:</b> All recent activities are shown.</li> </ul>
<b>REST Services</b>	REST (REpresentational State Transfer) is an architectural style for making distributed resources available through a uniform interface that includes uniform resource identifiers (URIs), well-defined operations, hypermedia links, and a constrained set of media types.	<ul style="list-style-type: none"> <li>■ <b>Portal Builder:</b> Full support for REST APIs for services that support REST, such as people connections and discussions.</li> <li>■ <b>Portal Framework:</b> Only the navigation REST API is available.</li> </ul>

**Table 1–3 (Cont.) Planning for Oracle WebCenter Portal Tools and Services**

Tools and Services	Description	Planning Considerations
RSS	Provides the ability to access the content of many different web sites from a single location—a news reader.	RSS is supported in both Portal Builder and Portal Framework. However, in Portal Framework RSS is not supported within discussion forums.
Search	Provides search functionality. This includes integrating Oracle Secure Enterprise Search (SES).	<ul style="list-style-type: none"> <li>■ <b>Portal Builder:</b> Page metadata, portal metadata, profile, and list, are included for search, in addition to documents, discussions, and announcements.</li> <li>■ <b>Portal Framework:</b> By default, search uses crawl-based search, but SES configuration must be performed. Also, only documents, discussions, and announcements are included for search.</li> </ul>
Tags	Provides the ability to assign one or more personally-relevant keywords to a given page or document	<ul style="list-style-type: none"> <li>■ <b>Portal Builder:</b> Users can tag pages and documents.</li> <li>■ <b>Portal Framework:</b> Allows tagging custom objects, in addition to pages and documents.</li> </ul>
Worklists	Provides access to all Business Process Execution Language (BPEL) worklist items assigned to the user.  Worklist notifications and alerts are queried from all of the BPEL servers configured in WebCenter Portal.	There are no differences to consider between Portal Builder and Portal Framework for worklists.
Portlets	A <i>portlet</i> is a reusable web component that can draw content from many different sources. Portlets can contain anything from static HTML content to Java controls to complex web services and process-heavy applications.	There are no differences to consider between Portal Builder and Portal Framework for portlets.

For more information about tools and services, see:

- "Introduction to Portal Tools and Services" chapter in *Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal*
- "Preparing Your Application for WebCenter Portal Tools and Services" chapter in *Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper*

## 1.10 Planning for a Consistent Look and Feel

An important portal planning activity involves considering the layout, style, and organization of your portal and delegating their actual implementation. It is common for an enterprise portal to include hundreds or even thousands of pages, and planning for a consistent look and feel across all pages is a crucial planning step.

WebCenter Portal uses templates, page styles, skins, navigations, and other assets that are used to some degree to achieve consistency across portal pages. When you create a new portal or a new page, picking from a catalog of these assets makes it easy to achieve a consistent user experience and an appropriate mix of features, depending on the purpose of the portal and its audience.

[Table 1–4](#) briefly describes features related to look and feel and gives links to implementation details in the Oracle WebCenter Portal documentation. The table lists

the look and feel assets that help you achieve consistency across the portal; however, in practice, the first assets you will probably choose to implement are page templates, page styles, skins, and navigation components.

---

**Note:** Sample implementations of many of the templates and other assets that are used to achieve consistency are provided with WebCenter Portal out-of-the-box. These seeded components can be used directly or used as a starting point for creating new custom components.

---

**Table 1–4 Portal Look and Feel Related Assets**

Look and Feel Components	Description	Portal Builder	Portal Framework
Portal Template	<p>Portal templates provide an easy way to get started creating a portal. You can save any existing portal as a portal template. If a service, like documents, is enabled in the template, it will be enabled in the portal created from that template.</p> <p>See the "Working with Portal Templates" section in <i>Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal</i>.</p>	✓	✗
Page Template	<p>Page templates control the layout and common content of portal pages across the entire portal. Page templates typically define header, footer, and content regions for a page. In addition, they can be used to add brand-specific elements, like logos, navigational elements, and action elements, like login/logout buttons.</p> <p>For Portal Builder, see the "Working with Page Templates" section in <i>Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal</i>.</p> <p>For Portal Framework, see the "Developing Page Templates" section in <i>Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper</i>.</p>	✓	✓
Page Style	<p>Page styles also control aspects of the layout of a page, but focus more on the way content is arranged in the page. Page styles can be used, for example, to ensure the consistent arrangement of content and the types of content that appear in pages.</p> <p>For Portal Builder, see the "Working with Page Styles" section in <i>Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal</i>.</p> <p>For Portal Framework, see the "Developing Page Styles and Task Flow Styles" section in <i>Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper</i>.</p>	✓	✓
Skins	<p>CSS-based skins work together with page templates to determine the overall look and feel of the pages in your portal. While the page template controls the location and behavior of components on the page, the skin controls the visual appearance of those components.</p> <p>For Portal Builder, see the "Working with Skins" section in <i>Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal</i>.</p> <p>For Portal Framework, see the "Developing Skins" section in <i>Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper</i>.</p>	✓	✓

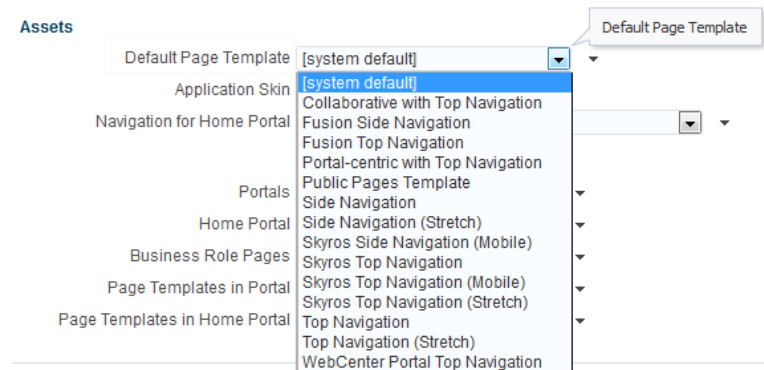
**Table 1–4 (Cont.) Portal Look and Feel Related Assets**

Look and Feel Components	Description	Portal Builder	Portal Framework
Navigations	<p>Navigations assets have a structure (like tabs, breadcrumbs, or tree), and specify the specific targets to navigate to.</p> <p>For Portal Builder, see the "Working with Portal Navigation" chapter in <i>Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal</i>.</p> <p>For Portal Framework, see the "Developing a Navigation Model" section in <i>Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper</i>.</p>	✓	✓
Display Templates	<p>Display templates define how Content Presenter displays content items (including images and text) in a portal. Content Presenter enables you to precisely customize the selection and presentation of content in a portal.</p> <p>Note: New display templates must be created in JDeveloper.</p> <p>For Portal Builder, see the "Publishing Content Using Content Presenter" section in <i>Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal</i>.</p> <p>For Portal Framework, see the "Creating Content Presenter Display Templates" section in <i>Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper</i>.</p>	✓	✓
Task Flow Styles	<p>Task flow styles are templates used for creating task flows. They ensure consistency in the way task flows are visualized.</p> <p>For Portal Builder, see the "Working with Task Flow Styles" section in <i>Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal</i>.</p> <p>For Portal Framework, see the "Developing Page Styles and Task Flow Styles" section in <i>Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper</i>.</p>	✓	✓

---

**Note:** In Portal Builder, an administrator can set a default page template for all portals. A portal moderator (someone who creates a new portal instance) can override the global default and set a default page template for a specific portal. The default cannot be overridden on specific pages. In this way, layout consistency is ensured across the entire portal. [Figure 1–10](#) shows the administration UI for setting the default page template in Portal Builder, where the default page template is selected from a list.

---

**Figure 1–10 Selecting a Default Page Template in Portal Builder**

## 1.11 What You See Depends on Who You Are

Typically, users must log in to the portal, and, based on role-based delegated security settings made by an administrator, they see only the information and resources that they are authorized to see.

For example:

- Employees log in and securely change their personal information, like address or phone number.
- A Human Resources manager adds, removes, or updates content in the specific parts of the portal that he or she has permission to edit.
- Managers view information about their direct reports, like salary history and performance reviews.
- Business partners can only view their orders. In this case, the portal may pass the security context to the underlying application through single sign-on.
- Partners only allowed to view their orders within a certain time or the actions available to them are based on their region or partner status.

WebCenter Portal handles all of these diverse aspects of security.

---

**Note:** When you create a new portal in Portal Builder, you can set overall access to be public, private, or hidden. Anyone can visit a public portal. Private and hidden portals require some kind of special authorization, such as membership required through an invitation. Hidden portals are not shown in the list of available portals, and will not appear in search results.

---

Through standard security paradigms like single sign-on, portal security can also be passed to the underlying applications, giving the user a uniform experience when interacting with the portal.

Access to portal pages and components can be further refined through delegated administration. Delegated administration provides a mechanism for securing portal resources based on user roles. For example, you can allow users in one role (managers, for instance) to access all portal features, but deny certain features to users in another role (employees, for instance).

Delegated security is particularly important for portals with many pages. Because security settings are inherited from parent pages to child pages (within the page hierarchy), it is not necessary to set security for each individual page.

**For More Information on Security for Portal Builder**

- "Managing Security Across Portals" chapter in *Oracle Fusion Middleware Administering Oracle WebCenter Portal*.
- "Administering Security in a Portal" chapter in *Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal*.
- "Granting Portal Users Access to a Portal" section in *Oracle Fusion Middleware Building Portals with Oracle WebCenter Portal*.

**For More Information on Security for Portal Framework Applications**

- "Securing Your WebCenter Portal Framework Application" chapter in *Oracle Fusion Middleware Developing Portals with Oracle WebCenter Portal and Oracle JDeveloper*.
- "Default Security Configuration" in *Oracle Fusion Middleware Administering Oracle WebCenter Portal*.
- "Configuring Portal Framework Applications for Single Sign-on" chapter in *Oracle Fusion Middleware Administering Oracle WebCenter Portal*.
- "Managing Oracle WebCenter Portal Security" in *Oracle Fusion Middleware Administering Oracle WebCenter Portal*.

## 1.12 Understanding System and Portal Administrator Roles

After initial installation, system administrators typically configure global options for the portal. Typically, the portal administrator delegates limited administrative rights to application specialists and knowledge workers, as appropriate. These users, then, take over most of the day-to-day management of individual portals.

For instance, a portal administrator may have authorization to delegate portal creation and management rights to certain application specialists across your organization. These users, in turn, can delegate certain rights to other users, such as knowledge workers responsible for updating content on a daily basis. Furthermore, collaborative teams can be formed that grant rights to team members who contribute and collaborate on content using their team portal.

The ability to delegate portal administration rights across a spectrum of possible users greatly decreases the overall cost to the IT department, enabling thousands of users to be served with minimal support overhead.

System administrators also configure and maintain back-end connections to services, databases, and content repositories. Many portal components rely on these connections, including document components, components like discussions and activity tracking, and others. They also manage portal backups and recovery strategies.

For a good introduction to portal administration, see the "Introduction to Administering Oracle WebCenter Portal" chapter in *Oracle Fusion Middleware Administering Oracle WebCenter Portal*.

## 1.13 Portal Planning Summary

If you are building an intranet portal to support multiple lines of business, an extranet portal to support customers and business partners, a team collaboration portal, or if you have other portal use cases, you will need to address these basic planning tasks:

- **Decide to use Portal Builder or WebCenter Portal Framework for your development approach.**

As discussed previously, this decision guides most aspects of your portal implementation, the composition of your portal development team, and certain features that are available to you.

See [Section 1.8, "Choosing a Development Approach for Your Portal."](#)

- **Assemble your portal team.**

Remember that Portal Builder is primarily a browser-based approach that is oriented toward knowledge workers and application specialists. Portal Framework is primarily a developer-centric approach that requires JDeveloper skills to create and evolve the portal.

See [Section 1.6, "Building Your Portal Team: Who's Who?"](#)

- **Develop the basic organizational scheme for your portal.**

There are many ways to organize a portal. For example, your portal might reflect your company's departmental organization, lines of business, or business processes.

If you are using the Portal Builder approach, you have several options for portal organization. All users could have access to the central landing page, which might be a Home page, the Home portal, or the parent portal in a set of hierarchical portals. With Portal Builder, you can also use role-based navigational elements and delegated role-based access through the page hierarchy.

If you are use Portal Framework, you can create a page hierarchy with delegated, role-based access permissions to each "part" of the portal. Navigation elements are also role based, allowing links, tags, breadcrumbs, and so on to be shown or hidden depending on the user's role.

See [Section 1.10, "Planning for a Consistent Look and Feel"](#) and [Section 1.11, "What You See Depends on Who You Are"](#).

- **Develop a consistent layout and look for your portal pages.**

Portal layout is controlled primarily with page templates and page styles. Page templates determine the overall organization of pages within the portal. Templates typically include branding elements, like the company logo, that are intended to appear on all pages. Page styles allow you to standardize how content is organized within pages. Skins control the overall "look" of the portal. Skins define colors, fonts, and other aspects of various components used on the pages of a portal.

Developers can create custom templates and skins in JDeveloper which can be deployed a portal server where Portal Builder is running or to a Portal Framework application.

Knowledge workers can create templates in Portal Builder, typically by copying and modifying existing assets using Oracle Composer, and then saving them.

See [Section 1.10, "Planning for a Consistent Look and Feel"](#) and [Section 1.3.11, "Round-trip Asset Development."](#)

- **Integrate content into the portal.**

No matter what kind of portal you create, you will need a content integration and management strategy. Oracle WebCenter Portal provides several ways to integrate content, including the documents task flows (such as the Document Explorer) and Content Presenter. Document-related features require a connection to a content repository. Typically, content connections are configured by a system administrator.

See also [Section 1.8.1.3, "Bring Content Into Your Portal with Portal Builder"](#) and [Section 1.8.2.3, "Bring Content into Your Portal with Portal Framework"](#).

- **Choose the tools and services you wish to use in your portal.**

Oracle WebCenter Portal tools and services are commonly used to deliver specialized content and functionality to portals. For example, for a company intranet portal, announcements are useful for spreading information of interest to a like-minded group, immediately or on a selected date and time. The activity graph service is useful for providing recommendations for pages and documents of interest based on an analysis of user activity. Instant messaging and presence keeps department members alert to each others' online status and provides options for contacting another user on the spot. Worklists are useful for keeping track of workflow notifications and messages channeled through the User Messaging Service (UMS). See [Section 1.9, "Planning for Tools and Services."](#)

Be aware that some differences exist between the availability of tools and services and their features, depending on whether you are using Portal Builder or Portal Framework. See [Table 1-3, "Planning for Oracle WebCenter Portal Tools and Services"](#).

- **Secure your portal, its pages, and resources.**

See the section [Section 1.11, "What You See Depends on Who You Are"](#) for an overview of portal security and for links to WebCenter Portal documentation for more detailed overviews and implementation information. With Portal Builder, most security features are built-in to the application. With Portal Framework, more security configuration is required by developers.

- **Integrate applications into the portal.**

Other technologies that can be used with or integrated into a portal are Oracle Fusion Applications, Oracle Identity Management Suite, Oracle SOA Suite, Oracle Enterprise Manager, and Oracle eBusiness Suite, as well as PeopleSoft, Siebel, and JD Edwards enterprise applications, and others. See [Section 1.3.2, "Integration with Other Oracle Products and Applications."](#)

Portlets and pagelets provide another way to bring remote applications and content into a portal. See [Section 1.3.7, "Support for Portlets"](#) and [Section 1.3.8, "Support for Pagelets."](#)

The main Oracle WebCenter Portal documentation set provides implementation details on all of the features described in this guide, and more. See [Section 1.7, "Navigating the Oracle WebCenter Portal Documentation Set."](#)