

ORACLE
APPLICATION DEVELOPMENT
FRAMEWORK

Practical ADF Application Deployment for Fusion Middleware Administrators

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UKOUG 25th Anniversary **UKOUG 2008
Conference and Exhibition**
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Simon Haslam / Veriton



Specialised consultant & Oracle Partner,
established 12 years


Demanding **web & call-centre** applications





Architecture & development strategy;
health-checks; disaster recovery; tuning

Oracle Application Server & WebLogic
(clusters, J2EE, ADF, SSO, OID, Reports, etc)

Database & related technologies
(Solaris/Linux, load balancers, firewalls, ...)

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JDeveloper-free* Zone!



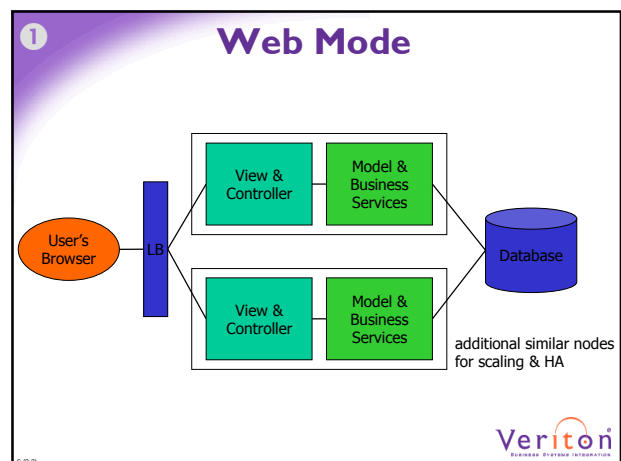
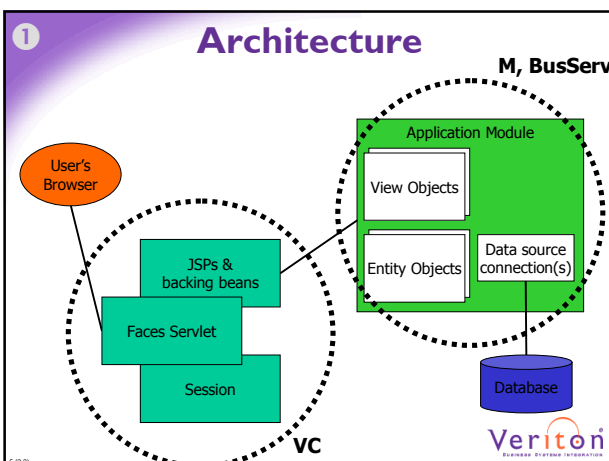
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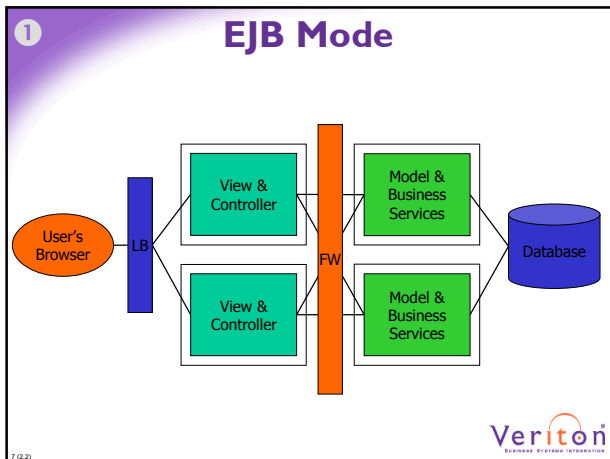
* terms and conditions apply

Agenda

- Architecture
- Database Access & Security
- Deployment
- ADF BC Monitoring

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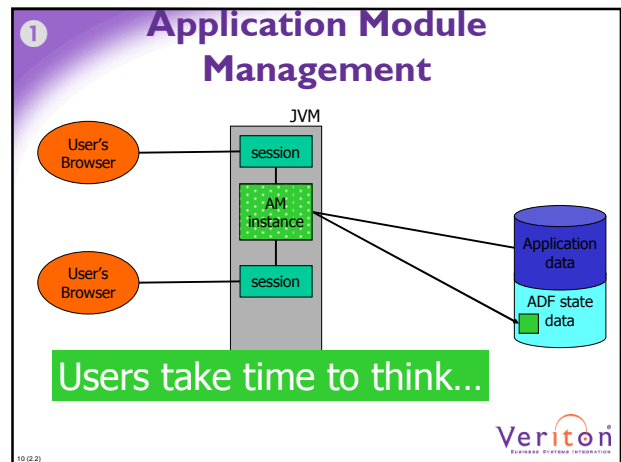
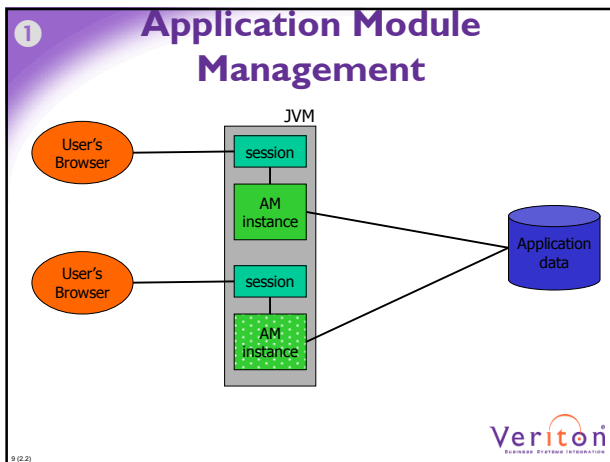




1 AM State

- AM instance holds all the state information for the user, e.g.
 - EO data changes
 - VO rowsets retrieved from db
 - etc, etc
- This state must be maintained *somewhere* between every page request from the user

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1 AM Pooling

- State management is vital consideration
- AM pooling is mechanism to:
 - support more users by sharing resources
 - preserve state

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1 AM State Management


- Very important to consider number of AM instances you need
- Activation/Passivation
- HA & Failover
- Database/File state persistence
- Future thoughts
- See:
 - Fusion Dev's Guide for ADF 11g: chapter 36
 - Stefan Mehl-Ludvigsen's presentation

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2 Database Access

- Database connections:
 - Pooled by ADF BC, or,
 - Pooled by Java Server ⇐ recommended
- Each App Module instance has:
 - connection to app schema
 - intermittent connection to 'internal' schema (when using database persistence store)
- If db-backed then separate out into two separate data sources (AM instance is constant*, state is transient)
 - ⇑ recommended


* depending on configuration



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- See my ODTUG paper for suggestions for database schemas for DEV/TEST/PROD etc
 - Note: pre-WebLogic / ADF 11g prod

<http://www.veriton.co.uk/download/Practical%20ADF%20Application%20Deployment.pdf>




2 Security Options

- Developer testing
 - `jazn-data.xml`
- Small scale
 - use tables in database (e.g. `DBTableOraDataSourceLoginModule`)
- Integrated
 - OID
 - OID and SSO
- Note: proxy users now available for database tracability
- ...WebLogic



3 Deployment

- WAR & EAR files
- Specify data sources & security
- Deployment plan
- Dependencies
 - ADF libraries




3 Deploying to Oracle App Server

- JDev/ADF 10.1.3.4
- OAS 10gR3 (e.g. 10.1.3.4)
- ADF Installer ⇐ recommended
- Typically deploy EAR file(s) from dev team
- Set up a deployment profile for security and data sources (e.g. between test, pre-prod, prod) ⇐ recommended




3 Deploying to WebLogic

- JDeveloper/ADF 11
- WebLogic Server 10gR3 (10.3)
 - Only possible to JEE5 (no OC4J 11g)
- ADF libraries - use JDev installer

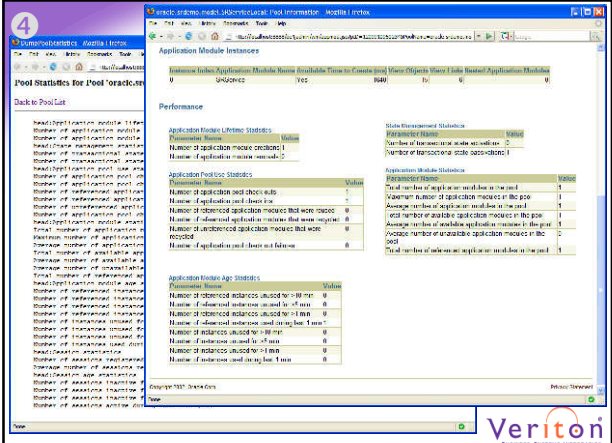


4 ADF BC Monitoring

- EM Grid Control 10g R4
- old BC4J Admin Tool
JDEV_HOME/BC4J/redist/bc4j.ear
- Steve Meunch's
DumpPoolStatisticsServlet




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General


- State of flux
 - JDev/ADF 10.1.3 ⇔ 11g
 - HTML pages ⇔ Rich Client / AJAX
 - OC4J ⇔ WLS
- ...but for a green field project:
 - Use JDev 11g, and,
 - Oracle WebLogic Server 10.3
- Expect the OFM 11g platform to 'solidify'



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Summary

- ADF is standard J(2)EE app
- 'Engineered approach' with headroom
- Use data sources for pooling; size alongside application modules
- Separate application/internal db connections
- Balance AM instances and db pooled connections
- Deploy via EAR/WAR files
- Use deployment profiles, e.g. for security providers



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Thank You for Listening!

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☺ UKOUG App. Server & Middleware SIG ☺
Wednesday 4th March 2009 – Slough
(Combined day with Apps DBA for OEBS SIG)
Corporate UKOUG members get one free place



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