

# Oracle Portal 10g Release 2 Product Overview

*An Oracle White Paper  
December 2004*

# Oracle Portal 10g Release 2 Product Overview

Executive Summary.....	3
Introduction .....	3
Build and Maintain Your Portal with Productive Tools.....	3
Developing with Wizard-Driven Tools.....	3
Customizing Portlets.....	3
Enabling Portlet to Portlet Communication. ....	3
Enjoying Self-Service Content Publishing, Management, and Access.....	4
Classifying and Managing Content.....	4
Deploying to a Multilingual Community.....	4
Searching Content.....	4
Deliver Essential Applications and Content in One Interface .....	4
Benefiting from Built-in Business Intelligence.....	4
Enabling Wireless Support. ....	5
Integrating Enterprise Applications.....	5
Selecting From the Growing Catalog of Partner Applications.....	5
Developing Custom Portlets with the Oracle Portal Developer Kit.....	5
Lower cost and increase flexibility with OracleAS 10g.....	5
Ensure Interoperability with an Open Architecture.....	7
An Open Framework With Portlets and Provider Architecture. ....	7
Protection Of Your Investments with a Standards Based Solution. ....	7
Ability to Federate Portals with Hosting Support .....	7
Scale to Meet Changing Performance Requirements .....	7
Boosting Performance With Patented Web Caching.....	7
Lowering Hardware Costs with Flexible Deployment.....	8
Simplify Administration with a Flexible Management Model .....	8
Administering the Portal Through Managed Delegation.....	8
Streamlining User Management with Single Sign-On.....	8
Monitoring Portal Services with Oracle Enterprise Manager (OEM).....	8
Conclusion .....	8

# Oracle Portal 10g Release 2 Product Overview

## EXECUTIVE SUMMARY

Today's enterprises are gaining competitive advantage and realizing increased productivity by deploying an enterprise portal within their IT infrastructure. Enterprise portals are specifically designed to be the single source of interaction with corporate information and the focal point for conducting day-to-day business. Oracle Portal - a component of Oracle Application Server - is a complete and integrated solution for building, deploying, and maintaining a world-class enterprise portal.

## INTRODUCTION

Oracle Portal combines a rich, declarative environment for creating a portal Web interface, publishing and managing information, accessing dynamic data, and customizing the portal experience, with an extensible framework for J2EE-based application access. Using Oracle Portal, e-businesses have the power to connect employees, partners, and suppliers with the information they need and the flexibility to create views tailored to each community.

## BUILD AND MAINTAIN YOUR PORTAL WITH PRODUCTIVE TOOLS

With a wizard-driven interface to create, evolve, and manage your portal, Oracle Portal enables you to build your portal using a Web browser. This interface enables you to delegate certain tasks like user management, page and template design, and content publishing to line of business users. Build and maintain your portal by:

- **Developing with Wizard-Driven Tools.** Page design and development features within Oracle Portal give administrators, page designers, and end users a powerful environment in which to create content-rich, secure, portal pages - no programming is required.
- **Customizing Portlets.** Per user, per instance-level portlet personalization offers significant productivity gains to both the portal developer and the portal user. Multiple instances of the same portlet can be added to a single page, each with its own, independent personalization settings.
- **Enabling Portlet to Portlet Communication.** Portlets can be connected to produce integrated Web-based applications, even when the portlets publish

data from different systems. By wiring portlets together, you can drive the content and display of other portlets and pages.

- **Enjoying Self-Service Content Publishing, Management, and Access.** Browser-based wizards and integrated editing dialogs make it easy for page designers to publish and manage the content that appears on their pages. Business level users can also use this publishing environment to easily define collaborative work areas and to publish their business documents. No knowledge of HTML is required. File-type content can also be published via the Web-based Distributed Authoring and Versioning (WebDAV) protocol. Users can simply drag and drop content, files, and folders between portal pages and the desktop. File-type items can also be opened, edited, and saved directly from WebDAV desktop applications like MS Office 2000.
- **Classifying and Managing Content.** Portal administrators set the policies for content types, their attributes, and how both are managed for the pages within a portal. These policies provide precise control over content item attribution, attribution values, and how attributes are presented. Additional features such as content routing and approval, item version control, check-in/check-out, automated publish and expiration dates, and automatic indexing support collaborative document creation, ease content management tasks, and make finding published items easy.
- **Deploying to a Multilingual Community.** All text appearing in wizards, dialog boxes, messages, and help topics has been translated into 29 languages. Content owners can load multiple translations of their content items.
- **Searching Content.** The advanced searching capabilities are directly integrated, thus allowing documents to be both summarized and grouped by theme. External data sources such as remote Oracle databases, IMAP mail servers, Web sites, and file systems are also accessible via integration with Oracle UltraSearch.

## **DELIVER ESSENTIAL APPLICATIONS AND CONTENT IN ONE INTERFACE**

Oracle Application Server includes a complete set of services, all of which may be deployed via the portal environment to create a complete solution. Deliver essential applications and content in one interface by:

- **Benefiting from Built-in Business Intelligence.** Many portal implementations require tools to create detailed analyses and reports on enterprise data. Pre-integrated business intelligence components within Oracle Application Server support ad-hoc query, reporting, and analysis of enterprise data. These components can easily be exposed in your portal as portlets.

- **Enabling Wireless Support.** The portal automatically transforms the portal page structure to a form appropriate for the smaller screen devices common for wireless clients. This means that anything that is mobile-capable on the page will be displayed to the mobile device.
- **Integrating Enterprise Applications.** Oracle Portal can use the Oracle Integration server as the interface to 3rd party enterprise applications such as SAP, PeopleSoft, Siebel, MQ Series and others.
- **Selecting From the Growing Catalog of Partner Applications.** Oracle's PartnerNetwork (OPN) includes over 120 partners who offer complementary applications or value added services for Oracle Portal customers. OPN's Solutions Catalog provides an easy to use interface for accessing information about each partner and over 400 available portlets. See <http://solutions.oracle.com> for additional information on the Oracle PartnerNetwork and to access the Solutions Catalog.
- **Developing Custom Portlets with the Oracle Portal Developer Kit.** Using the Oracle Portal Developer Kit (PDK), developers can build custom portlets that interact with customer-specific content or applications. The PDK offers several feature sets, including the ability to incorporate off -the-shelf Web services, additional J2EE services, and any Web-accessible content.

## **LOWER COST AND INCREASE FLEXIBILITY WITH ORACLE APPLICATION SERVER**

Oracle Portal takes full advantage of the on-demand grid computing capabilities of Oracle Application Server. Grid computing is a new software architecture designed to effectively pool together large amounts of low cost modular storage and servers to create a virtual computing resource across which work can be transparently distributed to use capacity very efficiently, at low cost, and with very high availability. The resources in a grid can include storage, servers, databases, application servers, and applications. By pooling resources together, grid computing can offer dependable, consistent, pervasive, and inexpensive access to these resources regardless of their location and when needed, thereby fulfilling the need for computing capacity on-demand.

Oracle offers a comprehensive solution to manage information and run Enterprise Applications on grids using Oracle Database and Oracle Application Server. Both Oracle Database and Oracle Application Server can be managed in a grid computing environment using Oracle Grid Control. Together these products address the challenges faced by I/T organizations today.

- **Radically reduce or eliminate excess computing capacity** by automatically load balancing workloads to use spare capacity efficiently eliminating “islands of computation”
- **Modular, inexpensive capacity growth** by adding capacity on-demand in low cost modular units
- **Radically lower cost of management** by centralizing administration of the resources in a grid and automating provisioning and administration tasks across these resources

### **Oracle Application Server and its Benefits**

Oracle Application Server, the next generation of Oracle’s integrated software infrastructure for enterprise applications, has been designed to enable grid computing. It has been designed to effectively pool together large numbers of low cost servers to create a virtual computing resource across which Enterprise Applications can be transparently distributed to use capacity very efficiently, at low cost, and with very high availability. Any existing application that runs on Oracle Application Server can transparently take advantage of grid computing without any changes. Service-oriented applications will find additional benefits when deployed in a grid. Oracle Application Server provides a number of grid computing features, most importantly:

- **Radically reduce or eliminate excess computing capacity** through policy-based resource management; metrics-based workload management; and a variety of advanced back-up, disaster recovery, and clustered fail-over solutions to provide maximum availability in a grid.
- **Modular, inexpensive capacity growth** through automated Installation, configuration, and software provisioning (including both software cloning and patch management) across hundreds of nodes in a grid.
- **Radically lower cost of management** and elimination of human errors in management through centralized systems monitoring, unified application server cluster management (including cluster monitoring, cluster optimization, and cluster-wide application deployment), and centralized identity management across a grid.

## ENSURE INTEROPERABILITY WITH AN OPEN ARCHITECTURE

Oracle Portal is an integral component of the Oracle Application Server. The portal architecture includes a highly tuned, multi-threaded servlet engine to retrieve content from the portal repository, manage caching, assemble portal pages, and deliver completed pages - all in parallel. Because the parallel page engine is deployed on Oracle's J2EE Server - Oracle's highly scalable, award winning J2EE framework - performance is truly maximized, and you immediately benefit from the grid capabilities built into the platform. In addition, Oracle Portal provides open and easy access to all types of information through adherence to open standards, integration capabilities with 3<sup>rd</sup> party applications, and utilization of partner technologies and services. Oracle Portal's open architecture provides you with these benefits:

- **An Open Framework With Portlets and Provider Architecture.** Oracle Portal provides an extensible framework that integrates Web-based resources such as Web pages, applications, business intelligence reports, and syndicated content feeds, within standardized, reusable information components called portlets. The portal also includes additional services, including single sign-on, content classification, enterprise search, directory integration, and access control.
- **Protection Of Your Investments with a Standards Based Solution.** Oracle Portal supports integration of remote applications by supporting open Internet standards such as HTTP, XML, and SOAP. In addition, you can incorporate Web Services and J2EE- based components like Java Server Pages (JSPs), Java Servlets, and Enterprise JavaBeans (EJBs) into the portal as portlets, without writing additional code.
- **Ability to Federate Portals with Hosting Support.** Oracle Portal provides a more cost-effective and manageable solution for hosting multiple organizations that provides all the benefits of a shared instance model - without compromising organizational security. Oracle Portal also provides hosting support as a platform for Application Service Providers (ASPs)

## SCALE TO MEET CHANGING PERFORMANCE REQUIREMENTS

Because the portal leverages the infrastructure of the application server, Oracle Portal scales to support user communities ranging from small departments to large corporate sites running on the Internet, intranets, and extranets. Scale to meet changing performance requirements by:

- **Boosting Performance With Patented Web Caching.** A fully integrated, intelligent cache enables the highest level of performance by minimizing unnecessary re-generation of portal pages and portlet content. Oracle Portal takes full advantage of Oracle Web Cache, Oracle's patented, in-memory caching technology.

- **Lowering Hardware Costs with Flexible Deployment.** By leveraging the grid capabilities of the Oracle Application Server, Oracle Portal can capitalize on the full range of available hardware resources. Portal administrators can choose the best platform for each portal component (Single Sign-On, portal repository, middle tier, etc.), thus optimizing both performance and total cost of ownership.

## **SIMPLIFY ADMINISTRATION WITH A FLEXIBLE MANAGEMENT MODEL**

Oracle Portal's management features make it easy for a single administrator or a group of administrators, each with specific responsibilities, to maintain and manage a portal instance. Simplify administration with a flexible management model by:

- **Administering the Portal Through Managed Delegation.** The portal environment is administered and managed through built-in portlets on pre-defined administration pages. By applying privileges to page-level security, portal administration tasks can be delegated without compromising overall portal security.
- **Streamlining User Management with Single Sign-On.** Reduce IT support costs and improve security with single sign-on (SSO) and centralized user provisioning while complying with Java standards. Centralized user provisioning ensures a single definition of users, roles, groups and access rights instead of a patchwork of security with unknown gaps. Third party LDAP directories can be synchronized with Oracle Internet Directory using built-in metadirectory capabilities.
- **Monitoring Portal Services with Oracle Enterprise Manager (OEM).** Integration with Oracle Enterprise manager (OEM) allows an administrator to manage the services underlying a portal installation from a single administration console. Through the OEM user interface, an administrator can monitor data and events, maintain mid-tier and portal configuration files, and monitor the components used in the portal environment, including Oracle HTTP services, mod\_PL/SQL services, Web Cache services, the servlet engine, the portal database, SSO, and portlet providers.

## **CONCLUSION**

While many options and product solutions exist for customers seeking to build an enterprise portal solution, very few offer the right combination of features, technology and integration capabilities that are needed for a successful deployment. A careful examination of these few versus Oracle Portal will show that no other portal product or platform provides a more productive, complete, or open portal solution. For additional information on Oracle Portal, see the Portal Center website at <http://portalcenter.oracle.com> or <http://www.oracle.com/portal>



Oracle Portal Overview  
December 2004  
Author: Pascal Gibert  
Contributing Authors: Bill Lankenau

Oracle Corporation  
World Headquarters  
500 Oracle Parkway  
Redwood Shores, CA 94065  
U.S.A.

Worldwide Inquiries:  
Phone: +1.650.506.7000  
Fax: +1.650.506.7200  
[www.oracle.com](http://www.oracle.com)

Copyright © 2003, Oracle. All rights reserved.

This document is provided for information purposes only  
and the contents hereof are subject to change without notice.

This document is not warranted to be error-free, nor subject to  
any other warranties or conditions, whether expressed orally  
or implied in law, including implied warranties and conditions of  
merchantability or fitness for a particular purpose. We specifically  
disclaim any liability with respect to this document and no  
contractual obligations are formed either directly or indirectly  
by this document. This document may not be reproduced or  
transmitted in any form or by any means, electronic or mechanical,  
for any purpose, without our prior written permission.

Oracle is a registered trademark of Oracle Corporation and/or its  
affiliates. Other names may be trademarks of their respective owners.