

Architecting the Cloud

How Enterprise Architects Should Think about Cloud Computing

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Cloud Computing: Old Wine in New Bottles

Utility Computing
Pay-as-you-go financial model

Software as a Service
Access to third-party hosted apps

World Wide Web
Internet-based Applications & Protocols



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Application Service Providers
Third-party hosted infrastructure

Virtualization
Abstracted physical infrastructure

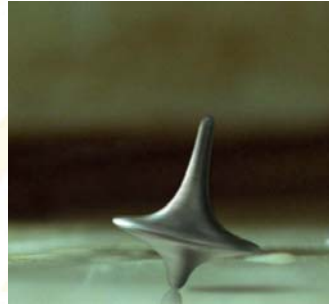
On Demand
Dynamic provisioning

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Vendor Spin

- Promise of Cloud Computing: *you don't have to buy enterprise software any more!*
- Vendor response: you must buy or rent hardware and/or software to do Cloud Computing!
- Private Clouds = virtualization in your own data center (been there done that, but now buy more gear!)
- PaaS = rent middleware from the middleware vendors (you paid for it before, now pay for it again!)



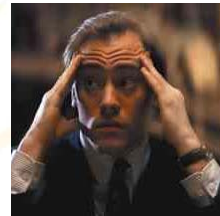
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The Enterprise Perspective

- Complex, dynamic business problems
- Complex, heterogeneous IT landscape
- How does Cloud Computing fit into this mess?



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Cutting Through the Hype

Architecture & Governance

- What business problems does Cloud best address?
- How does Cloud fit into your IT strategy?
- What are pros & cons of Cloud vs. alternatives?
- How does Cloud fit into your governance framework?
 - How does Cloud governance relate to existing governance initiatives?
 - What are your policies that apply to the Cloud?
 - How will you create, communicate & enforce those policies?

Don't let the vendors drive!

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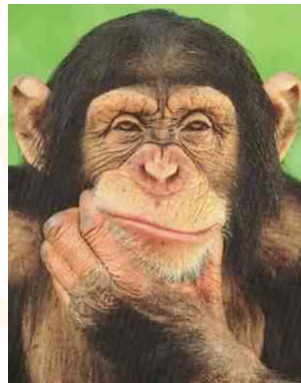
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How *Not* to Think About the Problem

- What is the *Enterprise Context* for Cloud Computing?



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This is your app?

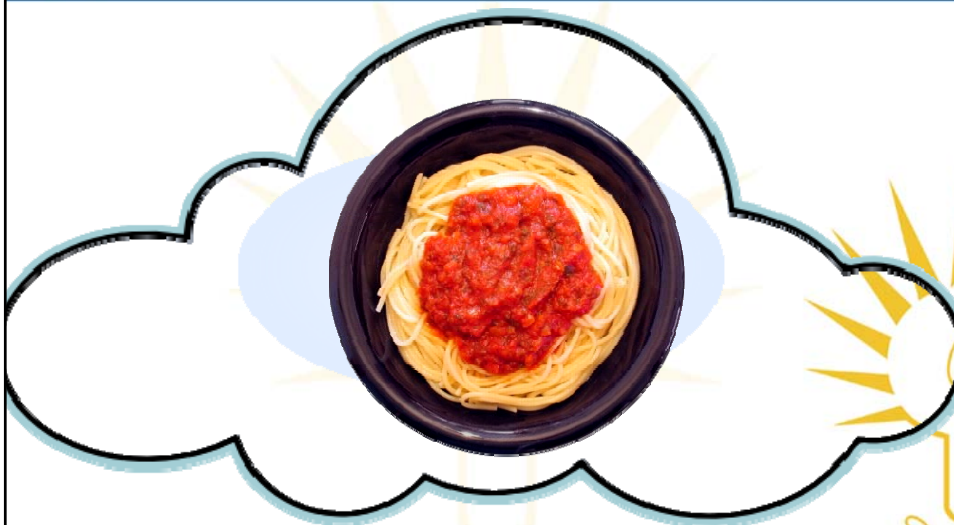


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This is your app in the cloud?

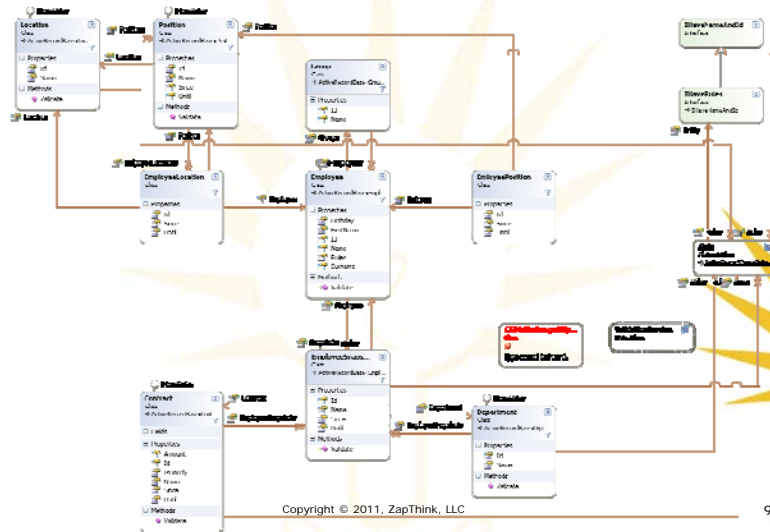


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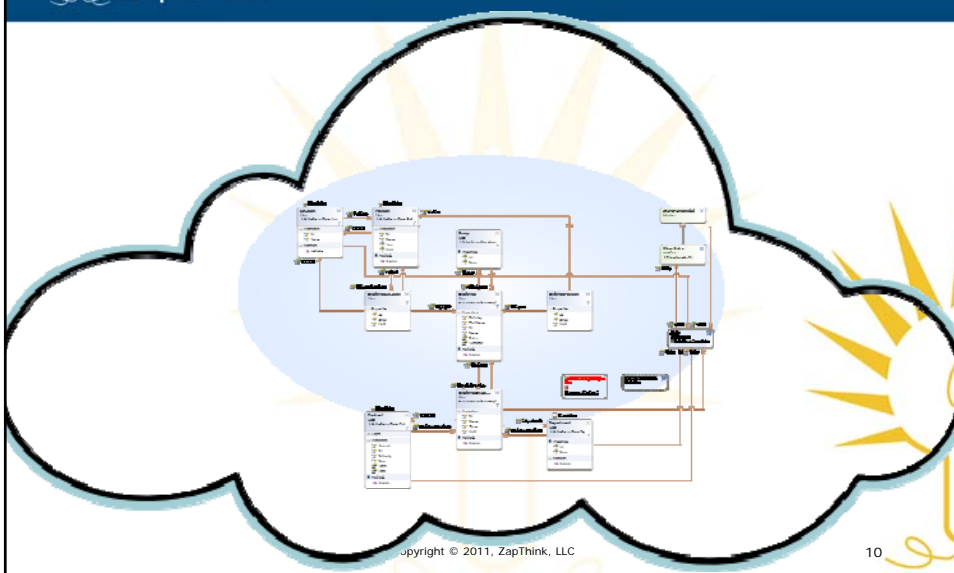
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This is your app?



This is your app in the cloud?





No More Old Wine!

- Cloud changes the Enterprise IT landscape
- Enterprise IT recasts the Cloud value proposition



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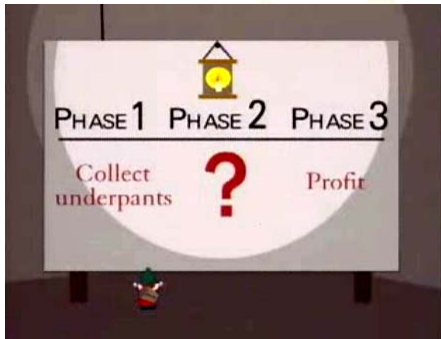


Elements of an Enterprise Architecture Cloud Strategy





EA Cloud Strategy (1)



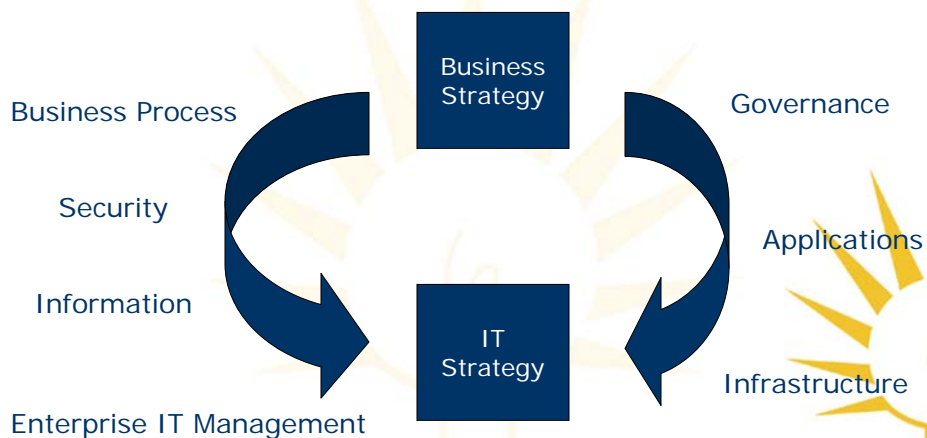
- Begin with business objectives
- Develop technology initiatives to support business objectives
- Determine current Enterprise Architecture
- Leverage existing assets

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EA Cloud Strategy (2)



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EA Cloud Strategy (3)

As-Is State

Transition Strategy

Greater Agility

Application Modernization

Managed Services

Application Rationalization

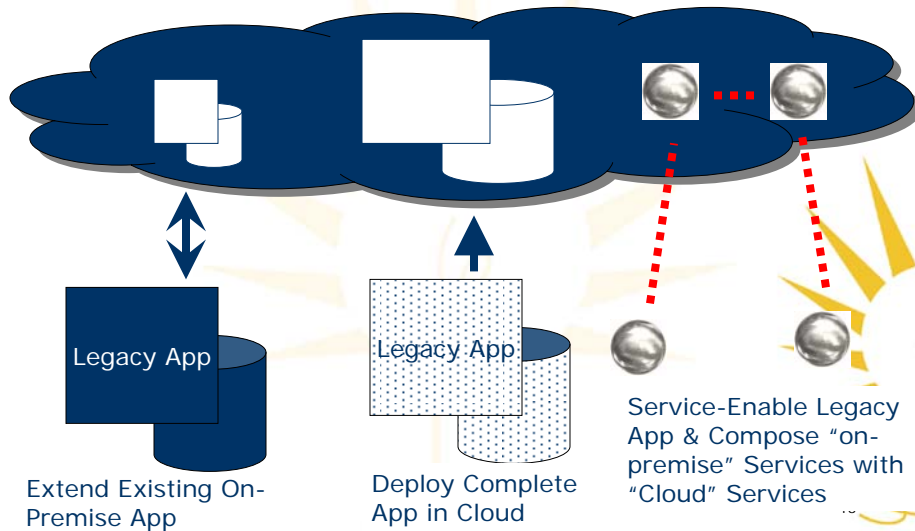
- Forward engineer target environment
- Governance leads to sustainable Enterprise Architecture

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Cloud Deployment Choices





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Cloud Computing Roadmap

1. Culture/support assessment
 - Are you an early adopter?
2. Define goals
 - Financial
 - Operational
 - Competitive
 - Service levels
3. Quantify benefits
 - OpEx vs. CapEx
 - Performance targets
 - Top-line benefits
4. Define role of Cloud for business & IT
 - Which applications, Services, other capabilities
5. Mitigate risks
 - Governance
 - Security
6. Choose Cloud models
 - Public, private, hybrid
7. Create migration plans & milestones



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Architect for the Cloud

- You must (re)architect your app to take advantage of Cloud benefits
 - Elasticity
 - Fault tolerance
- You'll end up with a better architected app!



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Thank You!

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