Enterprise Architecture and Academia

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Terminology Baseline

Enterprise Architecture

Business Architecture

How the business is organised to meet its objectives

Information Systems Architecture

How information systems support the objectives of the business

IT Architecture

Technology Architecture

How the technology fits together
Scoping

- We are looking for skilled Enterprise IT Architects
  - who are capable of leading major Enterprise IT Architecture projects
- Together with domain IT Architects
  - Who are able to participate as members of the Architecture team
Problem Statement

- Growing recognition that Enterprise Architecture is important
  - Business benefits
  - Regulatory environment

- Rapidly growing demand for all types of IT Architect

- Protracted process for development of IT Architects

- There is a shortage of top class Enterprise Architects
  - Great for architects
  - Not so great for business

- We are developing measures
  - Now we need to deliver the IT Architects
Long Term Vision

- Enterprise Architecture is a recognized profession in its own right
  - Recognized body of knowledge
  - Recognized professional qualification based on knowledge, experience and proven competence
  - Recognized career development path
How other professions operate

- Acquire the knowledge
  - Licensed undergraduate university courses built around a standard body of knowledge
  - Often involving periods of practical experience under supervision
  - Specialised postgraduate courses
- Gain the experience
  - Structured on-the-job training to demonstrate expertise and acquire experience (internships)
- Accreditation
  - Some form of examination to achieve acceptance into the profession

- Examples
  - (Building) architects
  - Law
  - Medicine
  - Accountancy

- Escape Routes
  - Recognized routes for those who are not able to “stay the course”
  - Valuable roles as supporting team members
IT Architect Certification

- Launched by The Open Group in mid 2005
- Based on knowledge, experience and competence
- Certification based on peer review
  - More than 1700 architects have achieved certification in first year of operation
  - Supported by major companies
  - Program already has industry acceptance and critical mass
ITAC – What is the Problem?

- There is no recognized career development path
  - The majority of IT architects “drift” into that field after long IT experience

- The involvement of academia is currently unstructured
  - Too many universities still churning out computer scientists who lack the relevant skills required by 21st century employers
  - Some universities are offering content relevant to IT Architecture
    - No commonly agreed body of knowledge or syllabus
    - In general, these courses are well kept secrets
TOGAF Skills Framework

- Developed by Architecting-the-Enterprise and contributed to the The Open Group Architecture Forum, defines:
  - Different types of architecture roles
  - Types of skills required for each of these roles
  - Level of capability required in each skills area

- The skills profile identifies the Enterprise Architect as “Architecture Manager”
  - Represents the baseline requirements for IT Architect Certification
Enterprise Architect skills

- Enterprise Architect skills go well beyond the world of IT and include:
  - Business
  - Legal
  - Management
  - Behavior
Current Development of an Enterprise Architect

Unstructured career development process

Certified IT Architect
Possible Future Professional Development Path for an IT Architect

**Standard Body Of Knowledge**
- Technology
- Business
- Law
- Management
- Architecture

Skills Frameworks → Industry → Academia → Bachelor/Masters Enterprise IT Architecture → Structured Industrial Experience (Diploma) → Certified IT Architect
The Academic Challenge

- Many academic institutions transitioning from pure Computer Science to include more Business and Enterprise Architecture content
  - How do we converge these into the long term vision of Enterprise IT Architecture as a profession?
  - How do we promote the value of these courses to potential students?
  - How do we build the partnership between industry and academia to build the structured career development path for Enterprise IT Architects
Barriers

- We don’t yet have an agreed body of knowledge

- Creating a new degree course has significant lead time (especially undergraduate degrees)
  - Design course and get approval (1-2 years)
  - Promote to potential students (1-2 years)
  - First course (3-4 years)

- Lead time from concept to first graduate is between 5 and 8 years

- Enterprise Architecture is likely to take longer because of the need to involve multiple “schools” to cover the complete syllabus
Proposed Work Plan

- Build relationships with academia
  - Institutions already offering or wishing to offer curricula with Enterprise Architecture content
  - Academic Partnership with Association of Open Group Enterprise Architects

- Build relationships with industry
  - Organisations wishing to assist in the development of the Enterprise IT Architecture career development path
Long-term goal [10 years]

- Agree standard body of knowledge for academic EA courses
- Establish body/bodies to accredit courses
  - Worldwide recognition
  - Industry acceptance
Medium-term goal [2 years]

- Define minimum level of Enterprise Architecture content for course to be of value to industry
- Establish interim mechanism for recognition of courses
Short Term [2007]

- Establish showcase to promote existing courses that claim to have Enterprise Architecture content

- Establish standard TOGAF courseware for academic use under academic license

- Establish register of other Enterprise Architecture courseware available for academic use
  - Provided by academia
  - Provided by industry
Mode of Operation

- Activities will operate within the framework of the Association of Open Group Enterprise Architects

- The majority of work to be accomplished virtually
  - Web
  - E-Mail
  - Discussion Forums
  - Teleconferences
Academic Participation

- Academic Institutions need to become Academic Partners with the Association of Open Group Enterprise Architects
  - **No cost**
  - Lightweight agreement with few obligations

- An academic partner must be an accredited establishment of higher education, such as a college or university, that helps prepare students (at undergraduate or postgraduate level) for careers in Enterprise Architecture and/or embark on advanced research projects in the field of Enterprise Architecture.
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