University of Waterloo EA Maturity Review

Background

The Enterprise Architecture function sits in the Project Management Office (PMO) in the Client Services group within Information Systems and Technology (IST), at the University of Waterloo. The EA focus is within the work and context of IST.

The EA interacts with all groups, teams, and SME at various levels within IST and other departments and business units across campus. EA is led by the Strategic Architect who works collaboratively with various stakeholders to develop and document enterprise architecture.

What is your name and title?

Maher Shinouda, Strategic Architect

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How is Enterprise Architecture defined at your institution, and what is the mission of the EA practice?

Our definition of EA is "Enterprise Architecture (EA) is the digital representation of the business and information technology landscape across the enterprise classified and organized in relation to one another."

The EA produces a set of architectural artifacts, such as diagrams, views, models, roadmaps, and sometimes stored and presented in a centralized EA repository.

The EA practice contribute to strategy and planning activities, provide insights, identify improvement opportunities, and support decision-making

Mission:

To develop a set of architectural assets to improve planning and decision-making, support programs and projects activities, and enhance agility.

Assessment of EA practice at Waterloo

We have used the Enterprise Architecture Maturity Model (EAMM) to explore EA practice levels of maturity at Waterloo. We have done some review of our current state EA practice in an effort to determine where we are on the maturity curve and how can we grow further. We have identified challenges that we have been encountering since we started, determined key success factors to help us move forward, and identified opportunities where we can get involved to mature our EA practice.

Assessment Using the EAMM:

- **Scope Definition:** How well defined is your scope? Do your stakeholders understand the scope you have identified for yourself?
- **Engagement:** Who would you need to engage with to carry out the scope you have identified for yourself? How well engaged are they currently?
- **Impact Assessment:** In the areas of scope you have identified for yourself, how could you measure your impact? How well are you able to measure it now?
- **Delivery:** How well defined and easily repeatable is EA practice's delivery of outcomes within the scope you have identified for yourself? How could you improve?
- **Management:** How are you managing the EA practice to direct resources toward the areas of scope you have defined for yourself? How could you improve?

	1. Initiating	2. Formed	3. Defined	4. Managed	5. Improving
A. Scope Definition					
B. Engagement					
C. Impact Assessment					
D. Delivery					
E. Management					

EA Maturity levels at Waterloo

Scope Definition:

EA is not yet fully scoped to form a practice and the scope of EA activities is limited. Currently the scope of EA practice has been focusing on Application, Technology, and Security architecture within the IST department, a central IT unit at the University of Waterloo, it is still at the formed level.

Current state of scope:

- IST management is aware of EA and its benefits, however, EA is applied opportunistically on selected projects where we know we can demonstrate value and be successful
- Architecture framework focus mainly on Application, Technology, and Security domains; Data/Information is in the Information and Integration Management (IIM) domain, with more collaboration needed; and Business Capabilities and architecture principles not currently an area of focus
- EA definition, mission, and goals have been defined, we are incorporating EA vision into a PMO roadmap

Engagement:

Engagement attributes describes how EA practice engages stakeholders based on its scope. Currently, EA engagement is being building in various areas within the IST and we are getting involved in few key projects, it is at the initiating level.

Current state of Engagement:

- The EA interacts with other groups, teams, and SME at various levels within IST and other departments and getting engaged in projects as opportunities arise (EA roles and responsibilities have been defined, and included in project charter)
- Key stakeholders, ready to explore and support EA capabilities, need to be identified and getting engaged in EA activities
- Building relationships with various stakeholders and seeking opportunities to get engaged in various activities and projects. (E.g. work related to Security, work related to finance, HRMS, WCMS, ERPs…).
- EA stakeholder management and analysis to identify EA stakeholders and their influence on EA and the impact that EA will have on each stakeholder group (work in progress…)

Impact:

The impact attributes describes how the EA practice measures its performance within its scope. Currently, EA has little or no impact yet and is at the initiating level.

Current state of Impact:

- Positive feedback from stakeholders related to EA work in projects
- EA work started to be presented to high level ERP committees, but still not across the institution. (Qualitative measures)

Quantitative measures

Matrix and counts to measure EA work:

- Number of inflight projects/initiatives with EA involvement
- Number of inflight projects/initiatives that require EA work but EA is not involved in
- Number of projects/initiatives exempt from EA work or doesn't require EA work
- Number of completed current state (as is) developed architecture entered in Erwin
- Number of future state (to-be) developed architecture
- Number of developed and published architecture principles
- Number of technical processes (or capabilities) mapped
- Number of areas, groups, stakeholders that are interested in EA work
- Number of Reference Architecture developed
- Number of architecture artifacts developed/created (where we are providing guidance, consulting to projects, but not necessarily project team member)
    - # Artifacts developed/adopted
    - # Artifacts used actively

Delivery:

The Delivery attributes describes the means by which the EA practice delivers value. Currently we are at the early stage of the formed level.

Current state of Delivery:

We have identified potential means for EA practice to deliver value such as:

- EA is opportunistically engaged in key projects and initiatives
  - EA have created Reference Architecture for key solutions, including the Identity and Access Management Reference Architecture
  - Current state architecture for ERP systems
  - Current and future state architecture for various applications
- Defined EA roles and responsibilities in projects and program
  - EA provided value to key projects such as Unit4, HRMS, WCMS through the provision of current state architecture, applications interface and integration, application and infrastructure architecture
- Principles: EA documented the integration principle (Ease Integration through API)
- Tools: we have identified erwin EA to be used for capturing and storing architecture data and produce variety of architecture views and models

Currently, EA delivery attribute is considered to be in the early stage of the formed level

Management:

Our EA practice is taking practical steps to manage itself and is considered to be at the early stages of the defined level.

Current state of Management:

- Our EA practice has a funded position, accountable for EA function
- Key stakeholders and SME across multiple teams have been identified *[Stakeholder analysis…]*
- We have adopted erwin EA tool to manage EA information and used as a central repository.
  - The tool is also used to track EA work from start to completion.
  - It allows EA members to communicate their work and share architecture information

EA Challenges:

These are some of the challenges that we have been encountering

- The practice is relatively new and demonstrating value takes some initial investment to show value. When people don't understand or recognize the value of EA, they don't know what to expect from EA work, that makes it challenging for us to get involved. Finding the right opportunity to get involved, being there at the right time will make a difference
- Sometimes we are seen as being decision makers, when in fact we provide information and processes for decision support

Potential opportunities for EA at Waterloo
- Working on key projects, e.g. ERPs such as SIS, HRMS, Finance and others
- Participating in strategic planning activities
- IST application inventory project: to capture information about systems/applications and their interrelationships
- IST group capabilities inventory
- IST knowledge base inventory
- IST Lean adoption: spreading Lean principles into IST's daily work activities
- Develop a Risk framework
- Review policies, standards and guidelines: Architecture principles and guidelines