# INFORMATION TECHNOLOGY EVOLUTION
# From Products To Services

*Presented by*

**Donald R Deutsch**
**Vice President, Chief Standards Officer**
**ORACLE**

September 29, 2015

Part of the **World Standards Week 2015** series of events

# Overview

## Agenda

— Oracle's standards engagement

— Standards impact on Oracle's business evolution

— Changing role of services at Oracle

— Standards and Cloud Computing

— Conclusion – The World is Changing

# Rationale for Standards Engagement

**Customer requirements drive Oracle participation in external Standards Setting Organizations (SSOs)**

— Open standards provide <span style="color:red">interoperability</span>

— Customers feel comfortable that they are not "locked-in"

**Open standards benefit Oracle**

— Save time and money to invest in capabilities that improve our products versus competition:

- Increase performance
- Value added features

**Standards conformance differentiates us from competitors**

# Metrics for Oracle's Standards Engagement

**300+** Employees Engaged in Standards Globally

Representation in **400+** Technical Working Groups and **60+** Administrative or Policy Committees

**270+** Leadership Positions

Participate in more than **100** Standards Setting Organizations

# Role of Standards in Oracle's History

**Early Years:** Oracle = SQL Relational Database (RDBMS)

❑ Software Development Labs founded in 1977

❑ Participated on equal basis with then dominant multi-national companies in developing the SQL standard

❑ Released first commercial SQL product, ORACLE

**Middle Years:** Oracle = Enterprise Software Vendor

❑ Expanded portfolio of software products: Middleware Infrastructure, Applications Suites, Systems Management

❑ Standards facilitated growth through acquisition

❑ Internet changed everything

❑ Interoperability is essential and requires standard interfaces

# Oracle Today

**Software, Hardware, Services – Engineered to Work Together**

— Sun acquisition added hardware to product mix

**Growth through acquisition continues**

— Vertical Industry Market Focus

**Standards play key role in continued success**

**The IT world is changing again => Cloud Computing**

— Different product deployment and business model

— Pervasive impact in IT companies including Oracle

# Changing Role of Services

**Oracle services traditionally supported products**

— Pre and post sales support

— Product implementation and customization

**Transition from product to cloud services focus**

— Full range of cloud offerings:

- SAAS = Software as a service

- PAAS = Platform as a service

- IAAS = Infrastructure as a service

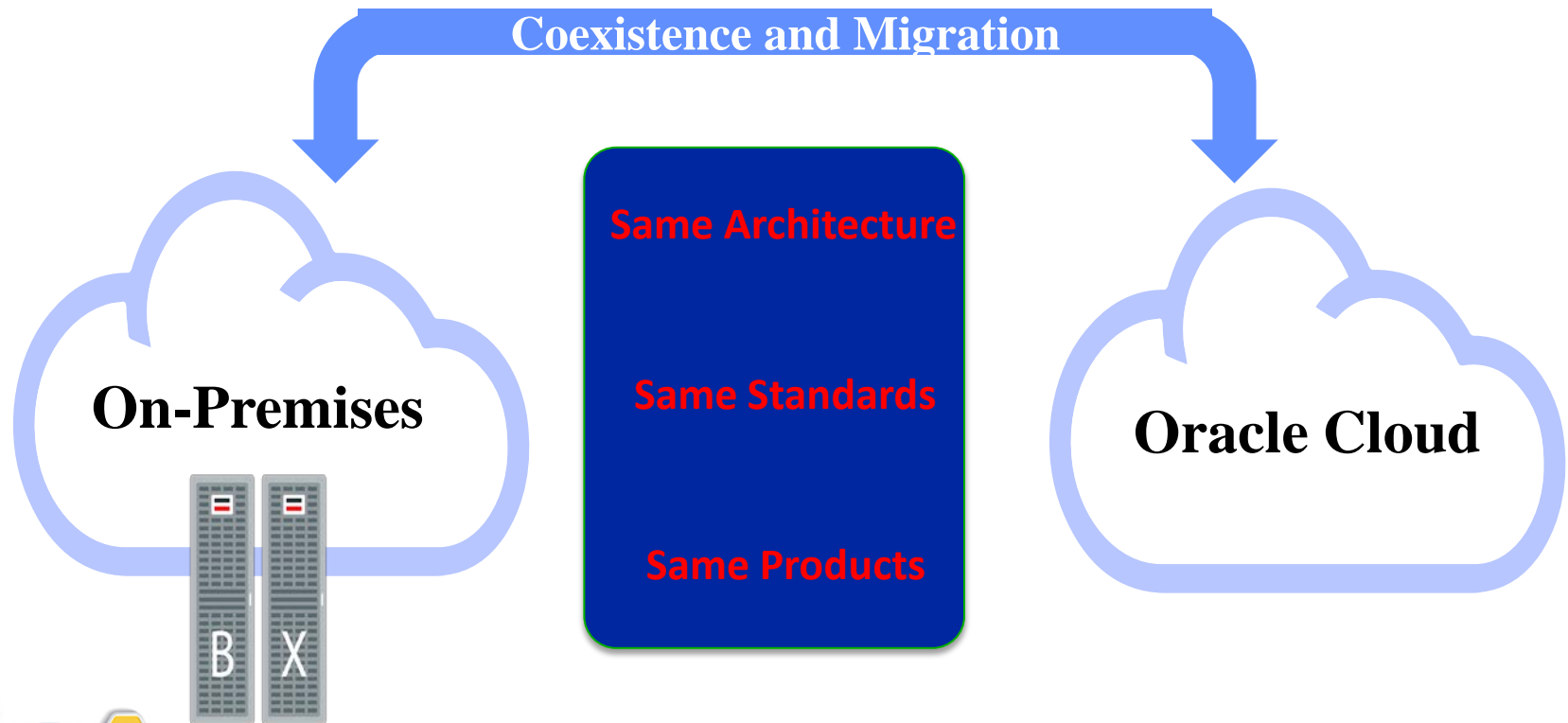— Standards-based components in all 3 service tiers

**Products on-premises compatible with cloud services**

**=> Customer Choice**

# Oracle Cloud SaaS And PaaS

**100% Upward Compatibility with On-Premises Enables Easy Coexistence and Migration**

Coexistence and Migration

**On-Premises**

**Same Architecture**

**Same Standards**

**Same Products**

**Oracle Cloud**

B X

**Transparently move workloads between On-premises and public cloud**

# Cloud Computing Standards – Providers View

**No consensus among technology providers**

— Whether/which standards are needed beyond those already established or being developed for components of Cloud Computing deployment

— Where willing to cooperate versus compete

**Why so many Cloud Computing standards effort?**

— Demand pull from eager potential customers

— New and newly invigorated stakeholders, especially governments

— Want standards now to support near-term move to cloud

# ISO/IEC JTC 1 SC 38
# Cloud Computing and Distributed Platforms

**Published initial Cloud Computing (CC) standards**

- ISO/IEC DIS 17788: Overview and Vocabulary
- ISO/IEC DIS 17789: Reference Architecture

**Progressing multi-part standard for Cloud Computing Service Level Agreement (SLA)**

- Part 1:  Overview and Concepts
- Part 2:  Metrics
- Part 3:  Core Requirements

**Recently initiated projects**

- Interoperability and Portability
- Data and their Flow across Devices and Cloud Services

# Conclusion - Cloud Computing Standards

## Work To-Date Foundational/Non-Technical
- Mis-match of skills/processes
- No "green-field" technical standards development

## Demand for standards that
- Facilitate acquisition of Cloud Computing services
- Reduce user risk
- Increase competition among CC service providers

## Management system and process standards rather than technology interoperability standards

# Conclusion – The World is Changing

**Moving IT business focus from products to services**
— Driven by users, especially governments
— Users want standards to support transition

**Increased role/influence of governments**
— Some governments seeking to regulate Cloud services as a new or telecommunication industry

**Impacting all aspects of IT, including standards**
— Mis-match of standards setting forums and participants' skills with CC standards requirements

# QUESTIONS?

**Dr Donald R Deutsch | Vice President, Chief Standards Officer**
ORACLE | 500 Oracle Parkway, 5op3 | Redwood Shores, CA 94065
Phone - Office: +1 650.506.2275 | Mobile: +1 650.303.7096
Email: donald.deutsch@oracle.com