The following presentation is intended for information purposes only, and may not be incorporated into any contract.
Agenda

ARCHITECTURE & STANDARDS
✓ Service Oriented Industries
✓ Service Oriented Architectures
✓ SOA Value Patterns
✓ Enterprise Architectures

TECHNOLOGY: ORACLE SOA SUITE 11g
✓ Oracle Technology Architecture
✓ Integration Architecture
✓ Process Architecture
✓ Business Event Processing Architecture
✓ Recommendations
About the Speaker: Mauricio Naranjo

Experience on Architecture

- Mr. Mauricio Naranjo is an Engineer with experience since 1994 specialized on Architecture and Design of Information Technology Solutions using Standards, Middleware, Enterprise Architecture & IT Governance.

- Enterprise Solutions Experience for more than 60 banks & financial institutions, communication companies and governments.

- Oracle SOA Architect Certified Expert (US)
- ITIL v3 Certification - IT Governance (UK)

- **Speaker at** New York Oracle Users Group (NYOUG), Oracle Developer Tools Users Group (ODTUG), Independent Oracle Users Group (IOUG).
- **Speaker at Oracle Events**: Chile, San Salvador, Costa Rica, Bogota, Lima, Quito.
- **Oracle ACE Director at Oracle Corporation (US), since 2007.**
Service Oriented Industries

Light → Energy Generators → Energy Networks → Energy Plants
Service Oriented Industries

Processors → Computers → LAN / WAN

Internet Services:
WWW, E-MAIL, FILE-TRANSFER, SEARCH, SOCIAL NETWORKS
System’s Reality

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<th>Presentation Channels</th>
<th>ERP</th>
<th>CRM</th>
<th>Legacy</th>
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Screen scrape
Batch file
Business Needs & Challenges

- Reduce operational costs
- Control and improve the efficiency of processes and services.
- Improve the quality of the information.
- Improve the quality of decisions.
- Improve the collaboration between business areas and eco-system of customers, providers and partners.
Major Flexibility Of software Systems

- Better software modularity: 77%
- Better integration with Business units & partners: 53%
- Lower costs: 59%
- Improve software development productivity: 47%
- Improve the ability of Provide new services: 40%
- IT Directors Expectations
Change of IT Philosophy

TODAY “AS IS”
Application’s Orientation

- Application’s Ecosystem
- New business requirement
- Update Application
- New Application Ecosystem

PROPOSAL “TO-BE”:
Service Orientation

- Services Portfolio
- New business requirement
- Service Reuse & Composition
- New Services
How Are the Business Process Today?

- **Inflexible**: Hard-coded in systems and applications.
- **Isolated**: By departments or areas.
- **Coupled**: Integration: Point to Point, DB Links, Flat Files, Batch.
- **Low Visibility**: Black boxes. No visibility to the business. Difficulty for making decisions of Directors and Managers.
What is Service Oriented Architecture?

- SOA – Service Oriented Architecture is an architectural style of building software systems, based on the paradigm of service re-use and composition.

- Software architecture concept focused on service reuse to support new business requirements (Wikipedia).

- Paradigm for organizing the distributed capabilities that can be controlled by different business domains.
**Services Classifications**

Four Major types include:
- Application Services
- Information Services
- Integration Services
- Process Services

Other Services:
- Infrastructure Services
- Presentation Services
SOA - Service Reuse & Composition
Complementary Technologies & Methodologies to SOA

- **SOA MUST** be used in conjunction with other technologies and methodologies from Software Industry for the successful transformation and business improvement:

  ✓ Enterprise Architecture (TOGAF, FEAF)
    ✓ Arquitectura de Software
    ✓ Arquitectura de Informacion.
    ✓ Arquitectura de Integracion.
    ✓ Arquitectura de Tecnologia

  ✓ IT Governance (ITIL, COBIT, MOF) for Service control and Improvement

  ✓ Business Process Management (BPM, BPMN)

  ✓ Project Management (PMP)
Zachman - Enterprise Architecture
What are the components of an Enterprise SOA Solution?
Portfolio of “REUSABLE” Services - Instead of a Massive Bunch of “NON-Reusable” Services
Enterprise Service Bus:
Connectivity, Adapters, Routing, Transformation
Every business event generates a business reaction
Business Process Engine

Coordinates the execution’s sequence of services:

Information, Application, Integration
Technology Evolution to:

Service Oriented Architectures (SOA)

Packaged Apps
Custom Apps
Point-to-point integrations

Service-enablement
Loose-coupling
EAI Patterns
Legacy Modernization

+ IT Simplification
+ Rapid Application Composition
+ Flexibility & Adaptability
+ Business Service Reusability
+ Business and Technology synergies
SOA Integration Architecture

11g Service Infrastructure

Mediator

Business Rules

BPEL

Human Workflow

Oracle Service Bus

Common JCA-based connectivity infrastructure

Policy Enforcement

Service Assembly, Orchestration

Service virtualization, Shared Service Gateway, Monitoring

Application composers

IDE

Web-based console

SOA Operations

Optimized binding

RegRep

BAM

B2B

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Real-Time Business Event Architecture

EDA delivers real-time event processing for monitoring, analyzing, and acting on business process optimization.
Business Process Architecture

BPA

Shared BPMN Model

BPM Studio (with Business and IT views)

BPMN 2.0
BPEL

BPEL

BPMN

Human Workflow

Business Rules

Mediator

Unified Runtime

Common JCA-based connectivity infrastructure
Policy Manager

Oracle Service Bus

BAM

Optimized binding

B2B

Repository

Rich End User Interaction

Worklist

Process Portal

MS Office

Web-based customization

Process Composer

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Scalable Architecture

Grow your Business on-demand!

Oracle Application Grid

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Oracle SOA Architecture Benefits

- **Complete**: Comprehensive SOA Offering
  - Broad & Deep Offering
  - Lower Cost, Lower Risk

- **Integrated**: Designed to Work Together
  - Less Effort
  - More Value

- **Open**: Standards-Based Architecture
  - More Choice
  - Maximizes Existing Investments

- **Best of Breed**: Industry Leader
  - Robust, Proven Industry leading Software

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The following cases are recommended for implementing SOA in enterprises:

- Secure, non-intrusive application’s Integration.
- Business Dashboards
- Centralized Auditory and Security
- Incremental Modernization of Legacy Systems.
- Information Consolidation and Exposure.
- Multi-Channel Applications. (Internet Online-Services, Mobile Applications, IVRs)

PLAN YOUR ARCHITECTURE! AND GOVERN ITS IMPLEMENTATION TO IMPROVE THE QUALITY, EFFICIENCY AND RELIABILITY OF YOUR BUSINESS!
Define your Enterprise Architecture, NOT ONLY your Technology Architecture
About ONE IT WORLD

- ONE IT WORLD CORPORATION (USA)
- GENERAL DIRECTOR & CO-FOUNDER | SEP 2009
- www.oneitworld.com

- Specialized Services: ARCHITECTURE, IT GOVERNANCE, SOA, BPM
- Industries: Banking | Financial sector | communications | Government.
- Partnerships with major technology and standards organizations in progress!

Partners: Technology & Standards

Oracle ACE

Oracle Technology Network (OTN)

Oracle ACE Program

Oracle Architect Center

Open Group

TIDAF
The Open Group Architecture Framework

ISACA
Information Systems Audit and Control Association

COBIT
¡THANK YOU!

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