Agile Enterprise Architecture: Oxymoron or Savior?

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Agenda

• Wouldn’t you like to...
• Enterprise architecture
• Agile enterprise architecture
• Enterprise architecture and Disciplined Agile Delivery (DAD)
• Parting thoughts
 Wouldn’t you like to...
Wouldn’t your development team like to...

• Get guidance regarding key architecture decisions
  – e.g. So that you can safely start coding?

• Easily leverage existing systems, data sources, ...
  – e.g. So you can focus on providing new value?

• Have people who can mentor you
  – e.g. So that you can learn new skills?

• Have sensible development guidelines to follow
  – e.g. So that you can develop higher quality solutions?

• Have a tooling infrastructure that supports those guidelines
  – e.g. So that you can efficiently develop those solutions?
Wouldn’t your organization like to...

• Maximize their return on investment (ROI) in IT:
  – e.g. Spend the money wisely?

• Have systems which provide consistent and valuable behavior and data?
  – e.g. Get solutions which meet their actual needs?

• Have flexible systems which can easily evolve to meet new market opportunities?
  – e.g. Achieve true business agility?
Enterprise Architecture
Defining Enterprise Architecture (EA)

Process-based definition*:
The process of translating business vision and strategy into effective enterprise change by creating, communicating and improving the key requirements, principles and models that describe the enterprise's future state and enable its evolution.

Artifact-based definition**:
The organizing logic for business processes and IT infrastructure reflecting the integration and standardization requirements of the company's operating model. The operating model is the desired state of business process integration and business process standardization for delivering goods and services to customers.

*Gartner
**MIT Center for Information Systems Research (CISR)
The Potential Scope of Enterprise Architecture

Your enterprise architecture program may address:

- **Enterprise business architecture.** Understanding the business domain and developing a business vision

- **Enterprise IT architecture.** Identifying the existing and desired IT technical environment (may be sub-divided into information architecture, security architecture, communications architecture, solution architecture, ...)

- **Facilities planning.** Identifying and planning for physical buildings and supporting infrastructure

- **Portfolio management.** Identifying and governing potential and existing projects and product teams

- **IT Governance.** Overseeing, guiding, and enhancing all aspects of an organizations information technology ecosystem
Common Enterprise Architecture Configurations

Enterprise IT Architecture

Enterprise Business Architecture

Portfolio Management

IT Governance

Facilities Planning

Enterprise Architecture
Common Enterprise Architecture Configurations

Enterprise Architecture

- Enterprise IT Architecture
- Enterprise Business Architecture
- Portfolio Management
- Facilities Planning
- IT Governance
Common Enterprise Architecture Configurations

Enterprise Architecture

Enterprise IT Architecture

Enterprise Business Architecture

Portfolio Management

Facilities Planning

IT Governance
What do Enterprise Architects Produce?

- Business goals: 67%
- System inventory: 65%
- Architecture principles: 64%
- Development guidelines: 55%
- Reference architectures: 44%
- "As is" models: 38%
- "To be" models: 33%
- White papers: 29%

Source: Dr Dobb’s January 2010 State of the IT Union Survey
Do you have an EA program?

- 34% No
- 30% Yes
- 17% Yes, and expanding
- 10% No, but we’re thinking about starting one
- 9% No, but I’ve experienced EA in other organizations

Source: Dr Dobb’s January 2010 State of the IT Union Survey
EA Success Factors

People Issues:
  #1 Active involvement of business leaders
  #2 Active involvement of IT leaders
  #3 Enterprise architects are active participants on project teams
  #4 Enterprise architects are trusted advisors of the business
  #5 Flexible enterprise architects

Business Issues:
  #6 Having a business case for EA efforts
  #10 Cost reduction

Process Issues:
  #7 Continuous improvement/evolution of EA artifacts
  #8 Architecture reviews
  #9 Appropriate governance
  #11 Master data management (MDM)

Source: Dr Dobb’s January 2010 State of the IT Union Survey
EA Failure Factors

Business Issues:
- #1 Insufficient time provided
- #3 Too difficult to measure benefits
- #6 No perceived benefit of EA program
- #7 No executive endorsement
- #10 Insufficient funding
- #12 Cancelled due to political issues
- #13 EA program successful but terminated

People Issues:
- #2 Project teams didn't take advantage of the EA
- #4 Enterprise architects perceived as "ivory tower"
- #8 Enterprise architects weren't sufficiently flexible
- #9 Enterprise architects perceived as impediment to success
- #11 EA perceived as not viable

Process Issues:
- #5 Development teams couldn't wait for enterprise architects

Source: Dr Dobb’s January 2010 State of the IT Union Survey
Agile Enterprise Architecture

Architecture Principles and Guidelines
Dueling Surveys

Enterprise Architects

“versus”

Agilists

Ambysoft February 2012
EA Mini Survey
Agile Mini Survey

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Enterprise Architects

70% of their firms have agile projects underway

34% said their agile teams work with them well

44% thought that their agile teams addressed architecture well

47% believe their agile teams view EA positively

Agilists

49% of their firms have an EA program

15% said their EA teams work with them well

18% thought that their EA teams work in an agile manner

33% believe their EA teams view agile positively

We must do better

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Agile Enterprise Architecture: Definitions

• Process-based definition:
  – The process of collaboratively defining, sharing, and nurturing common business and technical visions and guidance within an organization to maximize long-term value.

• Artifact-based definition:
  – Sufficient models, documents, examples, and guidance describing an organization’s existing and to-be states.
Create Slim Artifacts at First

- Prefer executable artifacts for IT professionals
  - Reference architectures which include working code
- Prefer simple visual diagrams for non-IT professionals
  - Don’t get bogged down in details
- Your artifacts should evolve over time
Take a Multi-View Approach

- Code Distribution
- Data Storage
- Data Transmission
- Deployment
- Function/Logic/Services
- Events
- Hardware
- Network
- System Interface
- User Interface
- Usage

- Accuracy
- Availability
- Concurrency
- Consumability
- Customization Points
- Internationalization
- Layering/Partitioning
- Maintenance
- Operations
- Quality
- Performance
- Regulations
- Reliability
- Reuse
- Security
- Serviceability
- Support
- Timeliness
- Usability
- Validation
Collaborate, Don’t Dictate or Police

Collaborate with non-IT Stakeholders

Collaborate with IT Stakeholders

Update Architecture Work Products

Initiation (days or weeks)

Envision Initial Architecture

Ongoing (years)

Architectural Vision

Feedback

Architecture Artifacts
Work Closely With Stakeholders

- Few stakeholders are good at telling you what they want, and even so their requirements evolve over time anyway
  - An evolutionary (iterative and incremental) approach is critical
- The goal is to gain and then act on pertinent feedback in a timely manner
  - Short feedback cycles are critical

<table>
<thead>
<tr>
<th>Potential Non-IT Stakeholders</th>
<th>Potential IT Stakeholders</th>
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</thead>
<tbody>
<tr>
<td>End users</td>
<td>Delivery teams</td>
</tr>
<tr>
<td>End user managers</td>
<td>Maintenance teams</td>
</tr>
<tr>
<td>Senior business managers</td>
<td>Operations</td>
</tr>
<tr>
<td>The “gold owner”</td>
<td>Support</td>
</tr>
<tr>
<td>External regulators</td>
<td>Internal IT regulators</td>
</tr>
<tr>
<td>Partner organizations</td>
<td>Governance body</td>
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Enterprise Architecture and Disciplined Agile Delivery (DAD)
Disciplined Agile Delivery (DAD)

Disciplined Agile Delivery (DAD) is a process decision framework

The key characteristics of DAD:

– People-first
– Goal-driven
– Hybrid agile
– Learning-oriented
– Full delivery lifecycle
– Solution focused
– Risk-value lifecycle
– Enterprise aware
Disciplined Agile Delivery (DAD) Lifecycle (Basic)
Early in the Lifecycle

This is an important portfolio management activity that occurs before a “project” begins.

Enterprise architects may lead initial modeling sessions or be key sources of information.

An enterprise architect may become the architecture owner on an agile team.

Enterprise architects are often important project stakeholders.
During Construction

Enterprise architects may coach team members or provide advice.

Enterprise architects may be involved with milestone reviews or iteration demos.
Late in the Lifecycle

Enterprise architects may be involved with milestone reviews.
Governance is Built Into DAD

- Governance strategies built into DAD:
  - Risk-value lifecycle
  - Light-weight milestone reviews
  - “Standard” agile opportunities for increased visibility and to steer the team
  - Enterprise awareness
  - Robust stakeholder definition
  - Development intelligence
- These strategies make it easier for enterprise architects to collaborate with DAD teams
Parting Thoughts
Why Agile Enterprise Architecture?

• Development teams can
  – Get help with key architecture decisions
  – Easily leverage existing systems, data sources, ...
  – Get mentoring in architecture skills
  – Have sensible development guidelines to follow
  – Have a tooling infrastructure that supports those guidelines

• Organizations can
  – Spend their investment in IT wisely
  – Get solutions which meet their actual needs
  – Achieve true business agility

• But only if
  – Enterprise architects work in a collaborative and light-weight manner
  – Agile teams are enterprise aware
1. Stop by the IBM booth (#204) in the exhibit hall
2. Ask how to get 10 free licenses of IBM Rational Team Concert.
3. Receive your complimentary copy of Agile for Dummies
Thank You!

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