

Oracle9iAS Portal

From DBA to Development to Deployment

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What is Oracle9iAS Portal?

- WebView → WebDB → Oracle9iAS Portal
- WebDB introduced in 1999
- Oracle9iAS Portal part of Oracle9iAS
- Use to build e-business solutions
- Wizard based
- Framework to integrate web-based resources

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What is Oracle9iAS Portal? (Cont.)

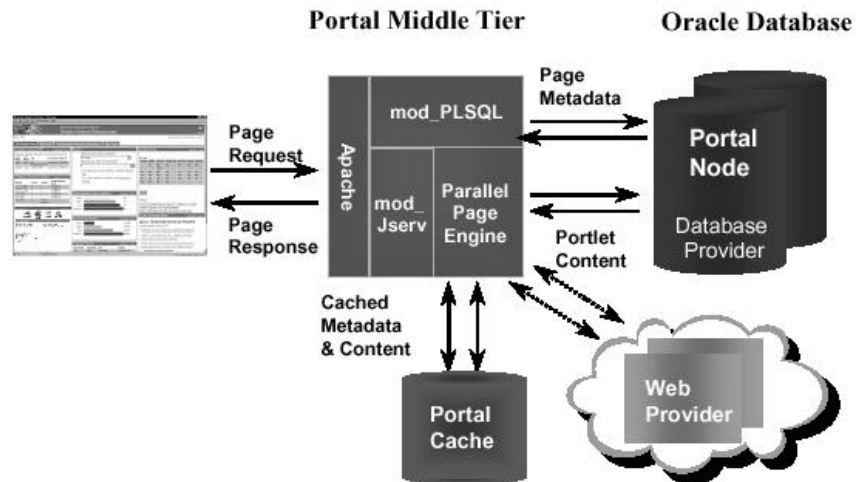
- Contains Portlets
- Portlet
 - Standard, reusable component
 - Managed service
 - Can be created for existing web resources
 - Can be selected from third-party providers
- Framework can use single sign-on
- Has Content Classification, enterprise search, directory integration and access control

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Portal Architecture



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Oracle9iAS Portal DBA

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Configuring Oracle9iAS Portal

- Key components
 - Oracle8i RDBMS
 - Jserver Option
 - SYS Password
 - Oracle9iAS
 - Apache HTTP
 - mod_plsql
 - mod_jserv

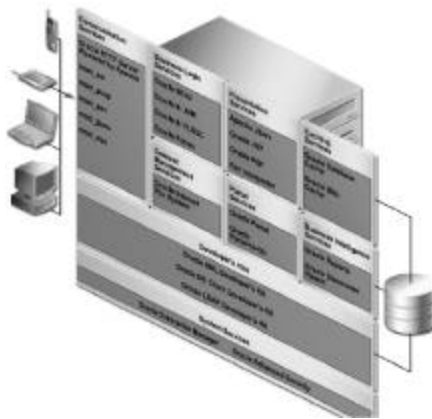


Figure from Oracle Portal Configuration Guide – Oracle Corp

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Configuring Oracle9iAS Portal

- Oracle Database
 - Oracle8i release 8.1.6.2.0
 - Oracle8i release 8.1.7
 - Oracle9iAS and its components must be installed in a separate Oracle Home from the database!
- Web Browsers
 - Netscape 4.0.8 and 4.72
 - IE 4.0.1 with SP1 and 5.0.1 or higher

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Configuring Oracle9iAS Portal

- Tablespace Requirement
 - SYSTEM tablespace at least 250MB free
 - Default tablespace at least 150MB free
 - Init.ora
 - MAX_ENABLED_ROLES >= 25
 - OPEN_CURSORS >= 50
 - COMPATIBLE = 8.1.0 (OR HIGHER)
 - JAVA_POOL_SIZE = 20971520
 - SHARED_POOL_SIZE = 31457280
- Note: if you get a 503 error in the HTTP Server then increase your number of sessions.

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Configuring Oracle9iAS Portal

- Tnsnames.ora
 - Must be in <oracle_home>/network/admin
 - Check the Oracle9iAS home as well as the database home
 - Check TNS_ADMIN registry entry or environment variable
- After installation check
 - <oracle_home>/assistants/opca/install.log for ORA or PLS errors (you might have to reinstall if things went wrong)

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Configuring Oracle9iAS Portal

- Portal Schemas
 - Portal30
 - This schema contains the Portal Objects
(about 2000 objects which includes about 1000 PLSQL PKG & BDY)
 - Portal30_public
 - This schema is used when executing procedures in the Oracle Portal schema
 - Portal30_sso
 - This schema is for the Login Server
 - Portal30_sso_public
 - This schema is used when executing procedures in the Login Server
 - Portal30_demo
 - Contains some demonstration code

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Configuring Oracle9iAS Portal

- DAD
 - Database Access Descriptor



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Configuring Oracle9iAS Portal

- DAD
 - Connection Information



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A few tips.....

- **WV_GATEWAY_CFG**
 - <9iAS_home>\Apache\modplsql\cfg\wdbsvr.app
- If you install Oracle's Development Tools after Oracle9iAS (WINNT) and get an NLS error check <oracledeveloper_home>\bin\oracle.key
 - SOFTWARE\ORACLE
- If you can not log into Portal
 - <9iAS_home>\portal30\admin\plsql
 - ssodatan -w <http://server.domain/pls/portal30/>
 - l http://server.doman/pls/portal30_sso/
 - s portal30 -p portal30 -o portal30_sso -d portal30_sso
 - c <connect string>

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If all went well..... Welcome to Oracle Portal



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Login



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Demo App – MyCompany

(only available for WINNT)



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Oracle 9iAS Portal Development

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Development with Oracle9iAS Portal

- Most Portal development is done using a web interface
- This can be combined with other development approaches including:
 - PL/SQL and PSPs (PL/SQL Server Pages)
 - Java and JSP (Java Server Pages)
 - XML
 - CGIs (e.g. Perl)

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Oracle9iAS Portal Development

ORACLE Oracle Portal

June 3, 2001

Refresh Customize Account Info Logout

Build Administer Administer Database Monitor

my Links Favorites Customize

Oracle Oracle Portal Help Oracle Technology Network

my Work Recent Objects Customize

SYSTEM STATUS REPORT Report

PROJECTED PAYROL BY DEPT CHART Sgl Chart

NEW HIRE REPORT Sgl Report

LOW DEPTNAMES List of Values

LOW HELPTICKET PRIORITY List of Values

my Web

Create your own Portal Pages

Pages

Create a New Page Use a step-by-step wizard to create a new page. Pages let you aggregate content from a multitude of sources.

Create a New Page Style Use a step-by-step wizard to create a new page style, that can later be applied to a page.

Edit Page To edit a page, select from a list of existing pages or type in the name of one you know.

Name

View Edit

Add Content Quickly and Easily

Content Areas Create a New Content Area

Build your own Applications

Applications Create a New Application

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ORACLE Oracle Portal Navigator

June 5, 2001

Customize Account Info Logout

Pages Content Areas Applications Database Objects

Browse the Pages, Page Layouts and Page Styles that are available to you. Top-Level Pages are portal-wide pages controlled by the administrator you have created. User Pages are pages created by all users.

Find

Path: Pages

Type ▲ ▼	Name ▼	Actions	Owner ▲ ▼	Modified ▲ ▼
Pages	Top-Level Pages	Create		
Pages	My Pages	Create		
Pages	User Pages			
Page Layouts	Page Layouts	Create		
Page Styles	Page Styles	Create		

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Oracle9iAS Portal Development

June 5, 2001

[Customize](#) [Account Info](#) [Logout](#)

[Pages](#) [Content Areas](#) [Applications](#) [Database Objects](#)

Browse the application components available to you and perform authorized actions.

Create New: [Form](#), [Report](#), [Chart](#), [Calendar](#), [Dynamic Page](#), [XML](#), [Correspondent](#), [Hierarchy](#), [Menu](#), [URL](#), [Frame Driver](#), [Link](#), [List of Values](#)

Find

Path: [Applications](#) > EXAMPLE_APP

Type	Name	Actions	Owner	Modified
Calendar from SQL Query	EXAMPLE_CAL	Manage, Run, Edit, Delete, Grant Access	EXAMPLE_APP	2-Apr-2001
List of Values	EXAMPLE_DEPTNO	Manage, Run, Edit, Delete, Grant Access	EXAMPLE_APP	29-Mar-2001
Dynamic Pages	EXAMPLE_DYNAMIC_PAGE	Manage, Run, Edit, Delete, Grant Access	EXAMPLE_APP	29-Mar-2001
Forms on Tables/Views	EXAMPLE_FORM	Manage, Run, Edit, Delete, Grant Access	EXAMPLE_APP	2-Apr-2001
Frame Driver	EXAMPLE_FRAME	Manage, Run, Edit, Delete, Grant Access	EXAMPLE_APP	29-Mar-2001
Hierarchies	EXAMPLE_HIERARCHY	Manage, Run, Edit, Delete, Grant Access	EXAMPLE_APP	29-Mar-2001
List of Values	EXAMPLE_JOB	Manage, Run, Edit, Delete, Grant Access	EXAMPLE_APP	29-Mar-2001
Master Detail Forms	EXAMPLE_MD_FORM	Manage, Run, Edit, Delete, Grant Access	EXAMPLE_APP	29-Mar-2001
Menus	EXAMPLE_MENU	Manage, Run, Edit, Delete, Grant Access	EXAMPLE_APP	29-Mar-2001

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Portal Development Components

- Forms
- Reports
- Charts
- Calendars
- Dynamic Pages
- XML
- Hierarchies
- Menus
- URL
- Frame Drivers
- Links
- List of Values

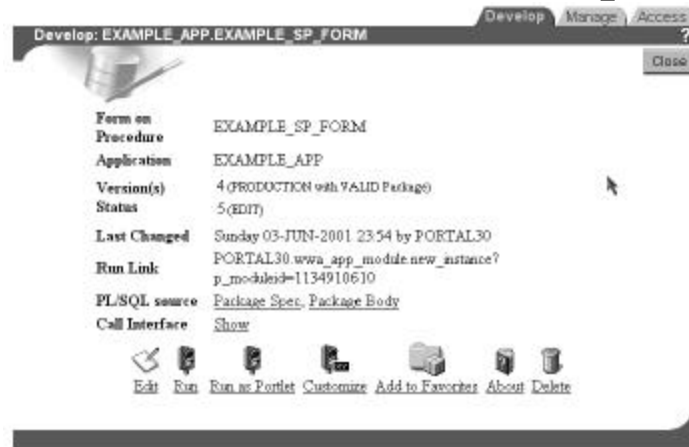
Components

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Oracle9iAS Portal Development

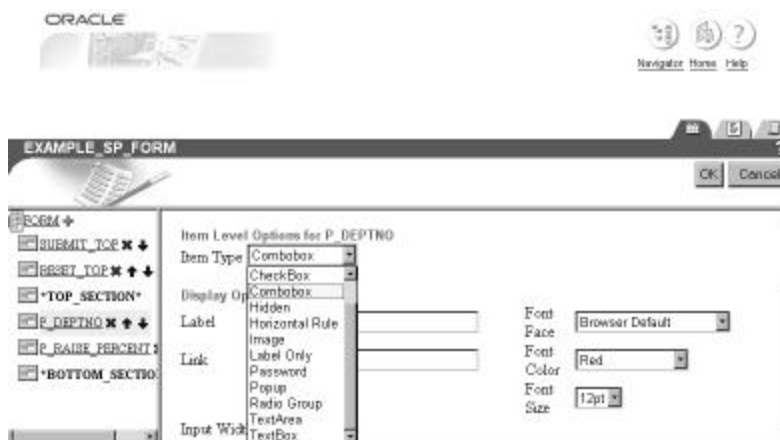


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Web Publishing

- Content Areas in Portal provide the infrastructure for web publishing.
- Documents/Images/Text may be uploaded via the browser.
- Version Control available.
- Folder Security Down to Item Level.
- Perspectives and Categories for classifying.
- Key word searching.

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Sample Folder



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Oracle Portal



Customer Portal



Employee Portal



Sales Portal



Supplier Portal

Browser-Based Creation Of Custom Web Sites

Providers

- The provider is the primary communication link between the portal framework and portlets
- There are two main types of provider interfaces
 - Database
 - A database provider is a one that specifically owns one or more PL/SQL and Java Stored Procedure portlets
 - Web
 - A Web Provider is one that is written as a web application. It is installed and hosted in a web server and is remote from the Portal.

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Portlets

- An area of HTML/XML located within a defined area of a Web page.
- Each portal page consists of content presented through one or more portlets.
- Portal consists of 3 Portlet types
 - pre-built (components, folders)
 - partner (available via Oracle Portal Catalog)
 - custom (created via PDK)

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Portlet Creation

- PDK (Portal Development Kit)
 - Java
 - Servlets
 - JSP
 - PL/SQL
 - URL Services
 - Dynamic Services

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PDK URL Services

- The PDK URL Services allow developers to take any application written in any language and easily create integrated portlets
- Create your application in any language.
- Configure your application to be accessible through a URL.
- Register your application as a "Web" provider through Oracle 9iAS Portal.

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Oracle Dynamic Services

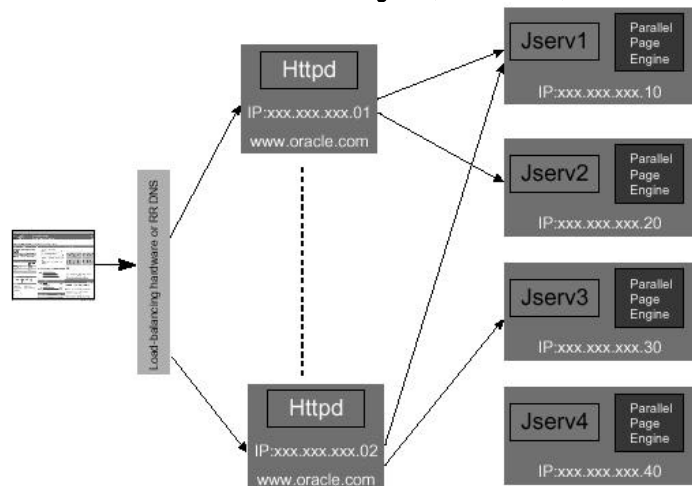
- Providers that interact with Oracle Dynamic Services show every registered service as a new portlet available to Oracle Portal.
- Providers can make their content and services available as portlets *without* writing any code or adding infrastructure.
- With Dynamic Services, the same portal services can be provided as Oracle Portal portlets, or delivered to wireless devices through Oracle iAS Wireless Edition (Portal-to-Go).
- Portlet creation is based on XML created using the Dynamic Services Creation Assistant (DSCA).

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Scalability (Jserv)



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Scalability

- Multiple Portal Nodes
 - Multiple databases
- Multiple jserv processes
- Multiple HTTP listeners
- Multiple Remote Databases
 - Accessed via DB links
- Portal nodes can share providers across nodes.

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Security

- Login Server
- Portal Infrastructure Security
 - Security at the following levels
 - Pages
 - Folders
 - Items
 - Portlets
- Database Security
 - Row Level Security using views
 - Row level Security using Oracle's VPD
- Web Encryption
 - SSL

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How to License Oracle Portal

- Oracle Portal as a Component of 9iAS
- Oracle Portal Licensing Costs
- Oracle Portal Procurement Example
- How to Reduce the Cost of Oracle Portal!

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