# Inter-Enterprise Architecture -- For Common Service and Cloud Adoption

Yan Zhao, PhD,

Chief Architect, ArchiTech Consulting LLC

yan.zhao@architechllc.com

www.architechllc.com

Feb. 9, 2011

## **Content Summary**

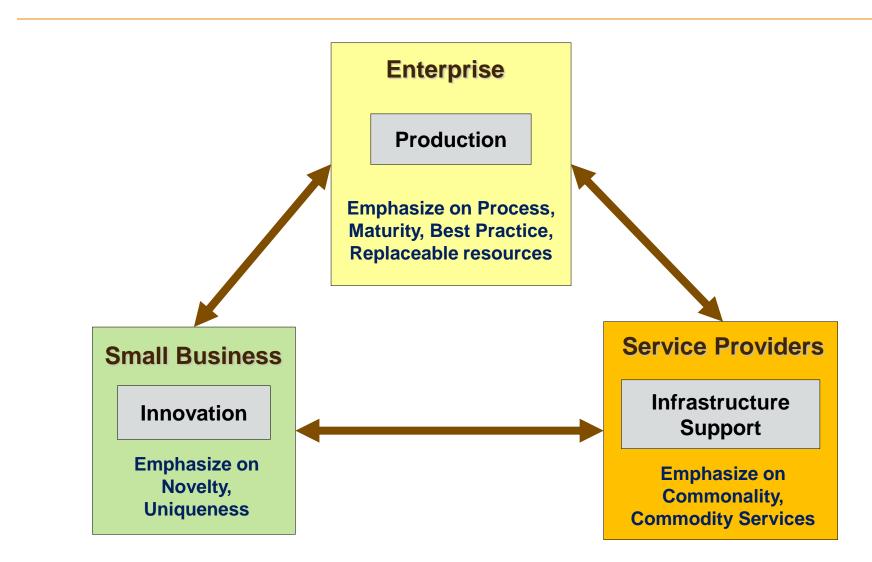
- The need for Inter-Enterprise Architecture (IEA)
- Enterprise landscape evolution
- The Impact of cloud computing and social media
- The notion of IEA
- The relationship of IEA with other concepts
- The challenges that the enterprises are facing
- Possible IEA adoption for transition
- Conclusion

# **The Need for Inter-Enterprise Architecture**

#### The evolution of enterprise landscape

- Influence and dependency beyond enterprise boundary
  - Global networking and boundary-less information flow
  - Common service commoditization
  - Necessity in partnership and collaboration
- Technology enablement encourages the changes
  - Service orientation
  - Cloud computing
  - Social media and networking
- The need for enterprise to understand its business environment
  - The context, partnership, and interaction mechanisms
    - For business proposition and game planning
    - For awareness of the growing mutual influence and dependencies (more correlated than ever before)
  - Inter-enterprise restructuring are happening
    - Fo fit the new economy and changing paradigm
    - > To evolve the roles and responsibilities of the players
- Enterprises are being affected not only internally, but also externally
  - Not only good-sized enterprises need architecture, small ones need it too
- If EA is like a city plan, IEA is more like a plan for the metropolitan

## **Enterprise Landscape Evolution**



# The Impact of Cloud Computing and Social Media

### The impact of Cloud Computing

- Infrastructure service commoditization
- Role and responsibilities redistribution
- Business specialization
- Encourage collaboration beyond business organization boundary
- Small and mid-sized companies tend to adopt public cloud services
- Big companies start from private cloud implementation

### The impact of social media

- Boundary-less information penetrating business organizations
- Informative .vs. confusion
- The needs for knowledge management
- New opportunities to benefit businesses: marketing, sales, CRM, customer service, etc.
- New business social mechanisms can be integrated into enterprise business architecture and strategic plan
- New business models and service models should be created
- New tools should be invented to support the new business and service models and their execution mechanisms

# **Notion of Inter-Enterprise Architecture**

#### The scope

- Business domains: healthcare, education, financial service, retail, etc.
- Service domains: service providers, service consumers, service facilitators

#### Context and environment

- Identify the context for the targeted business organization or organizations
- Identify associated business environment

#### Role and responsibilities

Identify the roles and responsibilities of the players

#### Structure, components and relationships

- Identify the structure and describe the influential components
- Identify and describe the relationships between the components and to the targeted business organizations

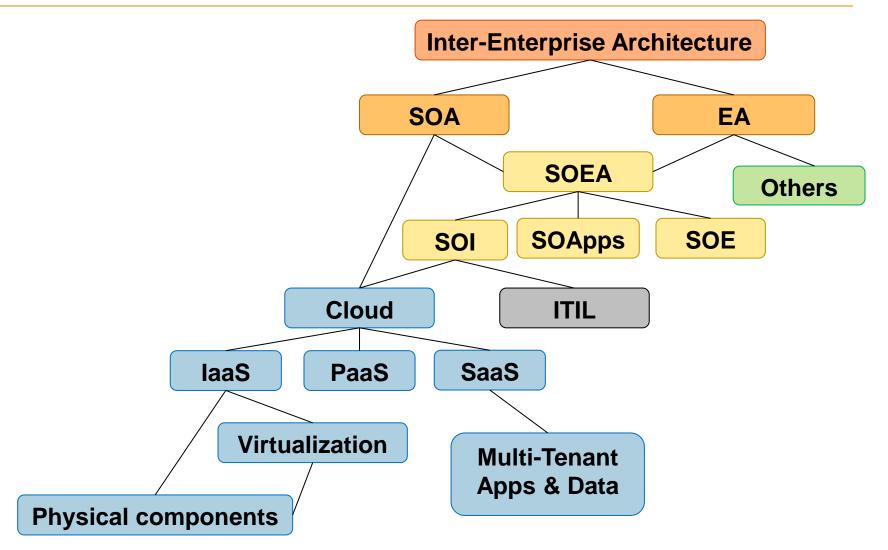
#### Interaction mechanisms

Identify media, channels, and mechanisms for interaction

#### Business process and Information flow

- Describe business and inter-business process flow
- Describe information flow through identified media and channels

## The Scope and Relationships of IEA, EA, SOA, SOEA, SOE, SOI, Cloud Computing, ITIL



# **IEA for Cloud Computing**

#### Demonstrate the evolving landscape

- The emerging new players for service provisions, consumption, and facilitation
- The roles and responsibilities of all players, as well as the targeted organization

#### Describe new business environment

- An environment of partnership, collaboration, and mutual dependencies
- The business dynamics

#### Describe inter-business structure

- New business models and service models with involved parties
- Components, relationships, process and data flow
- Interaction channels, media, and mechanisms

#### Guide cloud computing adoption

- Business cases, concept of operation
- Solution options
- Technical implementation options, flexibility for changes in vendors and technologies.

# **The Challenges Enterprises are Facing**

## Understand the impact of new paradigm

- Separate common services from unique functions
- Maximize loosely coupled services to reduce complexities and lessen the impact of changes

## Organization structure

- Loosely coupled service organizations break stove pipes and promote collaboration
- Dynamic relationships between service providers and service consumers

## Organization culture

- Transform vertical connections to horizontal collaborations
- Change management style from command and control to motivation and facilitation

## Adoption of new tools

- Enable effective common service adoption
- Enable collaboration inside and beyond enterprise

# **Possible IEA Adoption for Transition**

### Guide transition to new paradigm

- Be aware of reforming industry, and new business environment
- Help situation studies, strategic planning, and decision making
- Architecture formation by intent, not by accident
- Evolution of organizational structure, culture, and operation model to suit common service adoption and cross organizational collaboration
- IEA practice makes cloud computing and social media adoptions more effectively
  - In new inter-business solutions via cloud computing
  - In adapting to new inter-business relationship and dynamics via social media

## Examples of IEA for cloud service adoption

- Shopping Mall on Cloud
- Library on Cloud
- Special business domain oriented cloud
- IEA should guide public cloud adoption, not other way around

# Conclusion

## This presentation discussed:

- The changing business environment and landscape associated with internet revolution, including cloud computing and social media
- The needs for IEA: the useful blueprint for enterprise is beyond enterprise boundary
- The notion of IEA, and its relationships with other efforts
- The possible adoption: IEA should guide public cloud implementation, not other way around
- The Open Group is a good forum to explore IEA, due to its global nature and cross-industry participation.
- The economic down turn is a good time to rethink, and to plan ahead