

I Installed 9iAS and Portal-- Now What?

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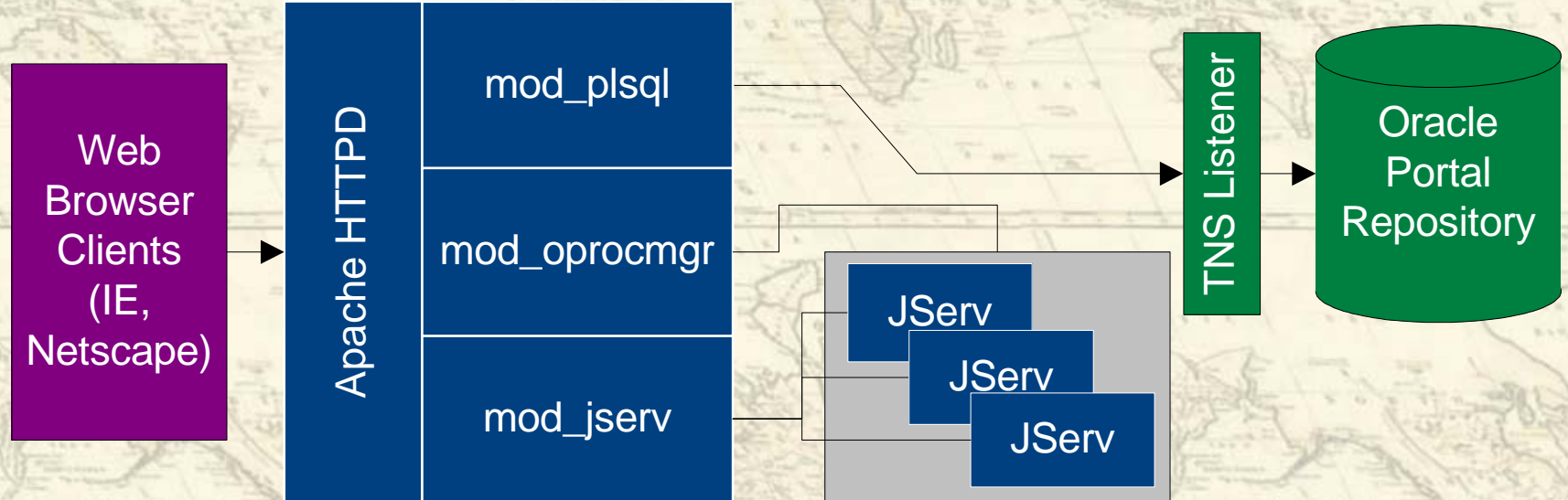
Paper #101



Oracle9*i*AS Overview

- Oracle9*i*AS is a suite of integrated products including Java and PL/SQL application servers
- Based on Apache HTTPD server 1.3.x
- Uses Apache Jserv 1.1.2 as servlet engine
- mod_plsql allows HTTP server to run PL/SQL (OWA) packages

Oracle9iAS Architecture



Apache HTTP Server Tips

- Shut down OEM on port 3339
- Consider rotatelogs (if you're on UNIX)
- Use the Expires HTTP headers to force client caching

- For SSL portal sites, change:

```
SetEnvIf User-Agent ".*MSIE.*" nokeepalive ssl-unclean-  
shutdown
```

to

```
SetEnvIf User-Agent ".*MSIE.*)$" nokeepalive ssl-  
unclean-shutdown
```

Apache JServ Tips

- `mod_oprocmgr`: good concept
- Num of JServs = Num of CPUs
- Set `debug_mode`, `developer_mode` to `false` for OJSP servlet
- Turn off autoreloading for files & classes
- Check/set min and max heap sizes
- JServ status handler is nice, but can be unsafe

mod_plsql Tips

- MaxClients (in httpd.conf) x 3 = Number of database sessions
- Connection pooling can cause problems with creating interMedia indexes
- Default caching parameters are inadequate

PL/SQL, PL/SQL, PL/SQL...

- Oracle Portal is comprised of over 600 PL/SQL packages
- Portal requires the Java option and can use the interMedia option if installed
- The page servlet runs many of the PL/SQL packages (via the mod_plsql module)

ParallelServlet (aka page servlet)

- Runs in the root JServ servlet zone and is responsible for building portal pages
- Retrieves page metadata and then retrieves portlets (in parallel)
- Several parameters govern page servlet performance and operation (poolSize, stall, requesttime)

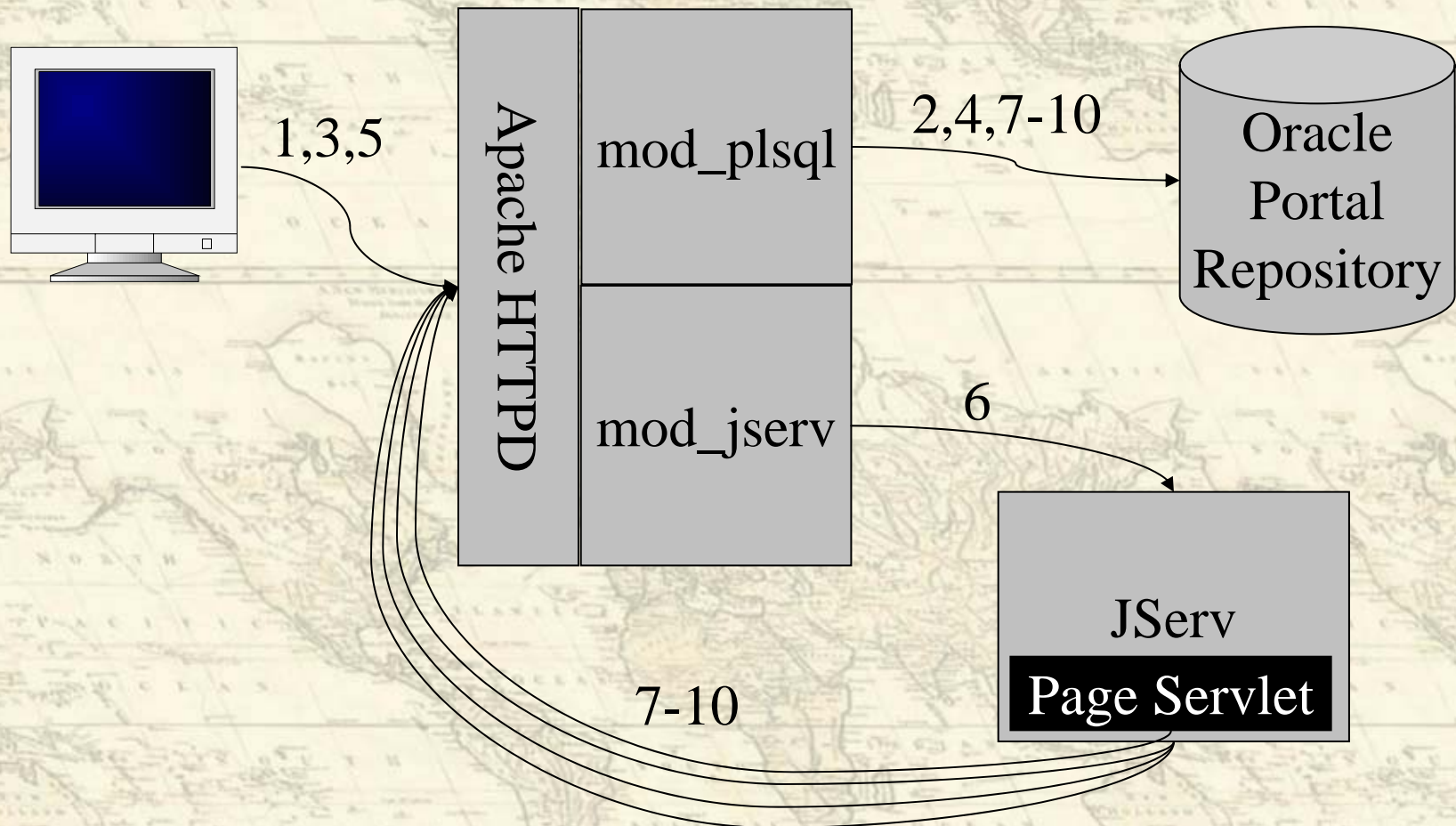
ParallelServlet Tuning Tips

- Install 3.0.9.8.2 patch and use minStall and minTimeout if you're having portlet timeout problems
- Set poolSize appropriately high (it depends)
- httpsports parameter required for SSL
- Do not trust documented defaults
- Create servlet zones for your custom code and portlet providers

Portlets

- A portlet is a small bit of information that can be included in a larger page
- Samples: calendar, weather, stock quotes, cafeteria menu, headlines
- Custom portlets can be developed with the Portal Developer Kit (PDK)

Assembling Portal Pages



How a Page is Born

Studying the web server's access log gives some good information about how pages are "built". All the log entries below came from accessing a single URL in one browser window.

Note: (I) = an access from the portal system itself and (B) = an access from the client browser.

Browser requests the Portal home page:

1) /pls/portal30/portal30.home (B)

The client is redirected to a different URI (and a cookie was planted):

2) /pls/portal30/!PORTAL30.wwpob_page.redirect?... (B)

Another cookie is planted and then another redirect to the final URI:

3) /pls/portal30/!PORTAL30.wwpob_page.show?... (I)

4) /pls/portal30/!PORTAL30.wwpro_app_provider.execute_portlet (x3) (I)

5) /servlet/page?... (B)

Then, the browser is left to retrieve embedded URLs to render the page:

6) /pls/portal30/PORTAL30.wwpob_app_style.render_css?... (B)

7) /images/....gif (x8) (B)

Site Capacity and Planning

- Sizing an Oracle Portal site must take the recursive requests into account
- One example page build caused 3 redirects, 4 recursive requests and 17 requests overall (8 of those were for images)
- Bandwidth: recursive requests need it too!

interMedia and Portal

- interMedia is a *database* feature that allows indexing of BLOB, CLOB, or text content of many different types
- For instance, a PDF file uploaded into a BLOB field can be searched for a specific word or phrase
- Portal uses interMedia indexes to index content areas (and other areas too)

interMedia Setup

- interMedia indexes are not automatically updated by DML ops
- 8.1.7 introduced SYNC_INDEX and OPTIMIZE_INDEX procedures
- ctxsrv is deprecated as of 8.1.7
- Environment (LD_LIBRARY_PATH) is very important
- \$O_H/ctx/bin/ctxhx is the real “brain” of the interMedia subsystem

To Login or Not To Login

- Login Server is a component of 9iAS that handles authentication for web users
- Applications are partner applications or external applications to the login server
- Login Server can be used without portal for custom apps via the SSO SDK
- Authentication only, NOT authorization
- LS repository can be in a database table or in an LDAP directory

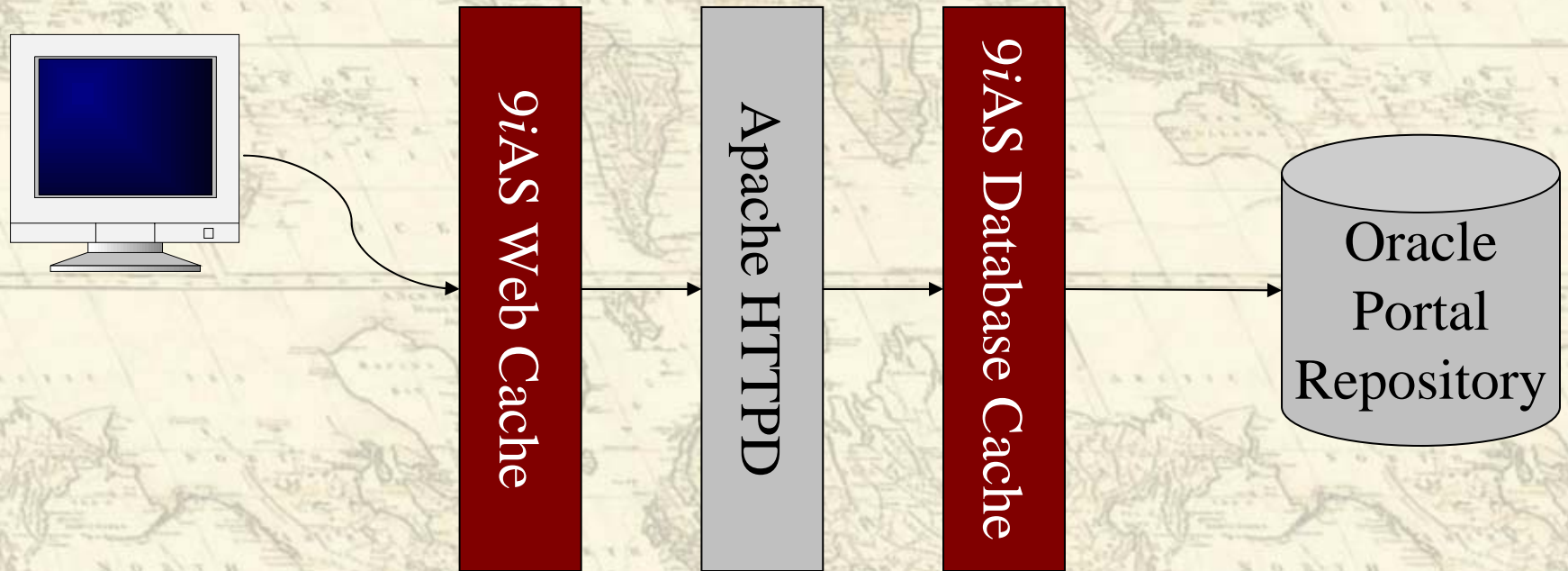
9iAS and OC4J

- OC4J is a J2EE EJB (1.0) container
- Servlets 2.2 (plus most of 2.3), JSP 1.1, EJB 1.0 (and parts of 2.0)
- Integration with 9iAS can result in complex HTTP configurations or end-user confusion
- There is a need for better (tighter) integration

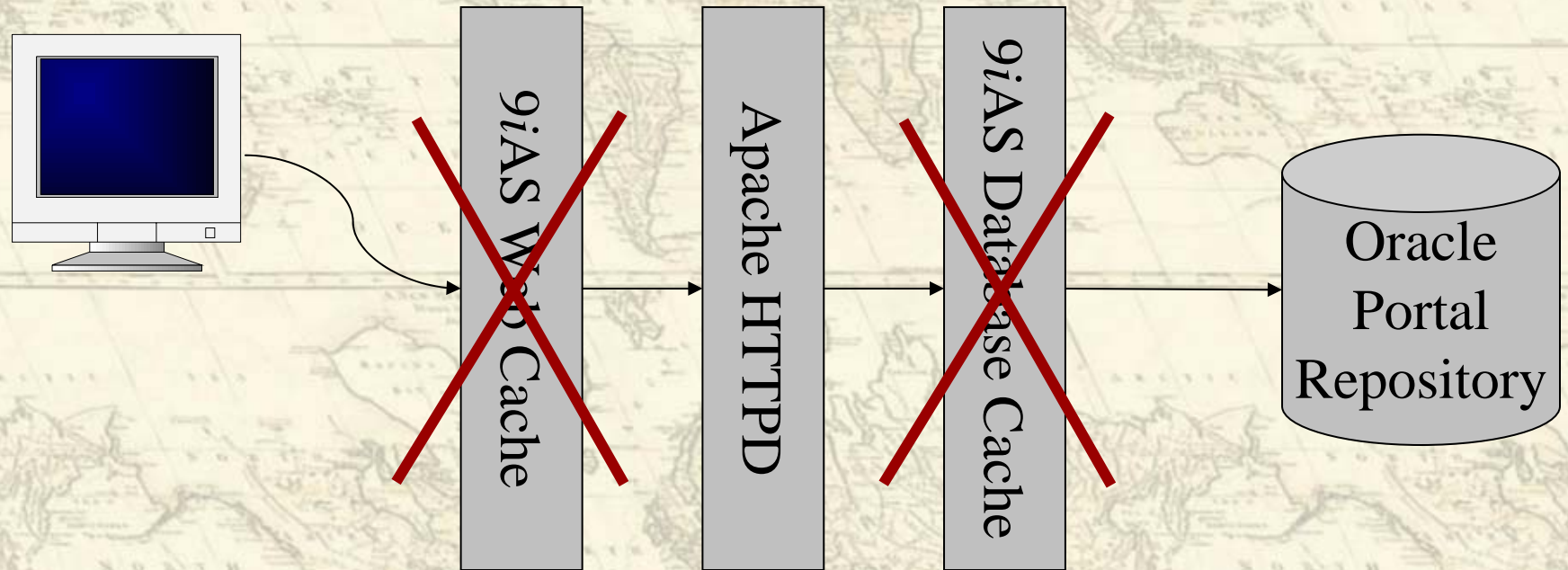
Forms & Reports Servers Tips

- Install the latest patches available for forms and reports servers
- Many MetaLink NOTEs exist for configuration tips
- Environment variables play a large part in configuration of both servers
- Integration with portal is possible

9iAS Caches & Portal



9iAS Caches & Portal



**“Not Supported” with
Oracle Portal 3.0.x**

Administration: Who does what?

- Tight integration makes it nearly impossible to separate duties of DBAs, System Administrators, and Application Administrators.
- Team administration necessary for successful deployment.

Questions fall into two categories:
Good Questions
Interesting Questions

Slides available at <http://www.celeritas.com>

Evaluation Form Information:

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