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How To Effectively Measure and Monitor Activity in Your Portal Environment



Agenda

- Introduction
- Monitoring & diagnostics with Oracle Enterprise Manager
 - Oracle Portal and OEM
 - Real time and historical metrics
 - Diagnostic log file correlation
- Measuring Portal activity
 - Business Centric Portal Analytics
 - My Oracle: A case study
 - Overview of Omniture SiteCatalyst
 - Summary and next steps



Monitoring and Measurement

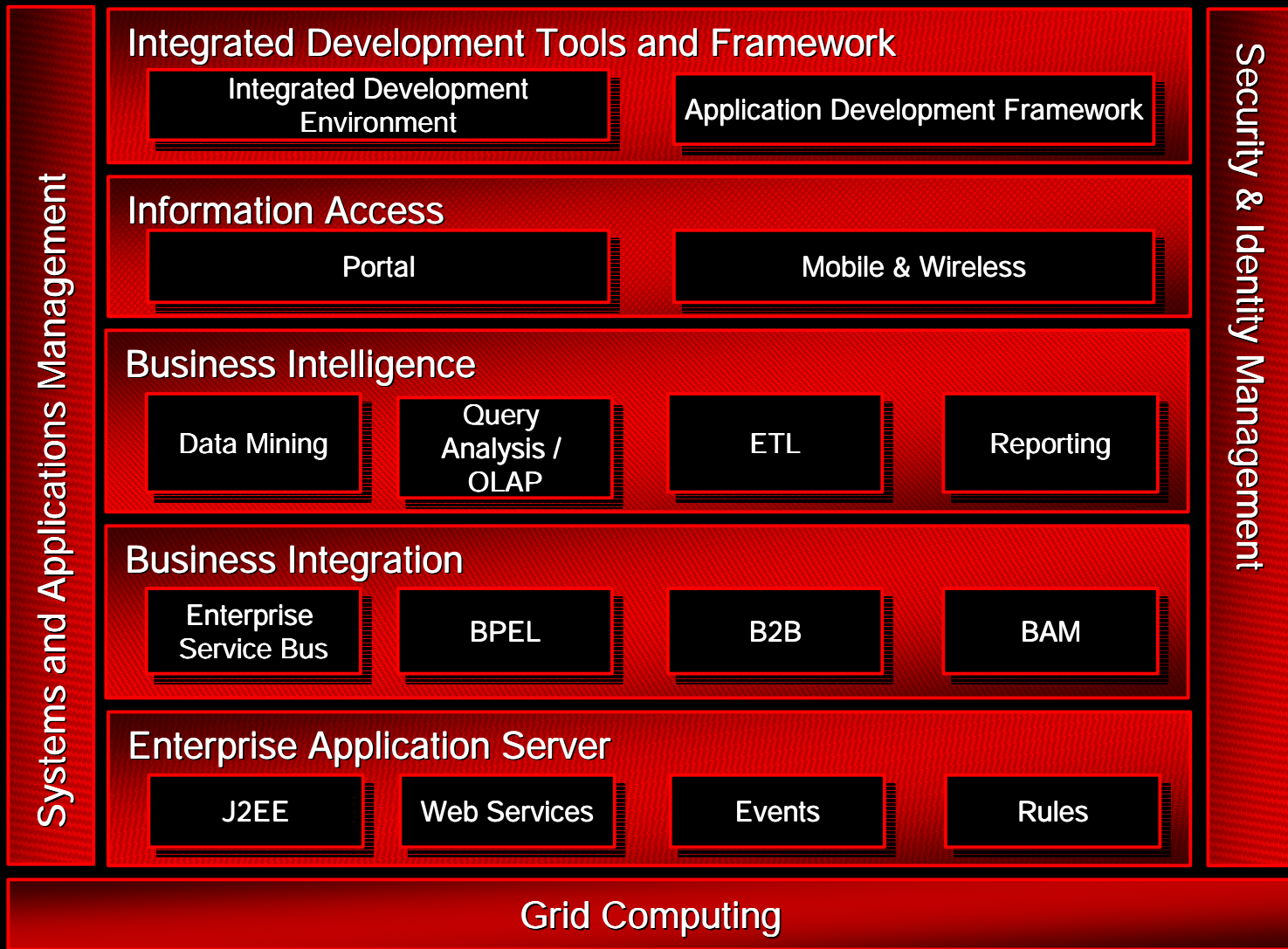
- Monitoring
 - The act of observing something (and sometimes keeping a record of it)
 - E.g. OEM monitors Oracle Application Server
- Measurement
 - The act of measuring or the process of being measured
 - A system of measuring: Number of page views
 - E.g. NetIQ WebTrends & Omniture SiteCatalyst



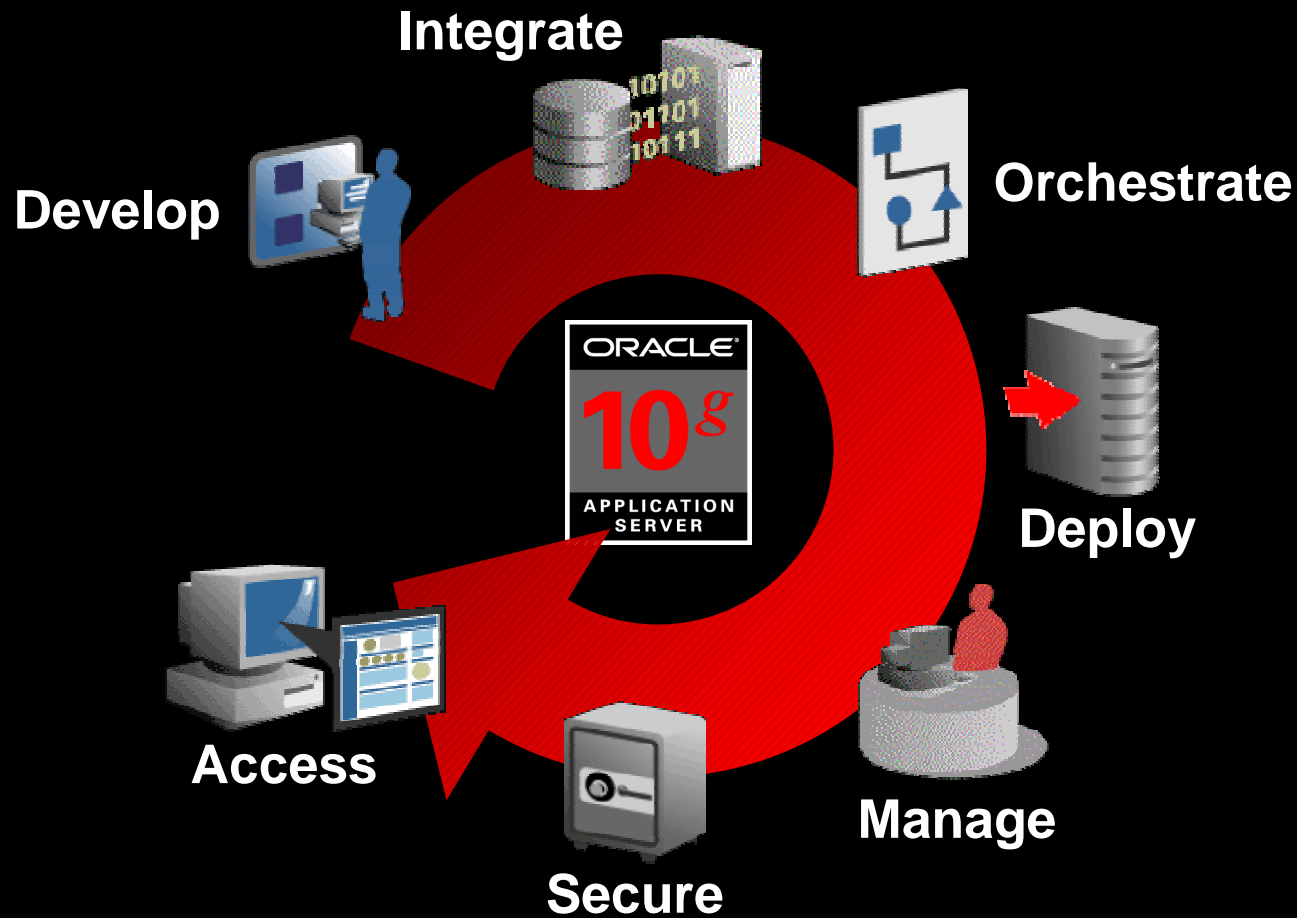
Oracle Application Server 10g Architecture



Oracle Application Server 10g Architecture



Accelerate Development and Deployment of SOA

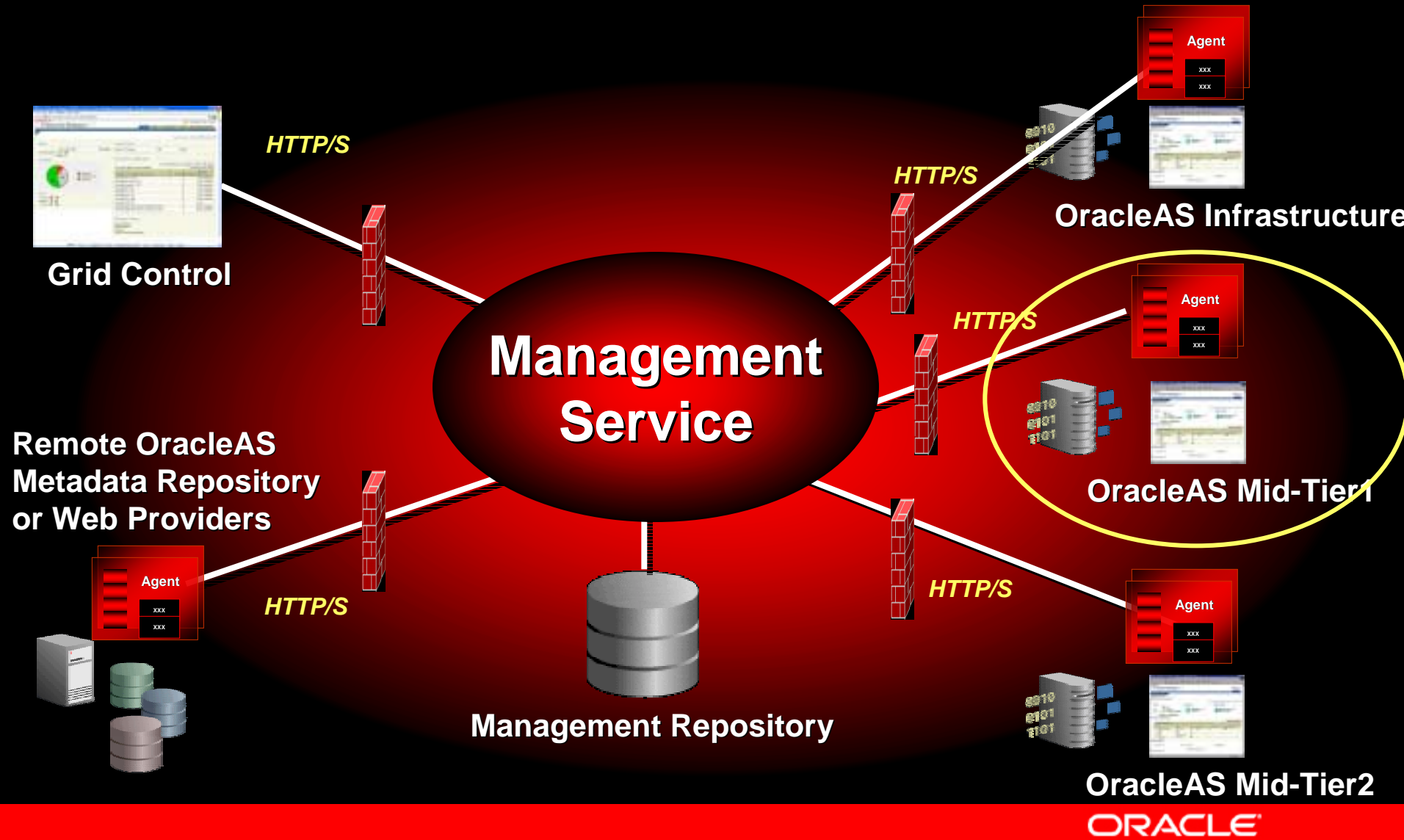


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Oracle Portal & Enterprise Manager

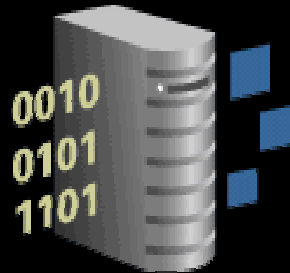


Portal & Application Server Control



Management
Agent

OracleAS
Mid-Tier



Application
Server
Control



Real Time Monitoring – Portal Page

- General Metrics
 - General status and performance
- Repository Metrics
 - General status and version
- Component Status
 - Status of other OracleAS components used by Oracle Portal
 - Not SSO! Change from 9.0.2: SSO can now only be viewed from the Infrastructure Application Server Control
- Severity Status
 - Mod_plsql & PPE only



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Real Time Monitoring

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Historical Metric Reports

- A subset of all Oracle Portal metrics are collected by the Management Agent and uploaded into the Management Repository
 - Collected metrics are configured out of the box
 - Not configurable due to performance reasons
- Charts & reports may be executed against the collected metrics
 - Shows up to 31 days' history
 - Similar metrics may be compared against any other mid-tiers'



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Historical Metric Reports

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Thresholds & Notifications

- Thresholds may be defined against any displayed metrics
 - Many are defined out of the box
- If a threshold is breached:
 - Alert is automatically visible on the Oracle Portal page
 - Additionally, a notification may be configured
 - Possibly by outgoing mail server, script (OS Command or PL/SQL), or SNMP trap



Oracle Portal Activity Reports

- Oracle Portal activity reports execute against data collected by mod_plsql's performance logging service and return information such as:
 - Peak login time each day
 - Number of logins the portal receives each day
 - Portlet execution time
 - Slowest portlet
 - Total hits received by the portal each day
 - Most/least popular portlets
 - Frequency of pages or portlets viewed by users
 - Number of unique users login each day
 - ...and more
- For more information see
 - [Technote: Performance Monitoring with modPL/SQL in Oracle Portal](#)
 - http://www.oracle.com/technology/products/ias/portal/html/admin_monitor_modplsql.htm



Diagnostic Log File Correlation

- Log Viewer
 - Access all OracleAS diagnostic logs from a single location
- Log Loader
 - Automatically loads log data into a file-based repository for easier investigation
 - Cross-correlation queries via ECID
 - Execution Context Identifier

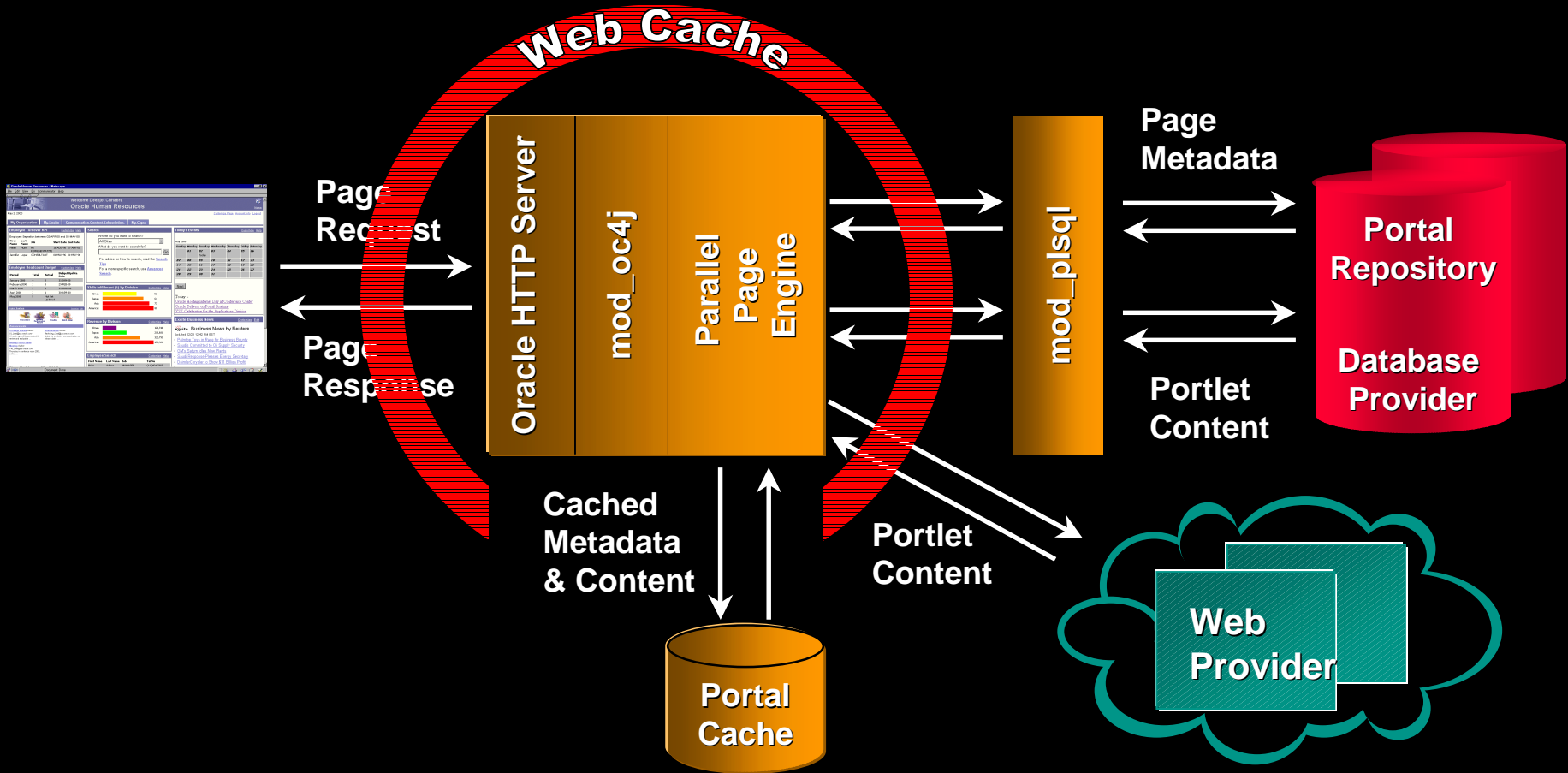


Portal Page Generation

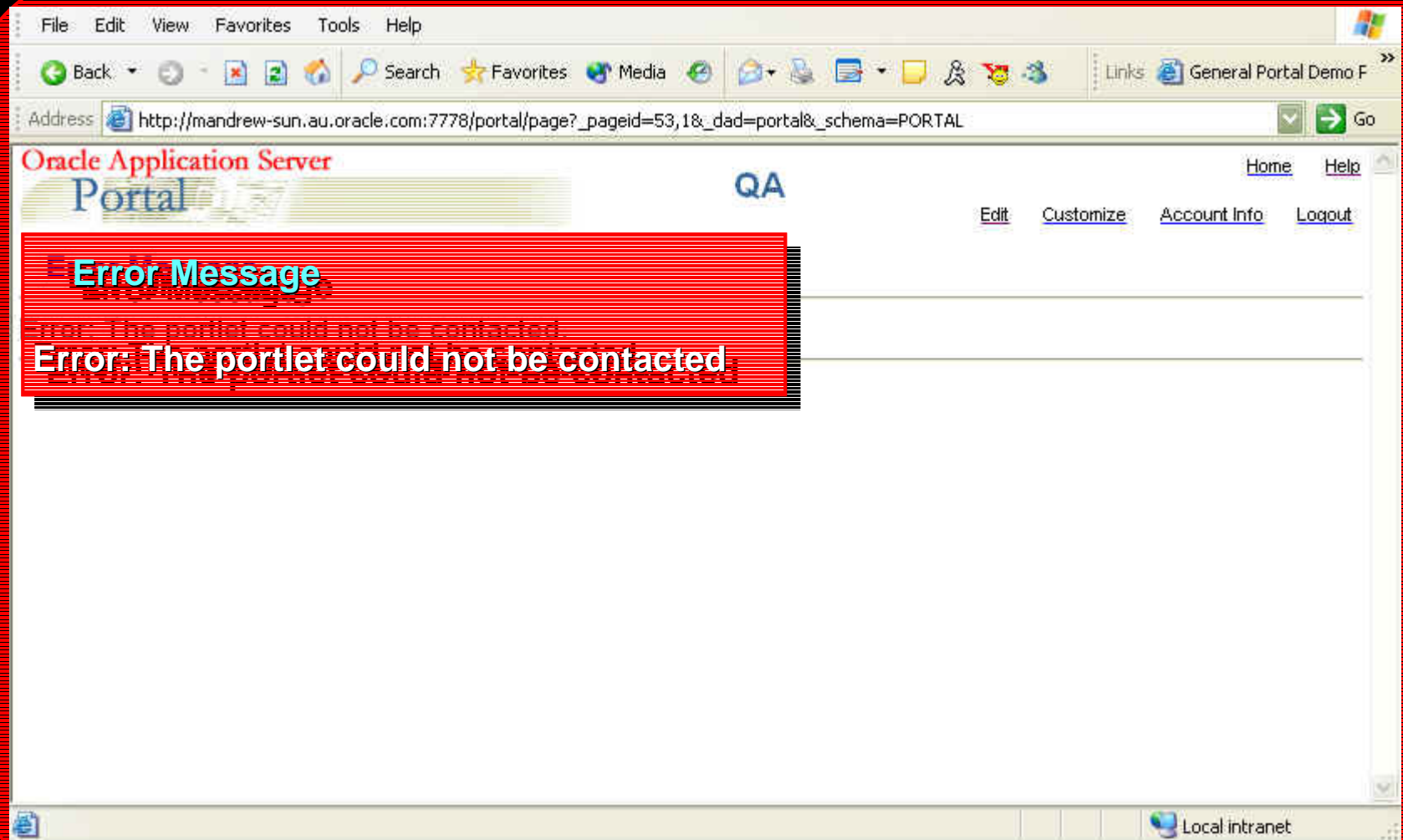
Browser Client

Oracle Portal Middle Tier

Oracle Portal Database Tier



Oracle Portal Page with Error



The screenshot shows a web browser window displaying an Oracle Portal page. The browser's address bar shows the URL: http://mandrew-sun.au.oracle.com:7778/portal/page?_pageid=53,1&_dad=portal&_schema=PORTAL. The page header includes "Oracle Application Server Portal" and "QA". Navigation links include "Home", "Help", "Edit", "Customize", "Account Info", and "Logout". A red box highlights the error message: "Error: The portlet could not be contacted." The browser's status bar at the bottom indicates "Local intranet".

File Edit View Favorites Tools Help

Back Search Favorites Media

Address http://mandrew-sun.au.oracle.com:7778/portal/page?_pageid=53,1&_dad=portal&_schema=PORTAL Go

Oracle Application Server Portal QA Home Help

Edit Customize Account Info Logout

Error Message

Error: The portlet could not be contacted.

Error: The portlet could not be contacted.

Local intranet



Logging Breakdown

Web Cache

"64628721371, 1"
"64628721371, 0"

2003-02-27
2003-02-27

14:30:23.721232 2.364728
14:30:25.749163 0.004149

1.061008
18.099575

3.425958
18.104115

PPE (OC4J)

3/27/03 6:30 AM portal: [perf] 130.35.93.217
Stall Timeout reached
url=http://webdbsvr1.us.oracle.com:3000/pls/smaslin2403/ISMASLIN2403.wwpro_app_provider.execute_portlet/275141447/17
time=16694ms timeout=16000ms process=Dispatching
com:3000/pls/smaslin2403/ISMASLIN2403.wwpob_page.show?_pageid=1,33055
Id=64628721371, 0
pageMeta name=1,33055 status=200 user=(null) subscriberID=1 reqTime=1072ms waitTime=1ms
directs=0 bytes=0 authLevel=0 webCacheStatus=MISS, NON-CACHEABLE [N]
webCacheExpires=(null) webCacheAge=(null) csConv=No

mod_plsql

[Thu Mar 27 06:30:27 2003] [error] [client 127.0.0.1] mod_plsql:
[perf] 130.35.93.217 /pls/smaslin2403/ISMASLIN2403.wwpro_util.get_provider_info user=SMASLIN2403 subscriberId=1
connSU=NEW,342ms connRO=NEW,16ms connNSSO=(null),0ms procTime=645ms sessionTidyTime=127ms cache=(null)
cookie=HIT,2ms pageCalls=0,0ms bytes=12634 describe=No,0ms streamTime=2ms pid=446d sessFile=797/6608
userFile=403/1822 sysFile=800/1678 cacheLevel=(null) cacheTime=0ms dbProcTime=620ms, 1 spid=(null) qs=(null)
requestTrace=(null) cookieLen=0 cookieValue=(null) reqUserTime=1013ms assertUser=(null) subid=1 authLevel=10
oraError=0
ecId=64628721371, 1

Portal Repos

....
[27-MAR-2003 06:30:27] [DEBUG] wwpro_util.get_provider_info user=SMASLIN2403 subscriberId=1
language=us
userAgent="Mozilla/4.0 (compatible; MSIE 6.0; Windows NT 5.0; Q312461) RPT-HTTPClient/0.3-3" ip=130.35.93.217
[SQL] Select from wwpro_prov
[27-MAR-2003 06:30:27] [ERROR] wwptl_html_portlet.show user=SMASLIN2403 subscriberId=1
language=us
userAgent="Mozilla/4.0 (compatible; MSIE 6.0; Windows NT 5.0; Q312461) RPT-HTTPClient/0.3-3" ip=130.35.93.217
Unable to lock customizations object.
....

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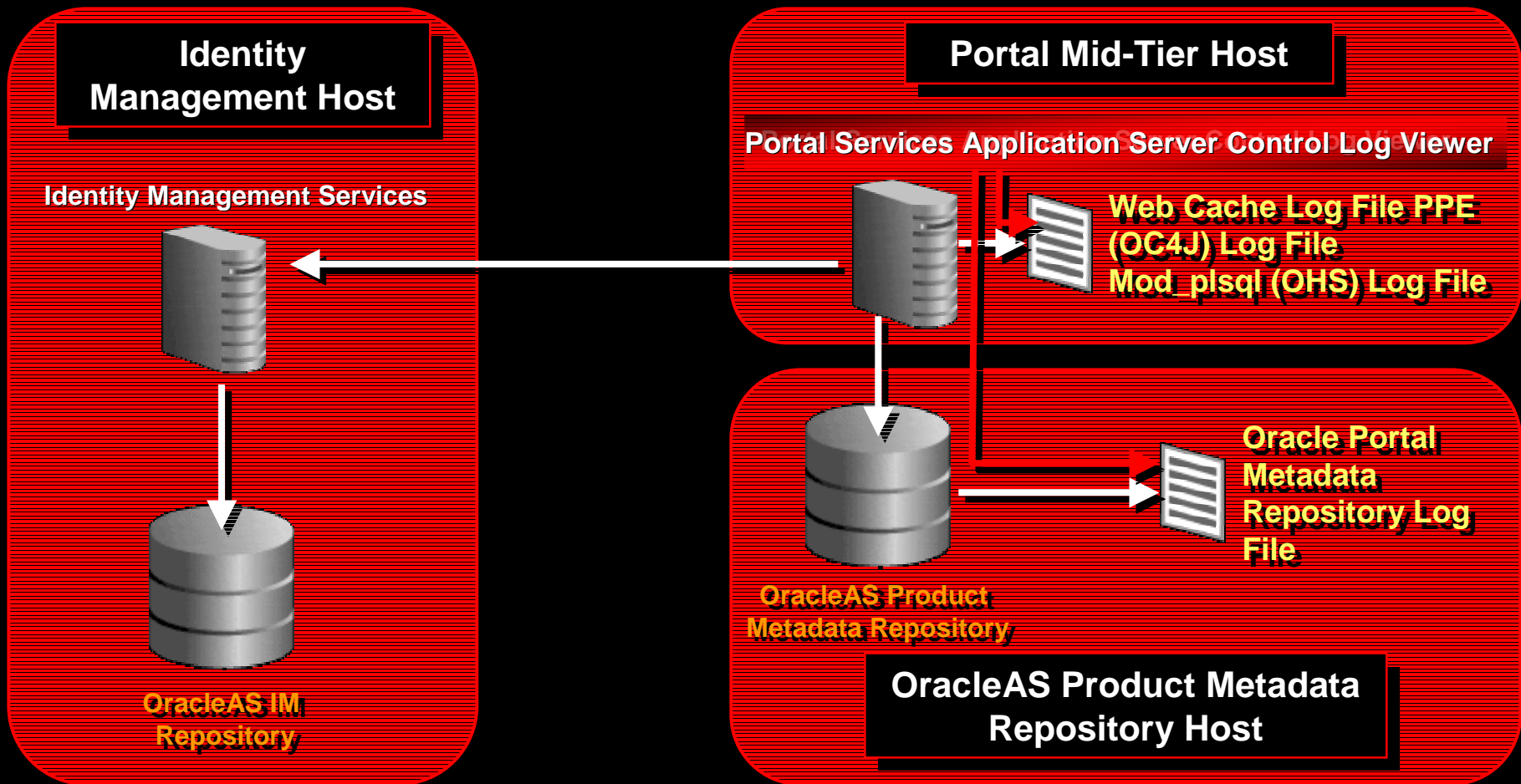
Diagnostic Log File Correlation

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Oracle Portal Metadata Repository Logging

Typical Portal Installation



Summary

- Oracle Enterprise Manager enables real time and historical metric reporting of Oracle Portal
- Oracle Enterprise Manager facilitates diagnostic analysis of Oracle Portal via diagnostic log file correlation
 - Post-installation configuration is required
- Oracle Portal activity reports are supplied as part of Oracle Portal
 - Post-installation configuration is required



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Business Users Need Answers

- Web Site Management, Marketing, Sales & HR users
- Timely, relevant information = smarter decisions
 - How many people are visiting my portal?
 - What are the top 10 pages on my portal?
 - What content are my users downloading?
 - How are they finding my portal?
 - When is the peak/off-peak time visiting time?
 - What time is best for taking a downtime?



BCPA: Three Solutions

- Portal Logs
- Log Analyzers
- JavaScript & Cookie based



BCPA Solution: Portal Logs

- 'Free' Information
 - Portal logs included with the product
 - Require no additional software purchase
 - Provide performance statistics
- All Requests not recorded in Portal Logs
 - Requests pass through WebCache first
 - Page views from visitors that use “back” or “refresh” buttons, because server requests not made
- Portal Logs Analysis Process
 - Data needs to be collected
 - Logs need to be parsed
 - Correlate data between portal tables & logs for user recognizable page names
 - Data extracted to produce charts
 - Render charts



BCPA Solution: Log Analyzers

- The Log File Analysis Process
 - Visitors' browsers make requests to the portal to view specific site pages. The server receives these requests and serves the specified pages back to the visitors
 - The web server records request in log files
 - The web site owner uses proprietary log file analysis software to extract meaningful information from latest logs
 - Reports are generated from the log file analysis software, which the site owner distributes to the appropriate users within the organization
 - Pre-built reports will have to altered to translate Portal URLs into recognizable page names
- Examples: WebTrends, NetTracker, Urchin



BCPA Solution: JavaScript & Cookie Based

- Client side tracking of user traffic
- Information tracked through user's browser
- JavaScript & Cookie Based Process
 - Add tracking code to pages to be tracked
 - Browser executes code when user visits website
 - Collects data about page view
 - Initiates image request to data collection servers
 - Data passed to servers as part of the request
 - Data collection servers return 1x1 pixel transparent image
 - Host processes data & builds reports
 - Reports available through Host's website
- Examples: WebTrends, NetTracker, Urchin, Omniture SiteCatalyst



BCPA Solutions: Comparison

BCPA Solution	Portal Logs	Log Analyzers	JavaScript & Cookie Based
Real time Reports/Charts	No	No	Yes
Tracking Method	IP Address	IP Address	Cookie based
Report Types	Static	Typically Static	Dynamic
Data Segmentation	No	Possible	Yes
All page Reqs Recorded	Yes*	Yes*	Yes
Perspective	Server	Server	Visitor
Dynamic Page Tracking	Difficult	Difficult	Yes
Web Spiders	Recorded, skews results	Recorded, skews results	Not recorded
Requirements	<ul style="list-style-type: none"> • Acquire CPU & Storage Capacity to manage log files • Requires reporting (e.g. Oracle Reports) • Employ and train staff to manage log files 	<ul style="list-style-type: none"> • Acquire CPU & Storage Capacity to manage log files and run S/W • License, install, upgrade analysis & viewing s/w • Employ and train staff to manage log files, run analysis & viewing s/w 	<ul style="list-style-type: none"> • Hosted Solution • Requires Web Browser

* Have to correlate all server logs across session ids



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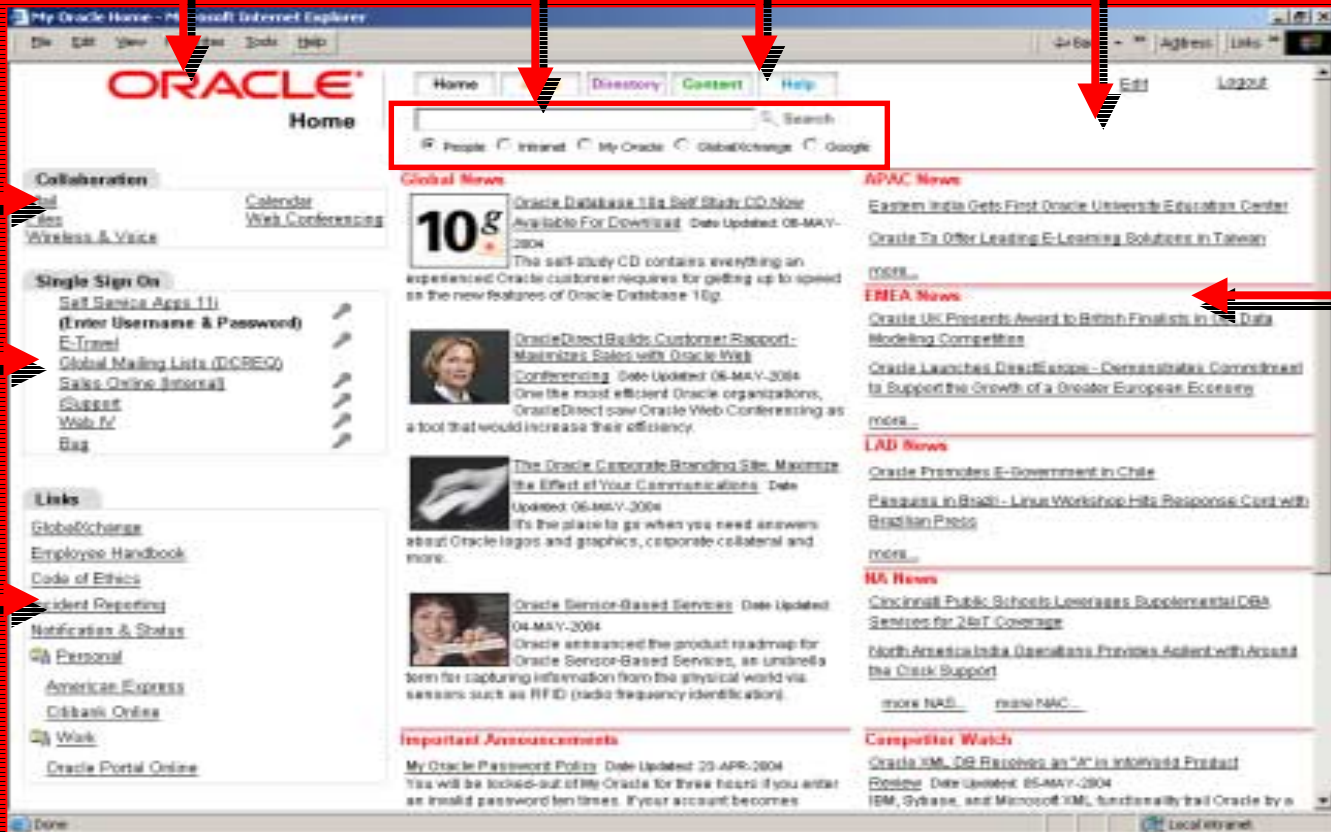
My Oracle for Employees

Page Locator
Image

Search

Page buttons

Oracle Portal



Collaboration
Links

Employee
Applications
(SSO)

Links

Company
News

My Oracle – BCPA Requirements

- Overall Goal
 - Understand employee audience and their needs
 - Effectively architect & redesign My Oracle to meet their requirements
- Business Decision Maker Requirements
 - Real-time information
 - Charts, graphs, reports with percentages, numbers, and totals
 - User legible page names
 - Answer historical portal usage questions
 - Build Custom Reports
 - Easy to use
- Site Administrators
 - Don't want to install any software, acquire CPU, storage capacity
 - Self Service
 - Minimal impact on site performance

BCPA Solutions: What We Examined

- Five Solutions examined
- Portal Logs & Log Analyzer
 - Build our own, eLogger, & WebTrends
 - 3GB of data on a daily basis
 - Reports typically one or more days behind
 - Reports required alteration to translate Portal URLs into recognizable page names
- Hosted Solutions
 - WebTrends & Omniture SiteCatalyst
 - Real Time Reporting & Historical Reports, with page names
 - Nothing to manage & Self-Service
 - No headcount, software, CPU requirements
- Omniture chosen (Oct 2003)
 - More and better built-in reports & charts, e.g. Path Analysis
 - Better User interface
 - Customizable Dashboard, distributable via email
 - Customizable reports easier to build

Omniure SiteCatalyst

- Completely hosted web analytics solutions
 - Hundreds of thousands of combinations of pre-built reports
 - Easily create customized reports (e.g. search tracking)
 - Used by the Internet's most sophisticated properties including Oracle, Microsoft, eBay, Wal-mart, HP, etc.
- Access to SiteCatalyst is easy
- Easy to deploy, two SiteCatalyst Code Parts
 - JS file (15k) – A base JavaScript file containing most of the tracking code that SiteCatalyst HTML file references
 - HTML piece (<1k)



Omniture on My Oracle

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```
<script language="JavaScript">
var s_pageName= ""
var url = document.location.href;
function siteCatalystPageId() {
    var regexp = eval("/&_mode=16/")
    var resultArray = url.match(regexp)
    if (resultArray) { // On Edit page
        s_pageName= document.title + " Edit Page"
    } else {
        s_pageName = document.title + " Page"
    }
}
siteCatalystPageId();
</script>
```



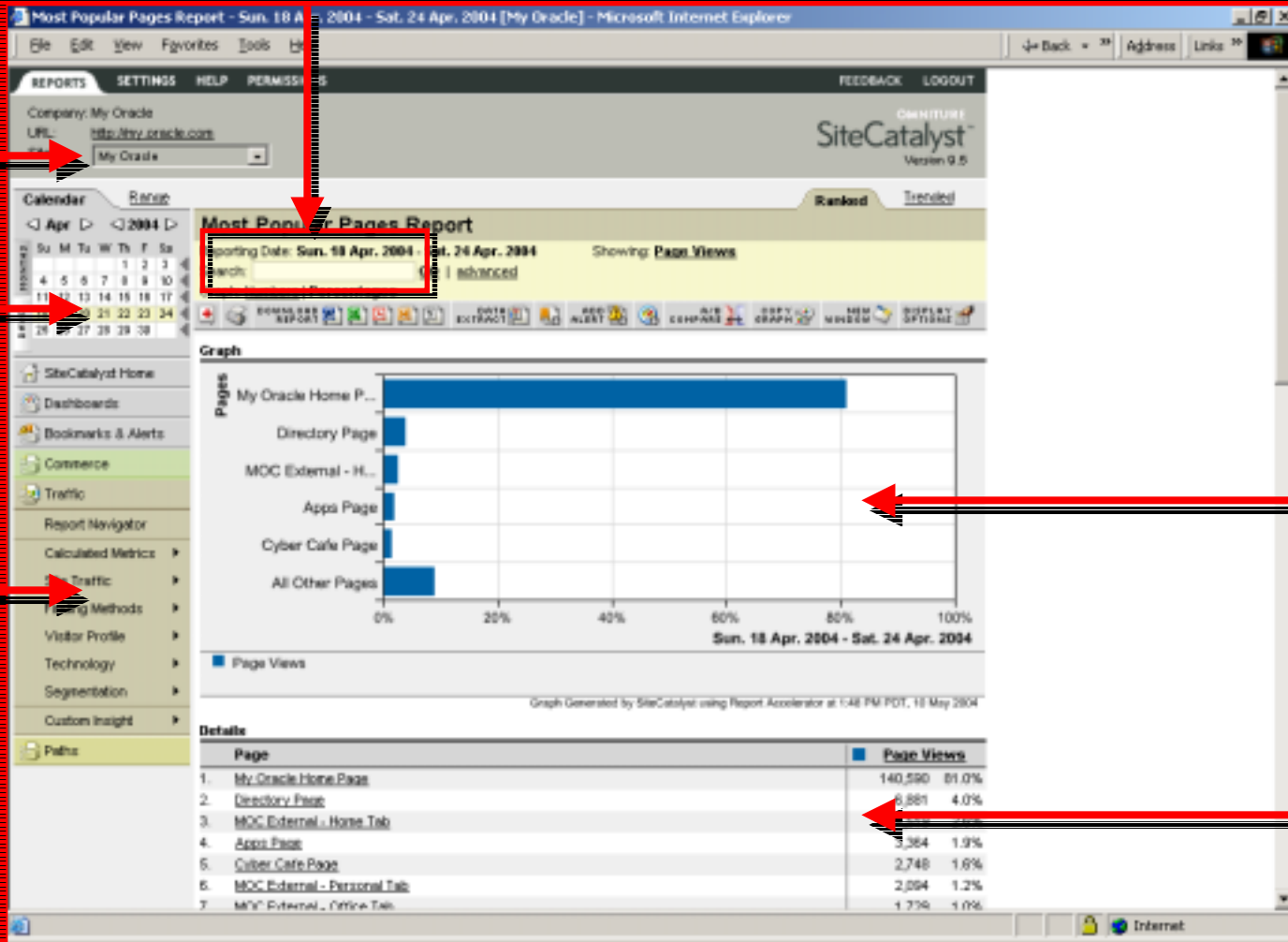
SiteCatalyst – Most Popular Pages Report

Search

Site Picker

Date Picker

Navigation Tree

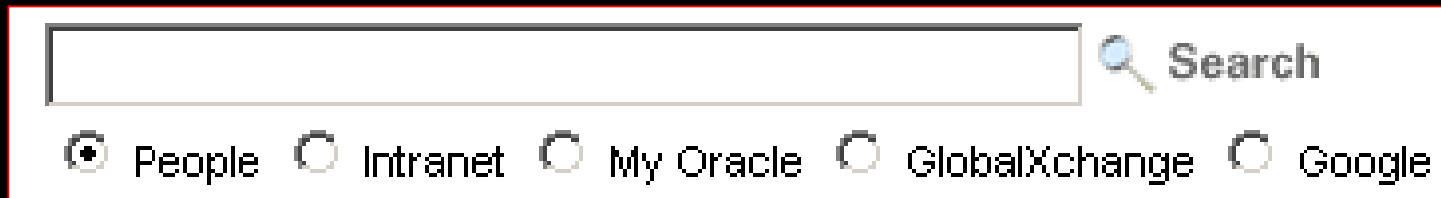


Most Popular Pages Chart

Most Popular Pages Table



Search Tracking



A screenshot of a search interface. At the top is a search bar with a magnifying glass icon and the word "Search" next to it. Below the search bar are five radio buttons with labels: "People" (selected), "Intranet", "My Oracle", "GlobalXchange", and "Google".

```
s_linkType="o";  
s_linkName="Search";  
s_lnk=s_co(this);  
  
if (searchServ != "AR") {  
    s_prop1 = searchServ + " for: " + searchStr + " from:  
    " + document.title;  
}  
else {  
    s_prop1 = searchServ;  
}
```



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Omniure SiteCatalyst

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Oracle.com – BCPA Benefits

- Andrea Wendland, Senior Manager, Oracle Corp. Content Management for Oracle.com
 - "Since the redesign, we have increased the average time spent on pages by a factor of seven. The SiteCatalyst pathing reports were key to us accomplishing these improvements."



Summary – BCPA Benefits

- Increased My Oracle ROI
 - Understand what users are looking at, what they are not
 - Users spend less time looking for content
- Business user benefits
 - Receive current information to make immediate decisions
 - Know how your portal is being used... Make better decisions
- Portal administrators 's benefits
 - Spend more time on developing the right portal



Next Steps

- Learn more:
 - My Oracle white paper on OTN Portal Center
 - http://www.oracle.com/technology/products/ias/portal/pdf/architect_10g_implementation_casestudy_myoracle.pdf
- Contact Omniture
 - Omniture Site – <http://www.omniture.com>



Next Steps....

- Relevant web sites to visit for more information
 - <http://portalcenter.oracle.com>
 - <http://otn.oracle.com/products/oem/content.html>
 - <http://oracle.com/portal>



Sessions - PORTALS

Day	Title	Time	Room
Monday	1431 An Overview of Enterprise Portals: Today and Tomorrow	1:30 PM	2009/2011
	1336 How to Design and Build Compelling Portal Interfaces	2:45 PM	2009/2011
Tuesday	1334 How to Create Collaborative Communities Within Your Portal	10:30 AM	2006
	1338 How to Best Leverage J2EE, Struts, and ADF in Your Portal	12:30 PM	2006
	1066 Best Practices for Deploying Oracle Portal	3:30 PM	2006
Wednesday	1335 How to Integrate Enterprise Applications into Your Portal	4:30 PM	2007
	1375 Creating a Company Portal Instantly with Oracle Application Server Standard Edition One	4:30 PM	2018
Thursday	1092 Integrated Business Intelligence with Oracle Portal	8:30 AM	2010/2012
	1421 Personalized B2B E-Business Portals: Integration within and beyond the Enterprise	8:30 AM	2008
	1333 How to Effectively Measure and Monitor Activity in Your Portal Environment	1:00 PM	2008
	1337 How to Effectively Size Hardware for Your Portal Implementation	4:00 PM	2008



Hands On Labs

Monday	11:00 AM – 4:00 PM
Tuesday	9:30 AM – 5:00 PM
Wednesday	11:00 AM – 1:00 PM
	2:30 PM – 5:30 PM
Thursday	10:30 AM – 5:00 PM

South Hall
Esplanade 305

DEMOgrounds

Monday	5:00 PM – 7:00 PM
Tuesday	9:30 AM – 5:00 PM
Wednesday	10:45 AM – 1:30 PM
	2:30 PM – 5:30 PM
Thursday	10:30 AM – 2:30 PM

South Hall
Booth 930
Pods F25, F26, F28, I2



Reminder:

**Please complete the Oracle World
online session survey.**

Thank you.





QUESTIONS
ANSWERS



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