Oracle Fusion Middleware: "Tales from the Trenches"

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DULCIAN

Enterprise Service Bus

ADF Faces Controll

Oracle Business Rules

Center

BEA

ADF Faces

ADF BC

Portal

JDeveloper

BI Publi

AARRGH!

EDA Suite

Content Manager

Identity Management

EJB/EJB Support

BPM

Web Services Manager

Hyperion Essbase

OAS

BPEL

"It has been said that democracy is the worst form of government except all the others that have been tried." Winston Churchill

Java EE	Fusion Middleware
◆ Gigantic	◆ Huge
◆ Impossible	◆ Complex
◆ Total chaos	◆ Too many alternatives
◆ Viral mutation	◆ Rational evolution

Critical Success Factors

◆ 1. Select a small subset of products.

◆ 2. Get help.

◆ 3. Start small.

◆ Last year:
  ➢ ADF BC
  ➢ ADF Faces
  ➢ BPEL
  ➢ Oracle Application Server (OAS)
  ➢ Less popular: JHeadstart, Oracle Business Rules, WebCenter

◆ This year:
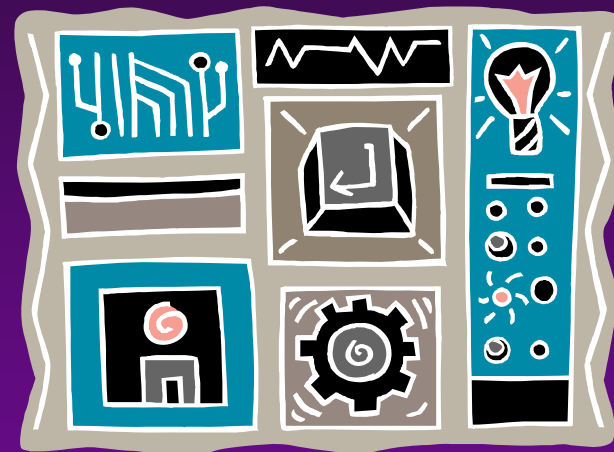 ➢ BPEL – less popular
  ➢ OAS- Soon to be replaced with BEA WebLogic

Connecting Java to the Database

◆ Leading cause of project failure

◆ Alternatives

➢ Hibernate

➢ TopLink

➢ EJB, EJB3 (write your own)

➢ JDBC code (no framework)

➢ ADF BC

ADF BC

- ◆ BEST
  - ➢ Way to connect to the database
- ◆ MATURE
  - ➢ Version 1 released in 2001
  - ➢ 4 major rewrites
- ◆ STABLE
  - ➢ The major evolution is over.
- ◆ RICH
  - ➢ Lots of functionality
- ◆ EASY
  - ➢ Compared to alternatives

ADF Faces

◆ Rich UI components

    ➢ AJAX features

◆ Based on industry standard Faces

◆ Evolving

    ➢ Lots of new things in 11*g*

    ➢ Totally new Controller in 11*g*
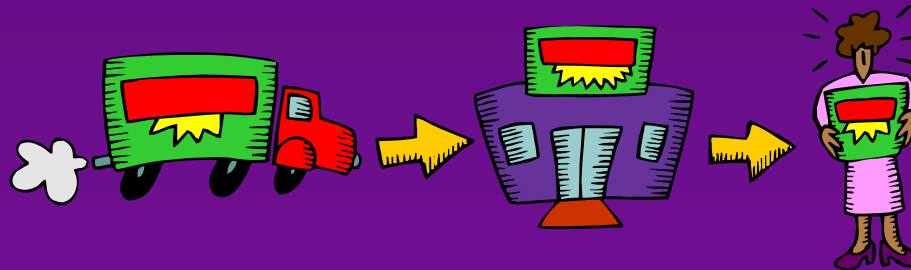
    ➢ Better rich UI page development

Application Server

- Oldest and most stable portion of the Oracle architecture.

- Widely used

- BEA WebLogic will soon replace
  - No one seems to be in a hurry to jump on this bandwagon.
  - Most organizations are still staying with their OAS installations.

BPEL

◆ Process flow engine

  ➢ Middle tier

  ➢ Java-based

◆ Industry standard

◆ Oracle BPEL is excellent.

◆ Not many organizations using it.

◆ Oracle Business Rules

  ➢ Last year, one person I talked to tried and failed.

  ➢ This year, one person was successful building a very unique application.

◆ JHeadstart

  ➢ Designer-like code generation

  ➢ Easier to learn

  ➢ Mostly used by Oracle Consulting

    ▪ Some external users

    ▪ Few new users but existing users are happy.

◆ Universal Content Manager (UCM) – few users

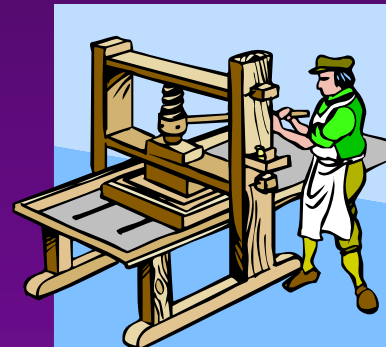◆ Identity Management Suite – lots of interest, very new

WebCenter

◆ Bundle of collected utilities

   ➢ Instant messaging

   ➢ Wiki

   ➢ Portal (any JSF is a portlet)

◆ Early releases were weak

◆ Users now happy

◆ Very expensive ($50,000/CPU)
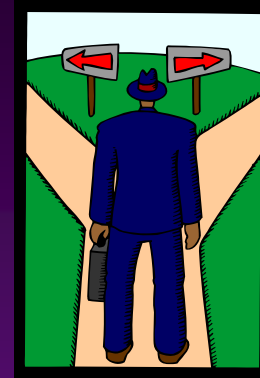
BI Publisher

◆ Reporting tool

◆ Still not Oracle Reports

◆ Expensive ($30,000)

SOA

◆ To SOA or not to SOA?

◆ Overrated bandwagon

◆ High cost, high risk

◆ Frequently not necessary

◆ Will consume more resources than you think

  ➢ In one system: 2% of requirements, 15% of maintenance

◆ Can be difficult to control and maintain web services.

Hardware Requirements

◆ Hardware requirements for Java EE (and ADF specifically) can be prohibitively expensive.

➢ Scalable application to many OO architects often means one in which performance problems can be solved by adding additional hardware.

➢ Even systems with 1000 users or less may require multiple servers to support this environment.

➢ Recent trend is to use a middle tier deployed on Virtual Machines (VM).

▪ Some cost savings and easier maintenance

What can you build?

◆ 1) Basic applications
- ➢ ADF BC
- ➢ ADF Faces
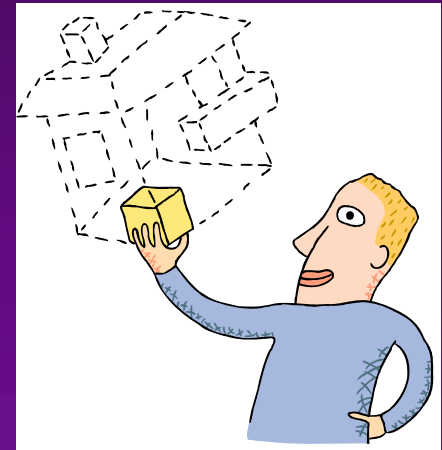- ➢ OAS

◆ 2) SOA management
- ➢ BPEL
- ➢ OAS

◆ 3) Process flow applications
- ➢ ADF BC
- ➢ ADF Faces
- ➢ OAS
- ➢ BPEL

Development Thoughts

◆ Steep learning curve

◆ Mentoring is essential.

◆ Slowly getting easier

"It ain't Forms"
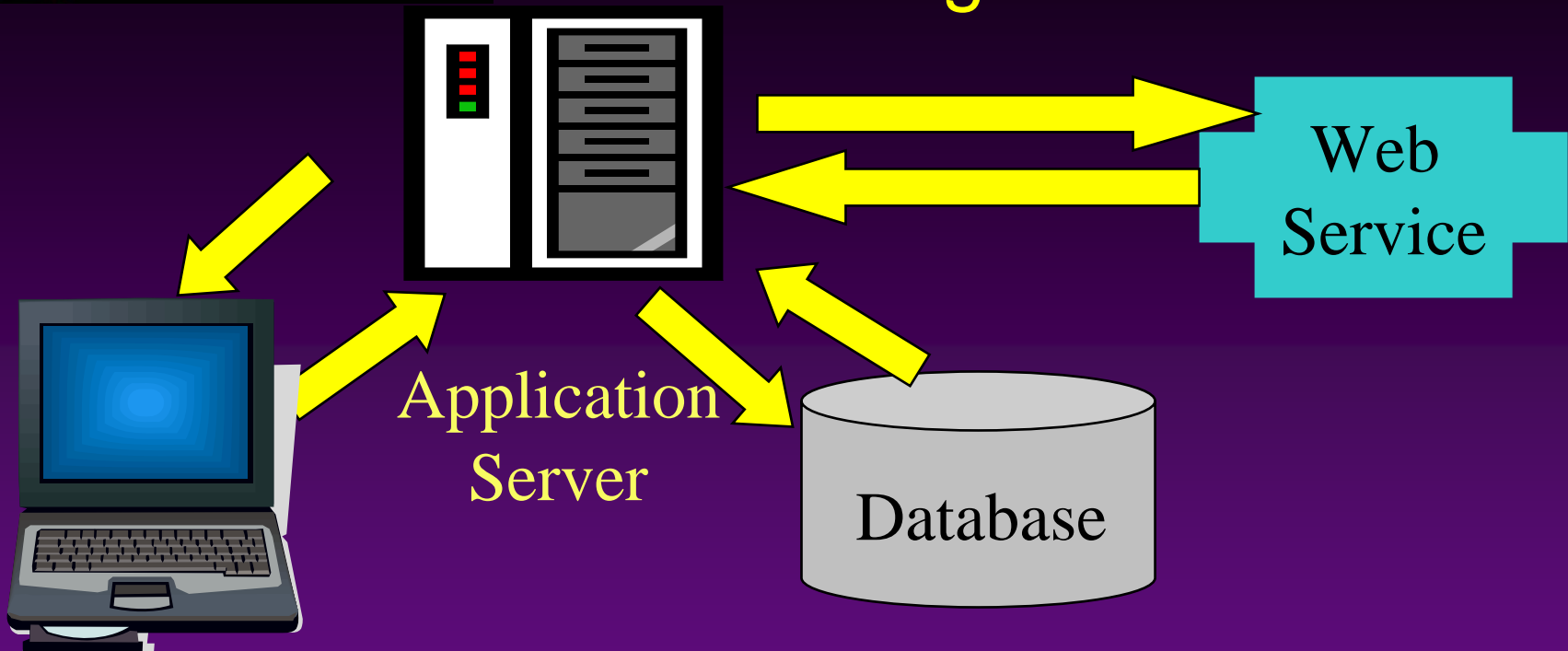
- ◆ More complex

- ◆ Slower development

- ◆ Harder to learn

- ◆ Less functional

- ◆ Web-based

- ◆ Better looking applications

Making the Web Work

Web Service

Application Server

Database

- ◆ 1. Minimize information sent to client
    - ➢ Small Pages
    - ➢ Not too much logic
- ◆ 2. Minimize round trips to the database
    - ➢ Thick database
- ◆ 3. Beware of Web Services
    - ➢ Internet bottlenecks are unpredictable.

Stateful

◆ 1 database, 1 application server session for entire logical session

◆ BEWARE large number of users
  ➢ May need 200 servers

◆ Most applications are stateful.

Stateless

◆ Every UI operation reconnects independently

(no persistent package variables or GTT)

◆ Essential for large number of users
  ➢ Only 2 servers for most systems

Is Fusion Middleware Catching On?

◆ Not really

◆ Totally fragmented environment

◆ Applications will drive Fusion Middleware

◆ APEX

  ➢ Most popular Oracle web development environment

  ➢ Won't pass Defense Department security

  ➢ Good if you stay "within the box"

Conclusions

◆ Java EE is very complex.

◆ Fusion Middleware makes complexity manageable.

◆ Tier 1 shops are productive and happy
  ➢ No one thinks open source is better.

◆ Fusion Middleware continues to improve.

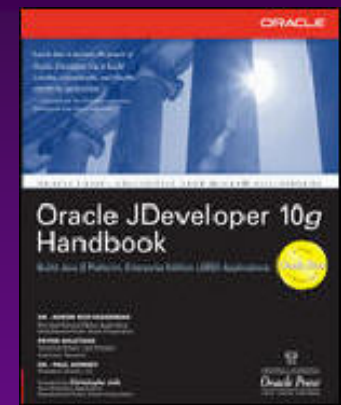◆ Oracle Applications will all be Fusion Middleware
  ➢ We may have no choice.

◆ Full business rules-based development environment

◆ For Demo

➢ Write "BRIM" on business card

Contact Information

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