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Lessons Learned and Practical Approaches to Cloud Architecture and Implementation

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Ivan Lazarov, Chief Architect, Intuit
Agenda

- Introductions
- Cloud Architecture and Implementation Strategies
- Intuit’s Journey into the Cloud
- Additional Information
- Q&A
Introductions

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Enterprise Architect

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Director  
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Enterprise Architect
How can we reduce risks and complexity associated with a Cloud Computing initiative?

Common Challenges

- Which cloud model is right for us?
- Will we achieve our desired return on investment?
- Will anyone use the cloud?
- How will we manage our cloud?
- What capabilities do we need to build?
### Which Cloud Computing Model is Right for You?

<table>
<thead>
<tr>
<th>Deployment Model</th>
<th>Service Model</th>
<th>Operating Model</th>
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<tbody>
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Which Cloud Computing Model is Right for You?

**Deployment Model**
- Private
- Public
- Hybrid

**Service Model**
- Applications (SaaS)
- Platform (PaaS)
- Infrastructure (IaaS)

**Operating Model**
- Customer Owns
  - Customer Operates
- Provider Owns
  - Provider Operates
- Customer Owns
  - Provider Operates
Which Cloud Computing Model is Right for You?

**Deployment Model**
- Private
- Public
- Hybrid

**Service Model**
- Applications (SaaS)
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**Operating Model**
- Customer Owns Customer Operates
- Provider Owns Provider Operates
- Customer Owns Provider Operates
Starting Your Roadmap to Cloud Computing

The Enterprise Architecture Perspective
- Overcoming the challenges
- Practical advice

Real World Cloud Computing Case Study
- The journey
- Lessons learned
Cloud Architecture and Implementation Strategies
The Evolution of IT

- Silos Still Holding IT Back
- Cost Focus Shifting to Agility
- Increasing Pressure To Move Forward
- New Strategies are Required

Past 4-6 Years
- IT Silos
  - Still Here
- Standardization
  - In Progress
- Consolidation

Next 3-5 Years
- IT as a Service
  - Cloud Computing
- Shared Services
- Goal
  - Limited
  - In Progress
Enterprise Architecture

Have the Right Architecture

- Enterprise Architects Required
- Paint the Big Picture!
- Align IT with the Business
- Leverage TOGAF, OEAF/OADP, FEAM
- Own the Architecture Portfolio
Plotting the Course

Where to Start?

- Determine the “Who?”, “What?”, and “When?” before the “How”!
- Define the Services you want to deliver in your Service Catalog
- Identify your SLAs and QoS tiers
- Define your business model
- Identify the capabilities required to delivery your services
- Now Look at the Technology

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Cloud Capabilities

Which Do You Need? When?

- Take a Pragmatic Approach
- Align Back to Service Catalog
- Start with a Strong Foundation
- Develop a Capability Roadmap
Design Choices

Connecting Back to the Service Catalog

- Which service and deployment models make the most sense?
- What should I virtualize? At which layer?
- How do I align my architecture with my SLAs for up-time and performance?
- How do I ensure end-to-end security?
Making a Profit and Recovering Costs

Chargeback or Showback?

- In a private cloud, will business units pay for the lights?
- When using a public cloud, who will control the tap?
- As a cloud provider, how much should you charge?
Moving Past Silos

Breaking Down the Walls

- IT has to be **"Customer Centric"**
- Leverage ITIL/ITSM and DevOps to Reorganize
- Use Governance to Mediate
- Measure with KPIs and SLAs
- Have a Core Cloud Team
Making the Right Moves

Implementation Strategies

- Do POCs first and test your key use cases!
- Eat Your Own Dog Food or Buy Off the Shelf
- Cloud First for New Apps and Services
- Use Data Center Consolidation Projects as the Stick
What to Avoid?

Jumping Without Looking

- Big Assumptions
- Silo Architectures
- Taking Shortcuts
- Don’t Forget the Basics
Intuit’s Cloud Journey
Intuit Overview

- Leading provider of financial management, tax and online banking solutions for consumers, small and mid-sized businesses, accountants and financial institutions.
- Founded in 1983; Public in 1993
- Flagship Product Lines: QuickBooks, Quicken and TurboTax
- #57 on World’s Most Innovative Companies – Forbes 2012
- Annual Revenue: $4B
- Leading SaaS provider
- Employees: 8000
Business Units Looking For Ways to Accelerate Growth

Cloud = Innovation

• Services... features become apps & connected
• Data... exploit in cloud, any device, insights
• Platforms... enable 3rd party contribution

Accelerate Global

• 30+ countries in 3 years
• Enable offerings (hosting, biz solutions)
• Enable Intuit (HR & finance)

Deep Customer Empathy

• Rapid experimentation
• Personalization
• Care is a differentiator
Core capabilities: how we differentiate...

Intuit applies two core capabilities to delight customers...

**Customer Driven Innovation**
- Find an important, unsolved customer problem
- ...that we and those we enable can solve well...
- ...and build durable competitive advantage

**Design for Delight**
- Deep customer empathy
- Go broad to narrow

**Network Effects**
- More Users
- More benefits to users
- More Contributors
- More benefits to contributors

**Virtuous Circle**
- Vision
  - Idea
  - Learn
  - Leap of Faith
  - Experiment

More Users

More Contributors

More benefits to users

More benefits to contributors
Dependencies and Constraints

Development

Solution Scope and Plan

Infrastructure Design

Build

System, Performance, Reliability, and Availability Test

Release

Functional

Functional Design

Build

Operations

Monitor

Stage

Patch & Upgrade

Governance

Infrastructure Admin

Manage & Optimize

Planned

Unplanned

Triage

Fix
Lessons Learned

• People
  – Business and IT must work together to achieve outcomes
  – Define clear ownership of architecture domains

• Process
  – Identify most critical business process to enable
  – Define a good governance structure and procedures

• Technology
  – Identify the Capabilities Required and Systems of Record
  – Don’t virtualize everything
Additional Information
Oracle Consulting Services for Cloud
Flexible Service Offerings to Reduce Risks and Accelerate Results

Roadmap to Cloud

- Cloud Blueprint and Roadmap Service
- Cloud Detailed Design Service
- Cloud Management Rapid Start
  Fusion Infrastructure Installation
- Cloud Migration Factory
Visit Anytime
For More Information

oracle.com/goto/EA

Visit @ Oracle OpenWorld
Meet an Architect at the Consulting Center:
Moscone West, Level 3, adjacent to lobby

Demos:
1. Helping You Successfully Migrate to the Cloud (Moscone West, W-022)
2. Oracle Consulting: Optimizing Your Engineered Systems Environment (Moscone South, S-170)
Summary

- Enterprise Architecture is Key to Success in the Cloud
- Align IT to your Business
- Take Incremental Steps towards Cloud Computing
- Avoid Common Pitfalls
- Oracle can help you on your journey today!
Q&A
Hardware and Software

Engineered to Work Together