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FORMS TO FUTURE – HISTORY, EVOLUTION, ARCHITECTURE AND FUTURE



AMIS – 15th of May 2012 – Nieuwegein, The Netherlands

- **History**
- **What says Oracle?**
 - Statement of Direction and explanation
- **Why?**
- **What?**
- **How?**
- **When?**
- **Key elements of the Future**
 - Vision
 - Trends and evolution
 - Continuous preparation
 - People, people, people
- **Take aways**



20 YEAR HISTORY OF FORMS

- 1981/83



- 1987



- 1990



- 1993

Oracle Forms 4.0

- 1994

Oracle Forms 4.5 & 5.0

- 1996

Oracle iDS Forms 6i & 6i Web Forms

- 2002/2005

Oracle 9i Forms & 10g Forms

- 2009

ORACLE® **11g**
FUSION MIDDLEWARE
FORMS

- 2011

Forms 11gR2



MODERN FORMS

- **Forms 11gR2 was released recently (October 2011)**

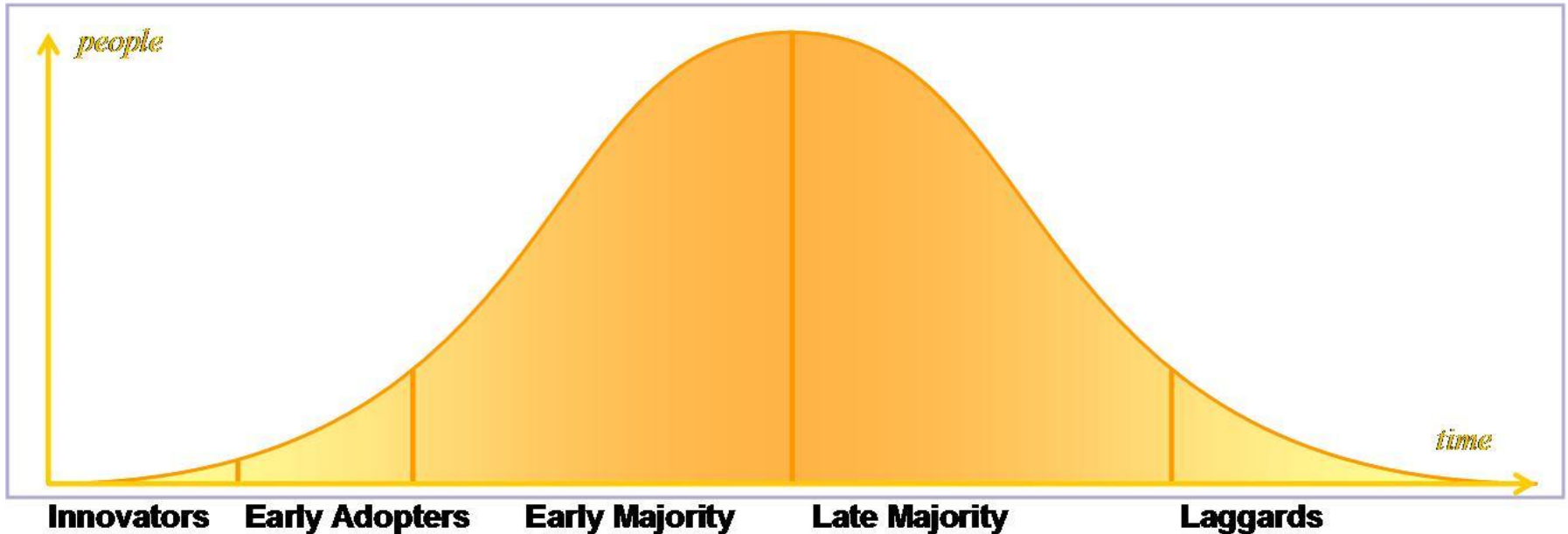


An Oracle White Paper
October 2011

Oracle Forms 11g Release 2 (11.1.2) New Features

- **Note: 12c has been announced. The story may continue beyond that.**

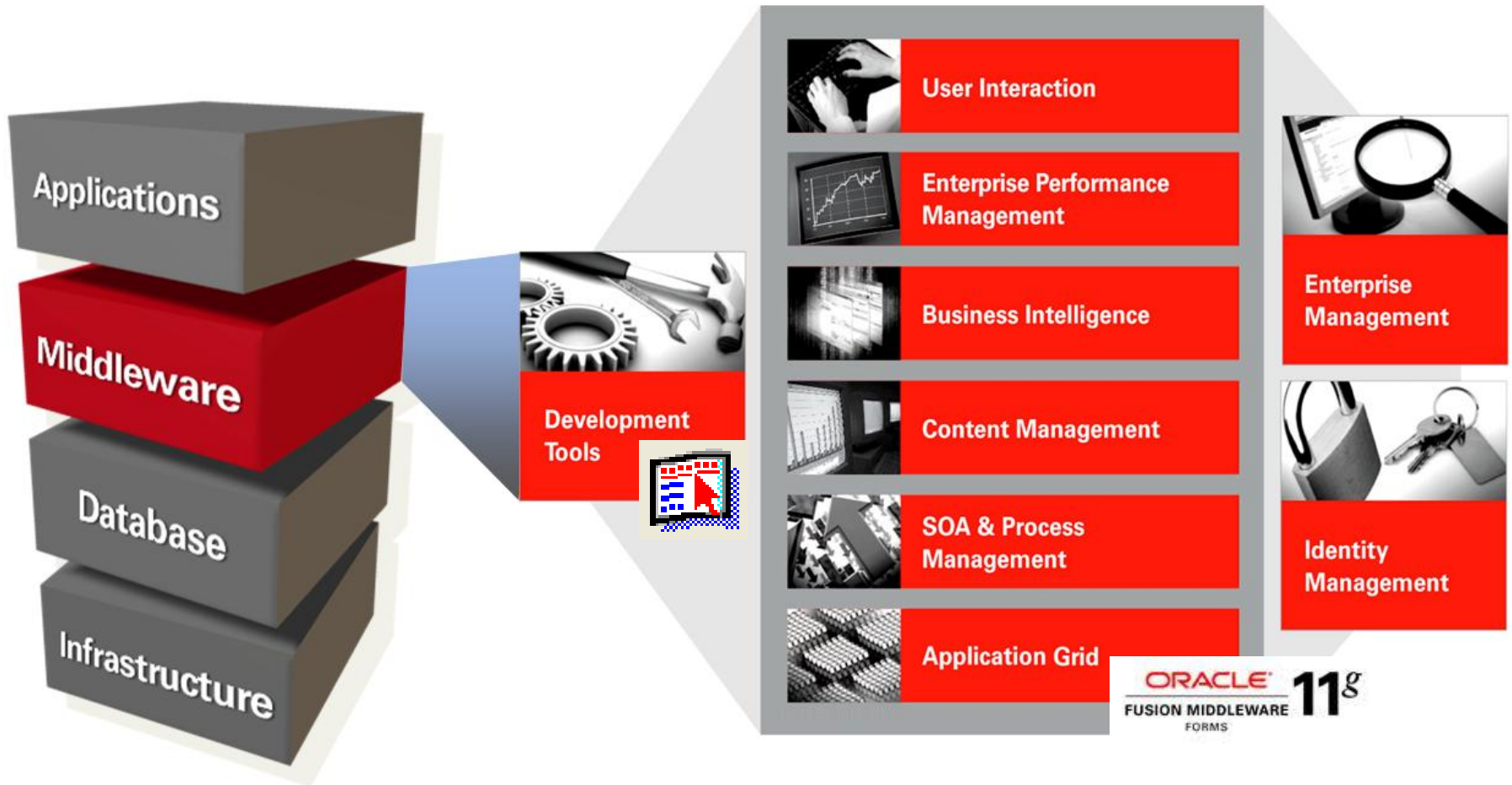
WHAT IS HISTORY FOR ONE, MAY STILL BE FUTURE FOR ANOTHER...



- **GUI (Graphical User Interface)**
- **Web**
- **Extranet, Internet, Self Service**
- **SOA, Integration, B2B**
- **Mobile**
- **BPM and Workflow Management**



FORMS 11G IS PART OF FUSION MIDDLEWARE – *PLATFORM FOR INNOVATION*





Review of Oracle Forms Strategy





1998

300% JAVA



WHY?



THE WRONG REASONS

- **Forms is not Web 2.0**
- **Forms is no longer/will no longer be supported**
- **Forms is old**
- **Development productivity with Forms is not high enough**
- **Our infrastructure cannot run Forms**
- **Forms is not Open Source**
- **Forms does not fit into our enterprise architecture**
- **My end users complain about their productivity**
- **We cannot provide the functionality required of us using Forms**

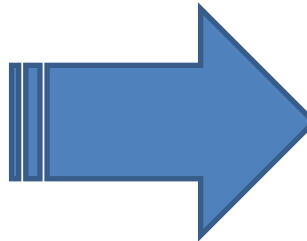


2010

END USERS ON STRIKE



THE END USER – BACK THEN



```
ACCOUNTS      DETAILS OF ACCOUNT NUMBER 10007
SURNAME      : RAMBER      (10 CHRS)  TITLE      :      (4 CHRS OPTIONAL)
FIRST NAME   : TEN        (12 CHRS)  MIDDLE INIT: A      (1 CHR  OPTIONAL)
TELEPHONE    : 4567890123 (10 DIGS)
ADDRESS LINE1: 1000 KALLPARK WAY (24 CHRS)
LINE2: ARLINGTON, TX (24 CHRS)
LINE3: 76011          (24 CHRS OPTIONAL)

CARDS ISSUED : 1          (1 TO 9)    CARD CODE : 1      (1 CHR)
DATE ISSUED  : 01 09 07 (MM DD YY)    REASON CODE: 0      (N,0,1,2)
APPROVED BY  : BEN        (3 CHRS)

OPTS 4 DENIES WHO MAY CHARGE (EACH 12 CHRS OPTIONAL)
01: BEN TEN                                02:
03:                                         04:
SPECIAL CODE1: CODE2: CODE3: (EACH 1 CHR OPTIONAL)
NO HISTORY AVAILABLE AT THIS TIME    CHARGE LIMIT 1000.00    STATUS N

NOTE:- DETAILS IN BRACKETS SHOW MAXIMUM NO. CHARACTERS ALLOWED AND IF OPTIONAL
PRESS "CLEAR" OR "ENTER" TO RETURN TO THE MENU WHEN FINISHED
NA* *                                     09/017
```



THE END USER - NOW





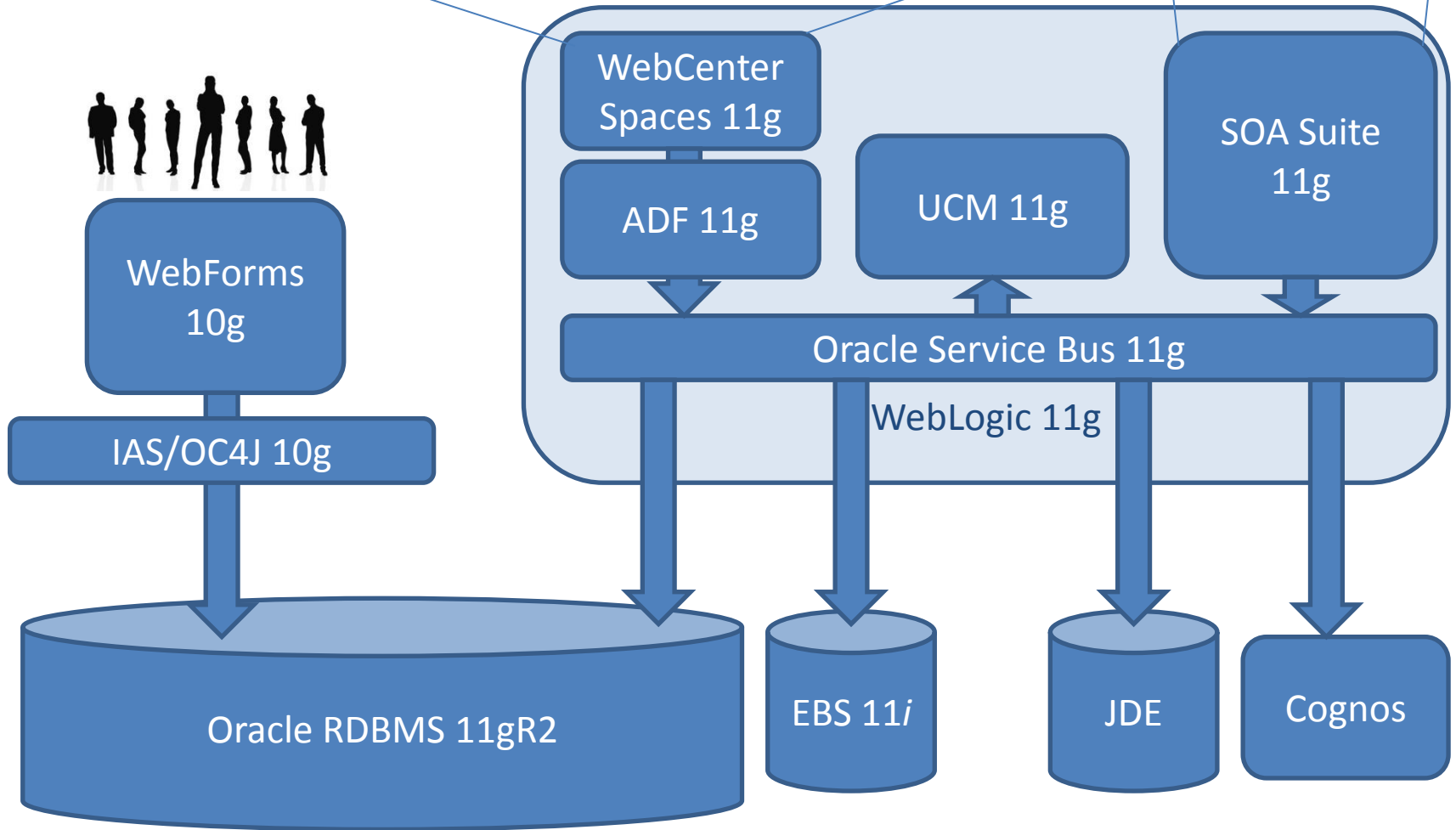
RIGHT REASONS

- **We (soon) can no longer find (enough) resource willing and able to work on Forms technology**
- **Forms applications do not have the visual appeal we need to be competitive as an ISV**
- **We want to start servicing new (external) user groups who we cannot formally train on using the application**
- **We want to start supporting new channels in addition to intranet/extranet (internet, web service, mobile)**



2009

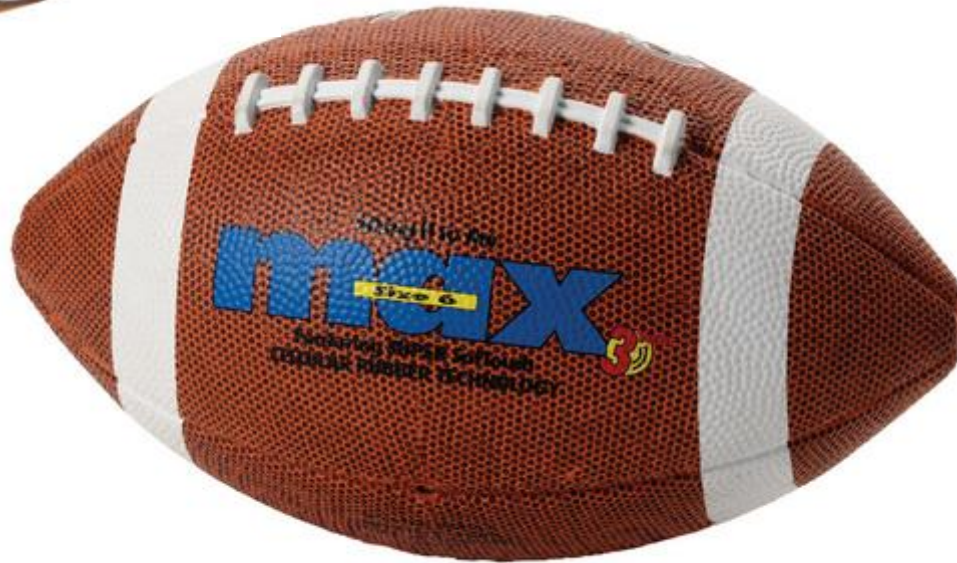
NEW USERS GROUPS AND NEW CHANNELS



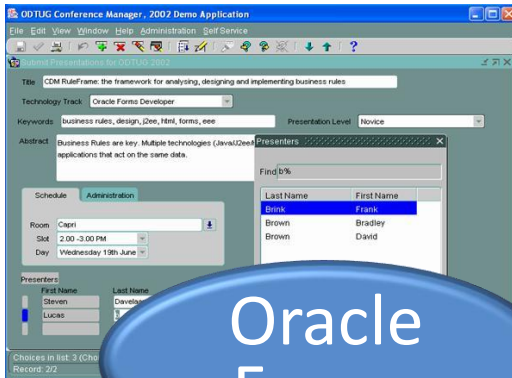


ALWAYS GOOD REASONS ...

- For *investigating* new options for application development
- For updating people skills
- For constantly evolving the vision for business, architecture and application
- For applying modern software engineering methods and tools
- For constantly modernizing your applications (in baby steps)
 - Note: there is hardly ever a *business* case for a migration for *technical* (or FUD) reasons only
- For applying the right tool for the right job







Oracle
Forms

ADF

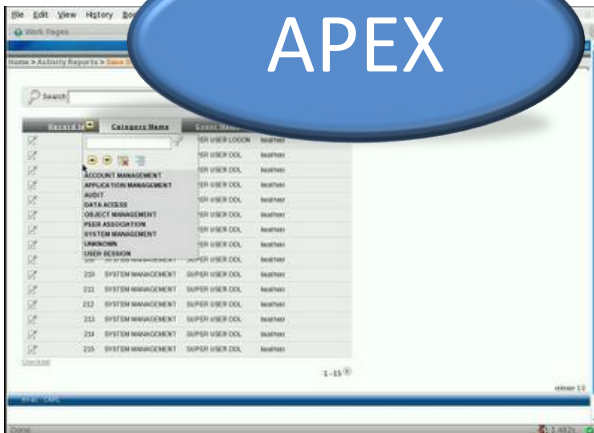
job	mgr	hiredate	sal	comm	deptno	
7902		1/17/1981	800		20	
7690		3/20/1981	1600	300	30	
7698		3/22/1981	1250	500	30	
7639		5/2/1981	2975		20	
7698		10/28/1981	1250	1400	30	
7839		6/1/1981	2850		30	
7839		7/79/1981	2450		10	
7566		1/9/1983	3000		20	
12/17/1981			5000		10	
7698		10/8/1981	1500	0	30	
7788		2/12/1983	1100		20	
7698		1/3/1982	950		30	
7902	FORD	ANALYST	7566	1/3/1982	3000	20
7934	MILLER	CLERK	7782	2/23/1982	1300	10

.Net

EVENT FINANCIAL PLANNER (Estimated)

Revenue	Revenue	Estimated Amt	Go To Form
Facility Expenses	Expense	Estimated Amt	
	Venue Rental	\$0.00	
	Security	\$0.00	
	Janitorial	\$0.00	
	Sound System	\$0.00	
	Tables, chairs rental	\$0.00	DELETE
	Trolley Transportation	\$0.00	DELETE
	Licenses	\$0.00	DELETE
	Decorations/flowers	\$0.00	DELETE
		\$0.00	
Entertainment Expenses	Expense	Estimated Amt	
	Food	\$0.00	
	Beverage	\$0.00	
	Service / Coverage	\$0.00	
	Sand/Music	\$0.00	
	Guest Speaker	\$0.00	
		\$0.00	

APEX



Open
Source



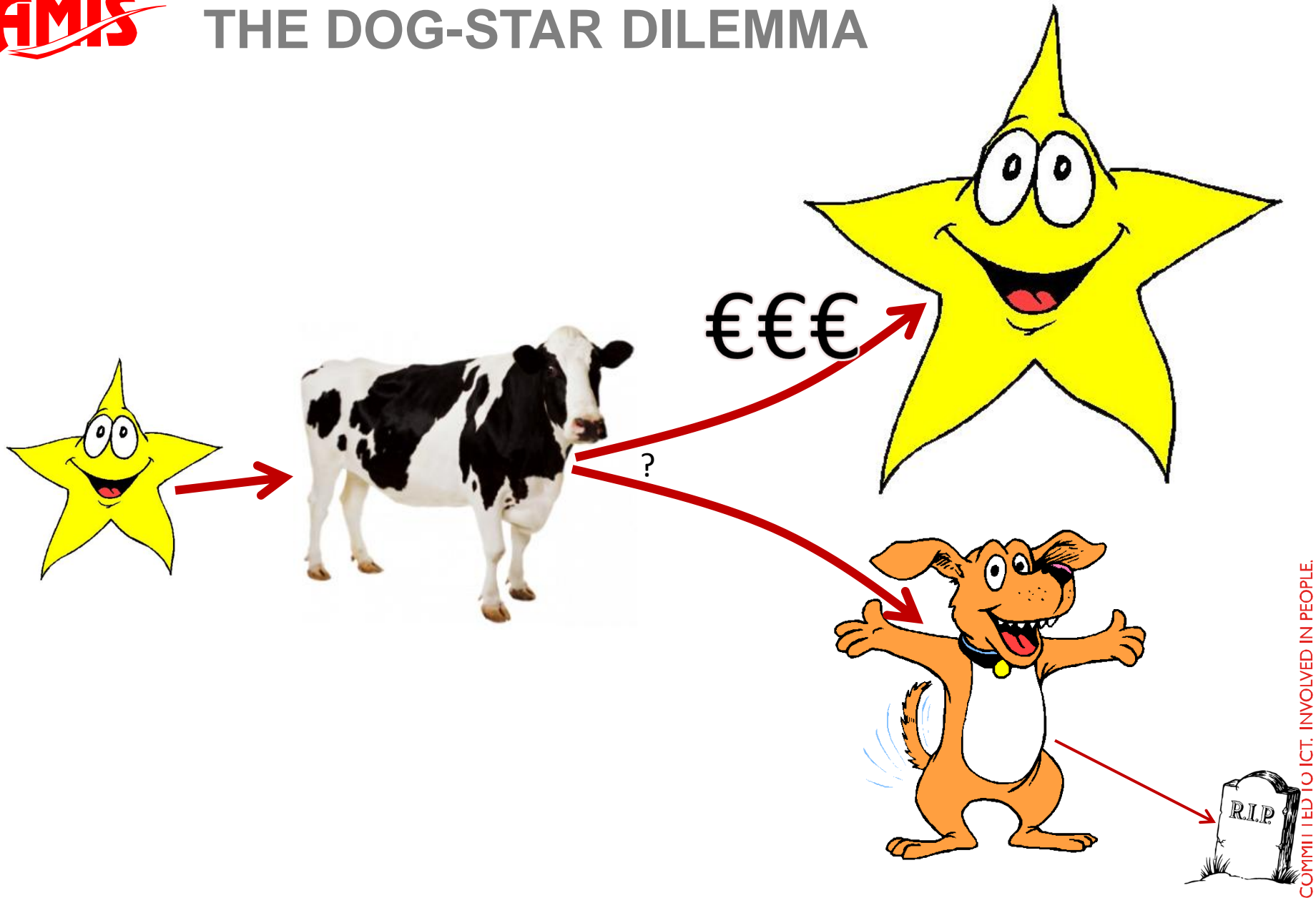


2011

VISION FOR ISV



THE DOG-STAR DILEMMA



- **Any application represents a substantial investment**
 - The actual lines of code themselves (and the functionality they provide)
 - The acceptance and skills of end users & other parties
 - The expertise of the development team
 - As well as architects, analysts, testers, administrators, ...
- **Any replacement will require a similar investment**
 - Note that the original investment has been made over a period of 5 years, 10 years or even longer!
- **The applications and their underlying technology stack warrant a solid depreciation scheme**
 - For building up the budget to keep evolving





THERE IS NO BUSINESS CASE...

- **For a 1:1 rebuild (or even automated migration) of your existing Forms application**
- **If it looks like Forms, works like Forms, feels like Forms...**
- **... it might as well be Forms**
- **Business cases revolve around:**
 - New users/customers or channels
 - New functionality
 - Retention of customers with improved X, Y and Z
 - Lower costs for existing functionality





WHAT YOU SHOULD ALWAYS BE DOING

- **Work on your vision**
 - Strategy for the application and its architecture – derived from the strategy for the company
- **Stay on top of features of your current tool stack**
 - To at least pick the low hanging fruit



FORMS FUTURE SCENARIOS

- ***Evolve/improve/"pimp" existing Forms, continue to run as Forms but with a much more modern look and feel***
- ***Integrate in SOA environment - hook up to push-mechanisms, queuing interaction and workflows***
- ***Embed in Web 2.0 (UI integration with ADF, .NET or other 'modern' web technologies)***
- ***Wrap as web service (publish business logic from Forms & reuse with new User Interfaces or WebServices on top)***
- ***Render to new platforms (render Forms as they are to new platforms like HTML browsers and mobile devices)***
- ***Migrate to new technology stack and architecture (semi)-automagically migrate/convert Forms to new technology***
- ***Migrate to new technology stack and architecture: rebuild functionality in new technology stack - leveraging functionality and experience from current Forms***

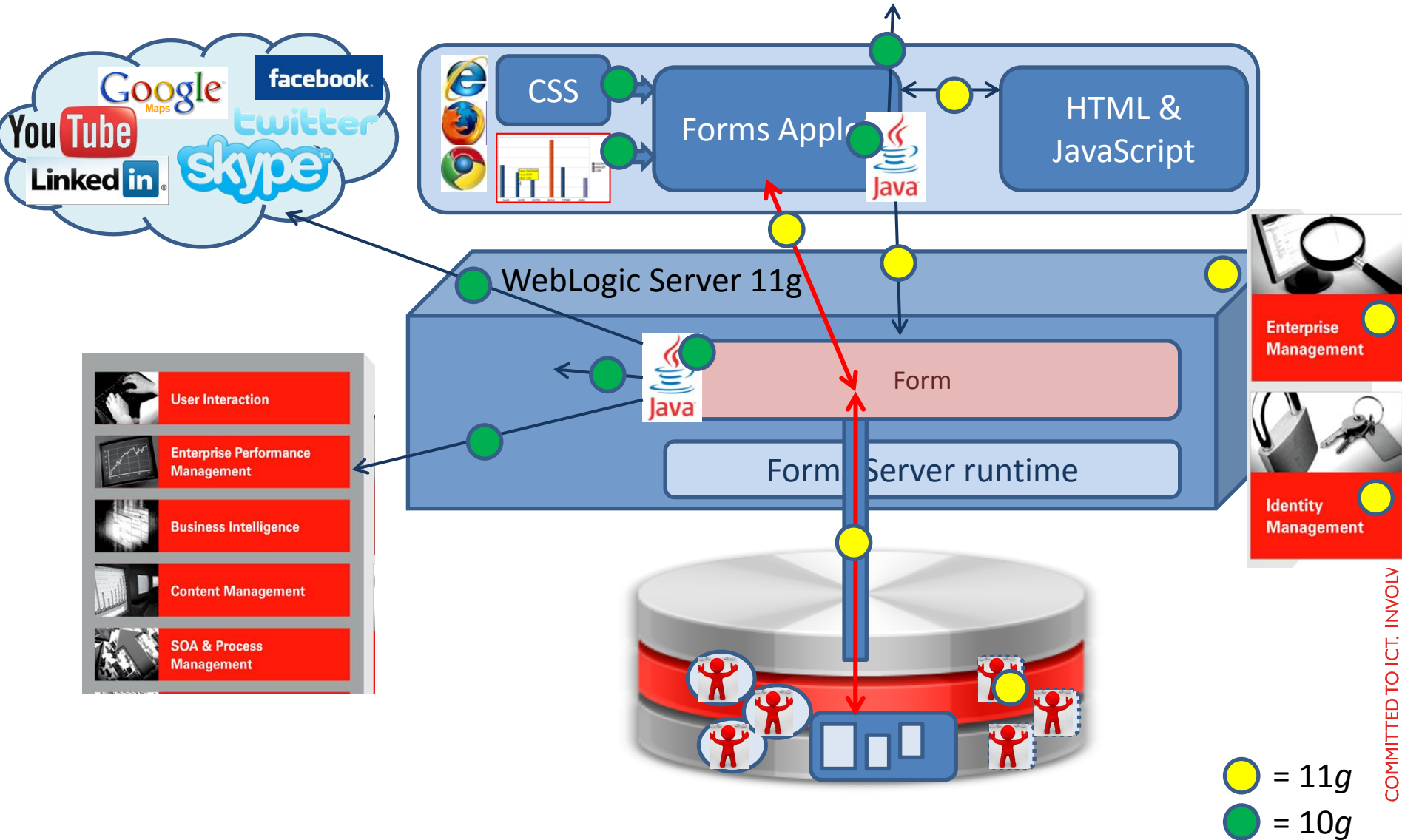


MODERN FORMS – KEY PROOF POINTS

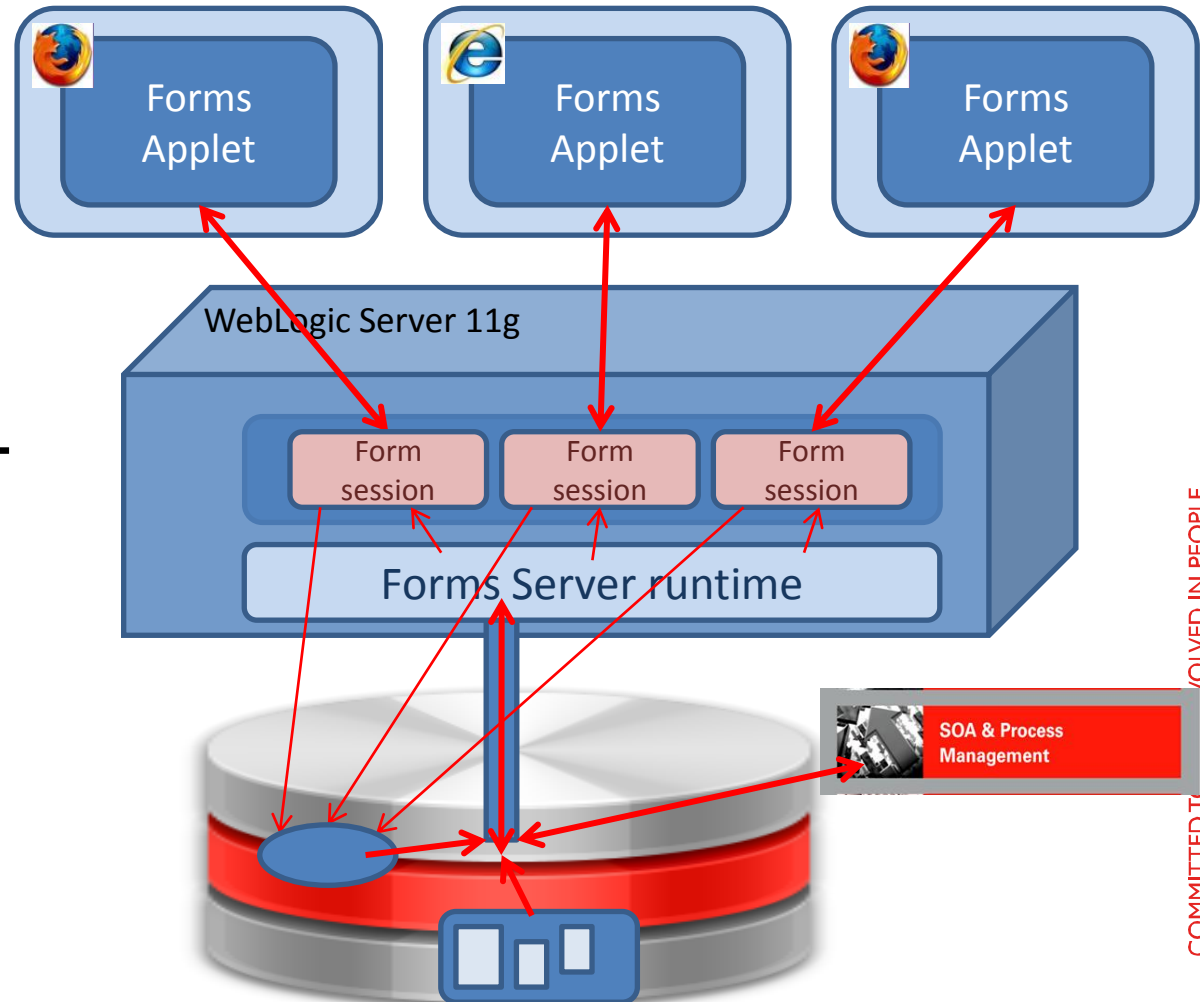
- **Runs on WebLogic – same platform as strategic middleware products including ADF/WebCenter, SOA Suite, BPM Suite, UCM, OBIEE and IdM**
- **Managed from Enterprise Manager 11g**
- **Integration with Oracle 11g Access Manager**
- **Support for Database Proxy Users**
- **(Client Side) Pluggable Java Components to add custom functionality and interaction elements to UI**
- **Integration with AQ – to allow for Server-to-Client push**
- **Java Importer – extend Form with middle tier Java**
- **JavaScript bridge**
 - from JavaScript to Form: pass information and events from web page to Form
 - from Form to JavaScript: pass data and event from Form to web page



FORMS 11G ARCHITECTURE



- Form can subscribe on Advanced Queue
- **WHEN-EVENT-RAISED** trigger deals with event
 - In Forms Server
- Event can be pushed from Server to client
- Form can call PL/SQL procedure to publish events on AQ
 - This enables Form2Form push



TWO-WAY JAVASCRIPT API IN FORMS APPLET TO INTERACT WITH WEB PAGE

- **JavaScript in web page can send information into Form**
 - HTML page uses raiseEvent JavaScript method on Applet Object to pass event with payload to the Form
 - Form receives and processes the event with WHEN-CUSTOM-JAVASCRIPT-EVENT triggers
- **Form can execute JavaScript snippet in the containing HTML page**
- **This allows for mutual synchronization, opening the door for embedding, merging of technologies**
 - For example Forms and .NET, APEX, any Java Web framework, ADF

Empno	Name	Job	Hiredate	Salary
7369	SMITH	CLERK	17-DEC-1980	800
7788	SCOTT	ANALYST	09-DEC-1982	3000



FORM EMBEDDED IN WEB APPLICATION (ADF, APEX, OSS JAVA)

OraFormsFaces

Home Administration SelfService

Administrate Conference Tracks | Administrate Companies | Administrate Conference Rooms | Administrate Evaluation Questions | **Administrate People**

Administrate People

Filter By: First Name [v] [Advanced Search]

Action View Format + Freeze Detach Wrap

	First Name	Last Name	Email
X	Ken	Atkinsqqq	
X	Frank	Brink	frank.brink@oracle.com
X	Bradley	Brown	
X	David	Brown	david.brown@oracle.com
X	Steven	Davelaar	steven.davelaar@oracle.com
X	Paul	Dorsey	
X	William	Dwight	william.dwight@oracle.com
X	Kent	Graziano	
X	Erwin	Groenendal	erwin@cumquat.nl
X	Marlijn	Hinten	marlijn@cumquat.nl

ODTUG History

Country: Netherlands [v] Birthdate: 21-Sep-1963 [v] Biography: He created headstart, he created JHeadstart and he will create much more. The master of generation is now the Knight of Reuse.

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Home Administration SelfService

Administrate Conference Tracks | Administrate Companies | Administrate Conference Rooms | Administrate Evaluation Questions | **Administrate People**

Administrate People (Davelaar) >

Conference Attendance Management

First Name: Steven Last Name: Davelaar Email: steven.davelaar@oracle.com

Personal Details Company

Country: Netherlands [v] Odtug Member: ☐

Biography: He created Headstart, he created JHeadstart and he will create much more. The master of generation is now the Knight of Reuse.

Birthdate: 21-SEP-1963

Presenter Of

Day	Slot	Title
Tuesday 18th June	3:15 - 4:15 PM	Oracle JHeadstart - Building E-Business Applications
Wednesday 19th June	2:00 - 3:00 PM	CDM RuleFrame: the framework for analysing, design
Tuesday 18th June	8:30 - 9:30 AM	Oracle Forms 2.3 - The lasting legacy
Wednesday 19th June	4:45 - 6:15 PM	Implementing Business Rules in Business Component

☒ Primary pres... ☒ Demonstrator? Level: All [v]

Abstract

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WEB 2.0 LOOK & FEEL – DRIVEN BY CSS

- Community Project *Forms Look and Feel*
- PJC based mechanism to style Forms using CSS

Action Edit Query Block Record Field Help Window

Forms Look & Feel demo

Employees Goodies

ORACLE

Oracle BLAF Look and Feel

Empno	Ename	Job	Mgr	Hiredate	Sal	Comm
7369	SMITH	CLERK	7902	17-DEC-1980	915	
7499	ALLEN	SALESMAN	7698	20-FEB-1981	1600	
7521	WARD	SALESMAN	7698	22-FEB-1981	1250	
7566	JONES	MANAGER	7839	02-APR-1981	2975	
7654	MARTIN	SALESMAN	7698	28-SEP-1981	1250	
7698	BLAKE	MANAGER	7839	01-MAY-1981	2850	
7782	CLARK	MANAGER	7839	09-JUN-1981	2450	
7788	SCOTT	ANALYST	7566	09-DEC-1982	3000	
7839	KING	PRESIDENT		17-DEC-1980	6000	
7844	TURNER	SALESMAN	7698	08-SEP-1981	1500	

Switch theme Ebay

Record: 1/14

Action Edit Query Block Record Field Help Window

Forms Look & Feel demo

Employees Goodies

ORACLE

Ebay style Look and Feel

Empno	Ename	Job	Mgr	Hiredate	Sal	Comm	Dept
7369	SMITH	CLERK	7902	17-DEC-1980	915	10	20
7499	ALLEN	SALESMAN	7698	20-FEB-1981	1600	300	30
7521	WARD	SALESMAN	7698	22-FEB-1981	1250	500	30
7566	JONES	MANAGER	7839	02-APR-1981	2975		20
7654	MARTIN	SALESMAN	7698	28-SEP-1981	1250	1400	30
7698	BLAKE	MANAGER	7839	01-MAY-1981	2850		30
7782	CLARK	MANAGER	7839	09-JUN-1981	2450		10
7788	SCOTT	ANALYST	7566	09-DEC-1982	3000		20
7839	KING	PRESIDENT		17-DEC-1980	6000		10
7844	TURNER	SALESMAN	7698	08-SEP-1981	1500	0	30

Switch theme BLAF



COMMITTED TO ICT. INVO

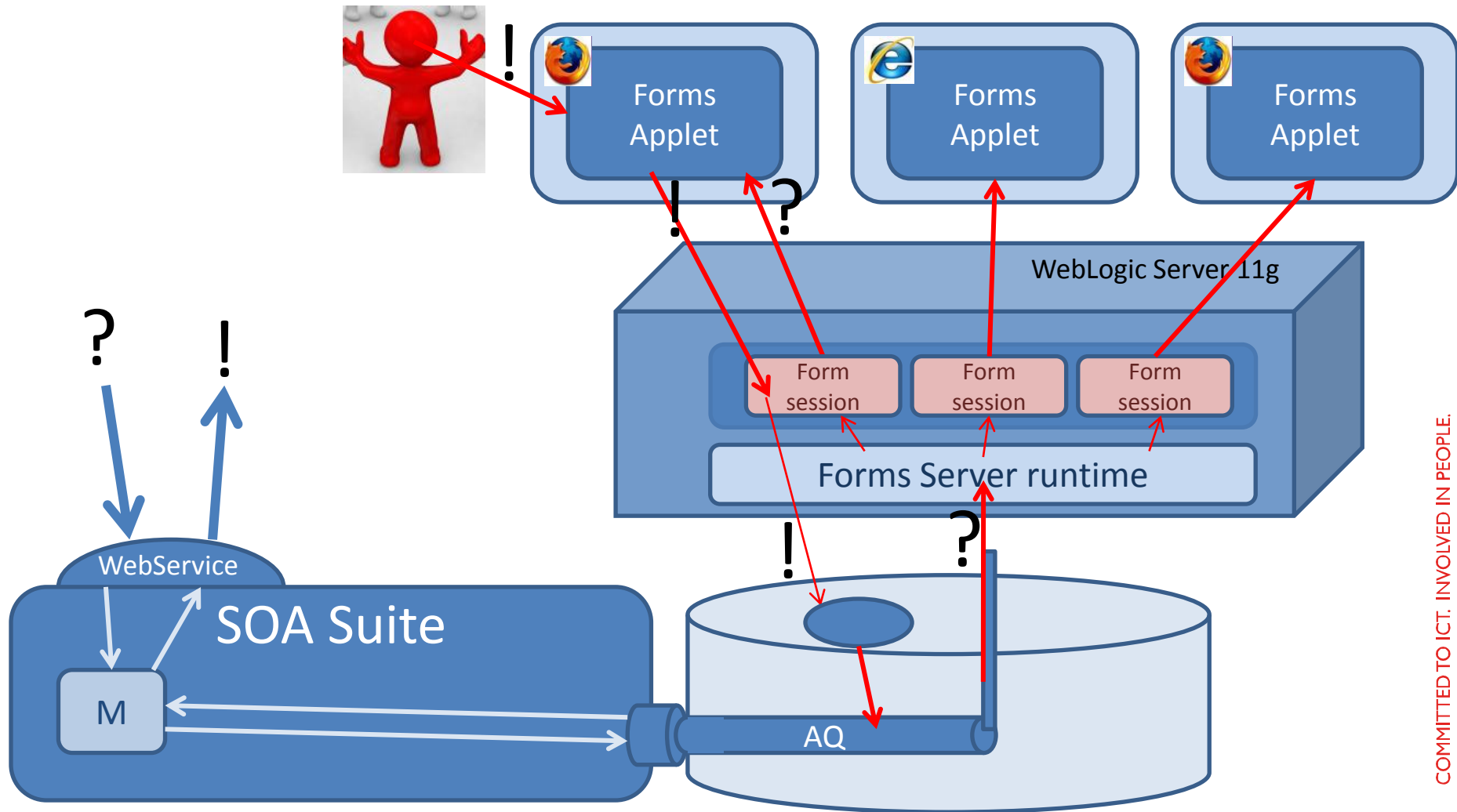
Common Theme in Forms Evolution:

INTEGRATION

**BASED ON STANDARDS –
WITH TECHNOLOGIES ON EVERY TIER**

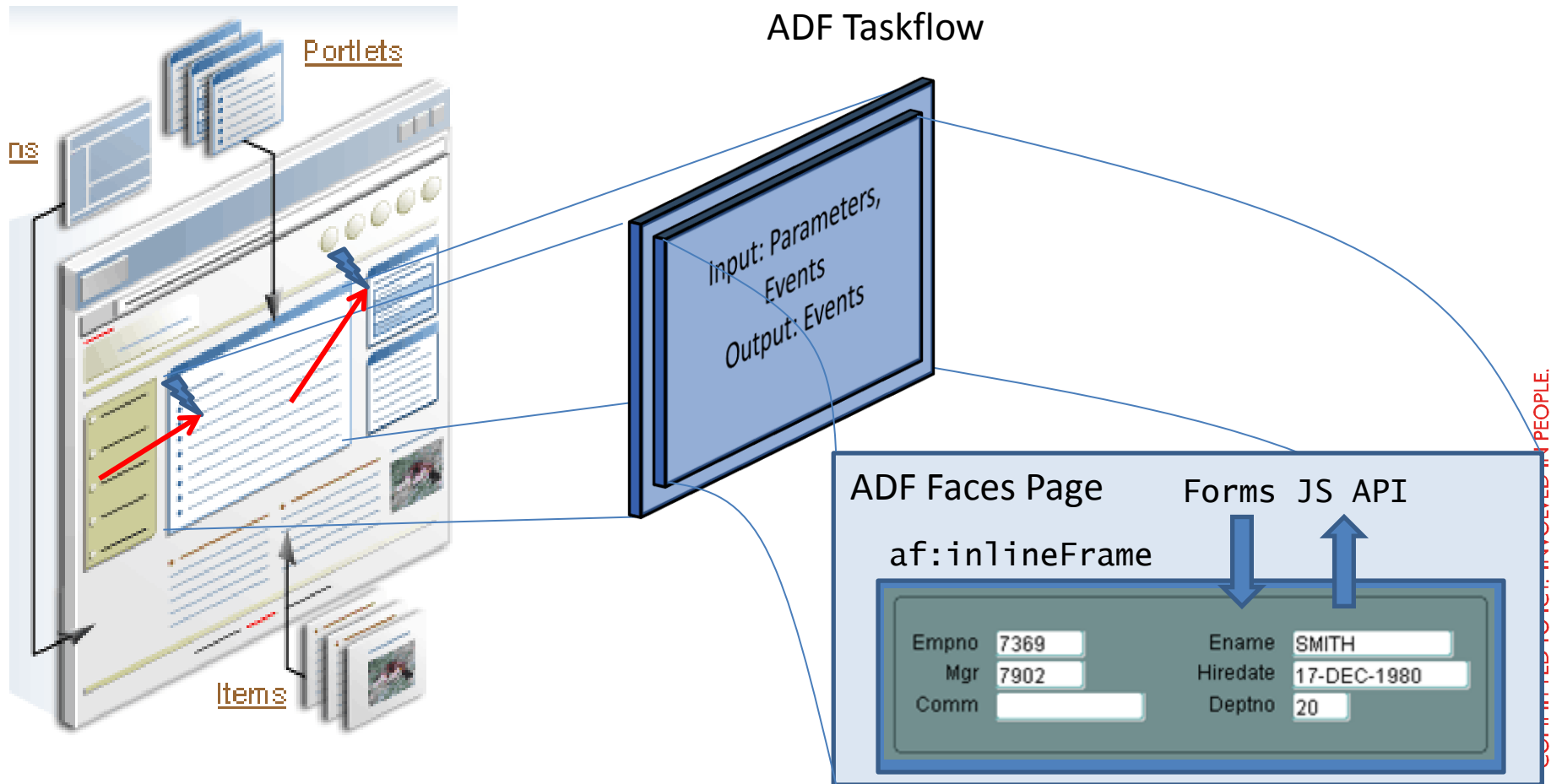
**CATERING FOR HYBRID-AND-
INTEGRATED APPLICATION
ARCHITECTURE**

MODERN FORMS SCENARIOS – FORMS IMPLEMENTING SOAP WEB SERVICE





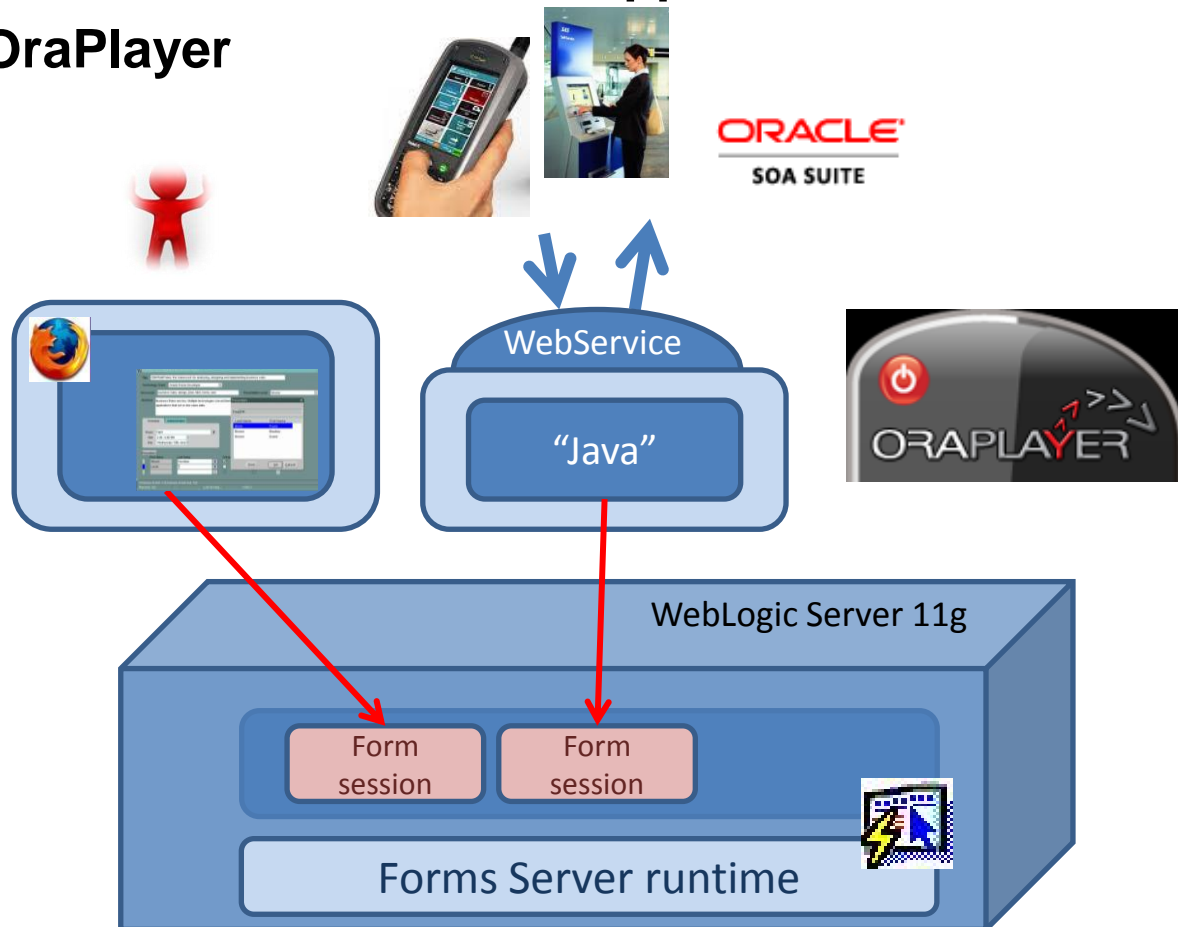
MODERN FORMS SCENARIOS – FORMS IN JEE / WSRP WEB PORTAL





WRAP FORMS AS WEB SERVICE AND CREATE NEW USER INTERFACES

- Reuse existing Forms – running on Form Server, unchanged, leveraging all existing business logic, interaction scenarios wrapped as Web Service
- OraPlayer



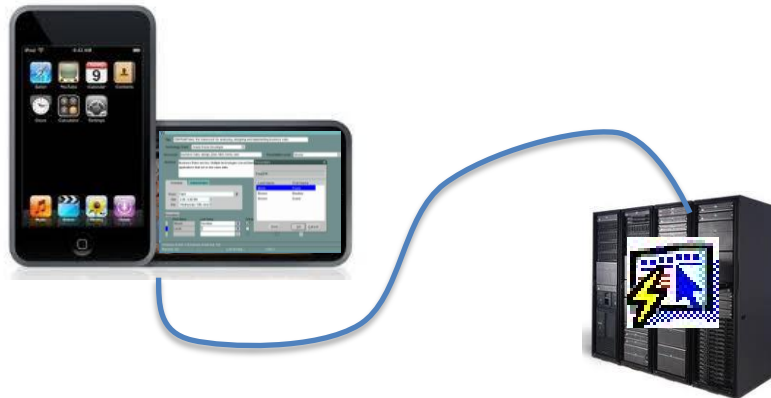


RENDER EXISTING FORMS TO DIFFERENT (NEW) PLATFORMS

- Reuse existing Forms –render as pure HTML to any HTML browser –including on Mobile devices
- Yo!Forms and Yo!Server

Yo!Forms

Yo!Server





MIGRATE OR REBUILD SELECTED PIECES FOR NEW USER GROUPS OR CHANNELS

- **Rebuild: using your technology of choice**

- .NET
- Some Java Open Source Framework
- 3rd Party 4GL like technology
- ADF (Oracle's own strategic application development framework)



- **Or: Migrate (even convert) using tools on offer**
 - Pitss, Ciphersoft, Qafe, JHeadstart, ASP Solutions





BUILD ON NEW TECHNOLOGY STACKS USING EXISTING DEVELOPER SKILLS

- **APEX**
 - Comes even with (basic) migration tool



- **Formspider**

*formspider*TM



formspiderTM

www.theformspider.com



Yalim K. Gerger

- 100% PL/SQL
- No Java, No JavaScript Needed.
- Applications work 100% AJAX DTHML/JavaScript
- All Applications work in All Browsers by Default
- Formspider is cross platform like Oracle Forms
- Formspider Development is Very Much Like Oracle Forms
- Downloaded over 2000 Oracle Customers. It is the new hot tool. :-)
- Formspider is the tool Oracle should have built for PL/SQL Developers



*formspider*TM References



- U.S. Air Force
Recruiting System. 3000 users.



- ING Insurance&Retirement Fund
Agency Portal.



- New York State
OASAS Drug and Alcohol Abuse Treatment Program Budget Management Applications. The Application manages about a billion dollars. 250 users.



- OK International
Leading global supplier of soldering tools.



- Rotometrics
World's largest Rotary Die Manufacturer. Ordering System. 1000 users.

- **Differences across**
 - User groups
 - Channels and devices
 - Functional requirements
 - ‘Service Level’ demands
- **.. *will* require various, different technological solutions.**
- **Moderns IT architectures, standards and technologies make hybrid and integrated solutions possible.**
- **This should be your objective too!**



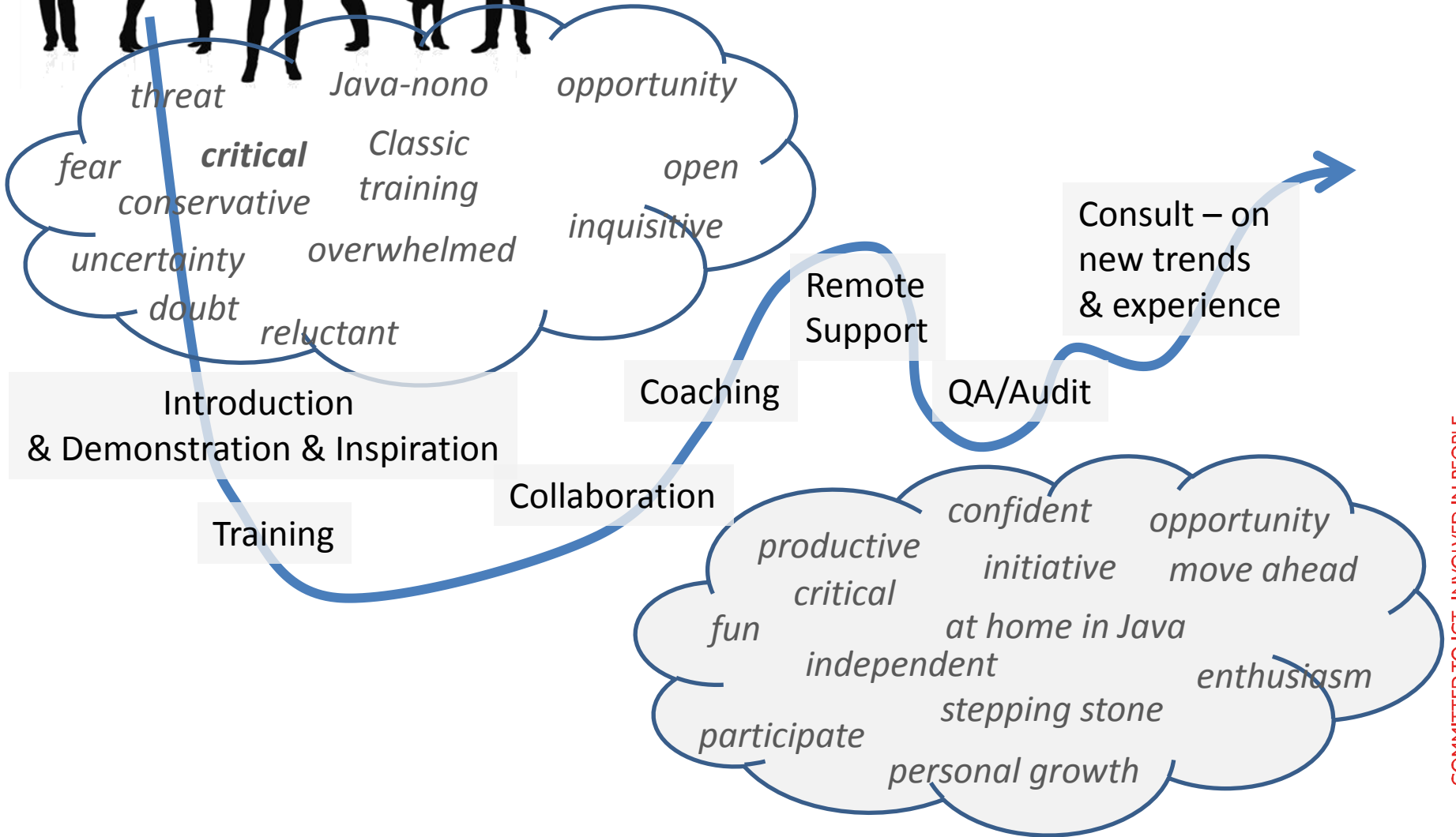


WHAT YOU SHOULD ALWAYS BE DOING

- **Work on your vision**
 - Strategy for the application and its architecture – derived from the strategy for the company
- **Stay on top of features of your current tool stack**
 - To at least pick the low hanging fruit
- **Prepare for a future with a hybrid environment**
- **Continue to evolve skills of the people involved**
 - You need to have at least some Java, XML, Web Service skills on the team
 - Continue to upgrade SQL, PLSQL and Forms skills
- **Design and implement following ‘decoupling’ as architecture principle**



PEOPLE



CHERISH & INVOLVE ALL STAKEHOLDERS

- **Make project visible**
- **Involve *everyone***
- **Frequent communication**
- **Search for added value in various dimensions**
 - Functionality, Quality, Cost, Satisfaction for both end users and the IT team





TAKE AWAYS

- **Plan based on a vision with the application (and perhaps the enterprise on the whole)**
- **Decide using valid, rational arguments**
- **Reckon with a prolonged (continuous) evolution rather than a big bang switch over**
- **Do *not even* consider fully automated migration from Forms to <something else>**
- **Hybrid environments and mutually complementary approaches are likely the way to go**
- **Decoupling will help with building the hybrid architecture and helps low-impact optimization**
 - Move data-oriented business logic out of Forms to DB
- **Moving to Forms 11g (more specifically: to WebLogic Server) is a smart move to a solid foundation**
- **Forms 11g is more modern than many people realize**
- **People are the key to success**

THE FUTURE OF FORMS IS....

A LANDSCAPE IN WHICH **FORMS** WILL PROBABLY PLAY AN IMPORTANT ROLE FOR QUITE SOME TIME TO COME – ALONG WITH NEW TECHNOLOGIES TO CATER FOR NEW USER GROUPS, NEW CHANNELS AND NEW FUNCTIONAL REQUIREMENTS



NEXT UP ...

9.15-9.45	Reception
9.45	Welcome, Introduction on program and speakers
10.00	Forms to Future - history, evolution, architecture and future - Lucas Jellema
10.45	Modernizing Forms using Pluggable Java Components and the Forms Look and Feel project - François Degrelle
11.15	Short break
11.30	To infinity and beyond: Extend the life of your Oracle Forms application by running your existing Forms from next generation technologies/platforms without migration - Mia Urman
12.00	Forms 11g, ADF and APEX: Co-existence in Enterprise Applications - Madi Serban
12.30	Lunch