



**ORACLE®**

# **APEX Enterprise Deployment**

**June 25, 2014**

**Brian Spendolini**

"THE FOLLOWING IS INTENDED TO OUTLINE OUR GENERAL PRODUCT DIRECTION. IT IS INTENDED FOR INFORMATION PURPOSES ONLY, AND MAY NOT BE INCORPORATED INTO ANY CONTRACT. IT IS NOT A COMMITMENT TO DELIVER ANY MATERIAL, CODE, OR FUNCTIONALITY, AND SHOULD NOT BE RELIED UPON IN MAKING PURCHASING DECISIONS. THE DEVELOPMENT, RELEASE, AND TIMING OF ANY FEATURES OR FUNCTIONALITY DESCRIBED FOR ORACLE'S PRODUCTS REMAINS AT THE SOLE DISCRETION OF ORACLE."

# Agenda

- Overview
- Architecture
- Security
  - Application
  - Database
  - LDAP
  - ORDS
- Development and Deployment
- UAT/Unit Testing

# Oracle Demo's Group

- Overview

# About the dev team

- Global Development Team
  - 3 in US
  - 5 in Mexico
  - 1 in Belgium
  - 1 in India
- 15-30 Minute Scrum call every morning
- 2 or more 1 hour code reviews weekly
- Shared Scrum/Milestone Calendar
- Internal Agile/Projects App

# Old Environment

- Two schemas, exact same code and tables
- Plsql server pages
- Custom authentication (cookie based) and SSO
- Resided in intranet
  - VPN for internal
  - Citrix/Remote Desktop for partners
  - Port/Firewall Issues

# Project overview

- Move help tickets, reservations, demos to the internet
- Multi Tenancy (multilevel internal and partners)
- Consolidate environments
  - Combine partner and internal schemas
  - Single security schema
  - Single Authentication Method

# Technical Architecture

- TBD



# Security and Metadata Schemas

- Shared by all applications
- Secured APIs and Views
- VPD and Context
- OIM

# Security and Metadata Schemas

- Group Based Authentication
- Data Access Functions
  - APIs
  - Apps
  - Tabs
- Hierarchical

# Secured APIs and Applications

- All external facing applications use shadow schema
- All APEX pages use secured public APIs for work
  - No in page plsql
  - Public APIs use context to check users group and security levels
  - All exceptions logged
- All components and pages have auth schemas (page, lov, lists, etc)
- VPD
- Esert

# LDAP Integration

- DBMS\_LDAP calls to check internal/partner LDAP attributes
- Custom Attribute for F5 ACL
- Specialized Attributes for Partners
- Checks done on login/authentication

# APEX Listener and Auth procedure

- Auth check for external apps
- App number/alias check against metadata schemas
- Metadata schema also used for custom/added procedures
  - wwv
  - Downloading files

# Patching and deployment

- 4-6 week agile cycles
- Jenkins for build tests
- SVN
- Internal patching process (ARU)
- Friday night releases

# Unit Testing

- SQL Developer for unit testing of plsql APIs
- More complex business logic uses a custom wrapper that works with SQL dev
- Tests are run during patch build process

# Testing and UAT

- Multiple Environments
  - 2 Development Environments
  - 1 UAT
  - 1 Patch Build Environment
  - 1 Production
  - 1 Stage (for IT/DBAs)
- UAT testing with business users
  - Multiple Phases
  - Bug fixes go into dev then patch rebuilt
  - Patching of UAT twice a week of UAT phase



# Other Oracle tech used

- Oracle Text
  - Context and cat indexes
    - Progressive relaxation
    - Soundex, fuzzy, stemming
    - Blob indexes
- ODRS
- OIM
  - User retention
  - Role Requesting

ORACLE®