Harvard University's EA Practice

EA Practice at a Glance	
Year formed	2015
Submitted by	Greg Charest - Enterprise Architect Raoul Servier - Enterprise Architect
EA team located in	CTO Office in Central IT
Roles on EA team	Manager, 2 EAs, 3 Architect Specialist
Narrative	The primary foci for the CIO and the EA team have been 1) Alignment, 2) Consolidation, and 3) Optimization. Alignment has been focused on promoting consistent principles, standards, and policies regarding IT capabilities and implementations. Consolidation has been focused on replacing redundant implementations of applications with one consolidated or a multi-tenant solution. Optimization has been focused on packaging IT capabilities as Services and organizing resources for self-service management and delivery.
Maturity	Scope Definition (Formed), Engagement (Formed), Impact Assessment (Initiating), Delivery (Initiating), Management (Initiating)

What is your name and title?

Greg Charest - Enterprise Architect
Raoul Sevier - Enterprise Architect

How did your architecture practice get started?

The current Enterprise Architecture group was formed three years ago under the CTO office as part of a deliberate strategy by the University CIO. Key drivers included: effectiveness (modern IT services), efficiency (cross-organizational deployments and shared services), cost (vendor and operations management), and governance (standards and policies).

What is the scope of your practice – e.g., enterprise, business, technical, solution, data architecture?

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How big is your practice and where is it positioned in the organization?

The EA team is located in the central IT group and is part of the CTO Office. It is composed of one manager, two generalist Enterprise Architects, and three specialist Architects focused on Cloud, DevOps, and User Experience.

What is your approach to working with related teams – e.g., federated architecture practice?

The EA team is organized around four centers: 1) Projects, 2) Publishing, 3) Consulting, and 4) Architecture Reviews:

1. The EA team engages in projects which have significant IT components as a primary means of engagement and learning. Examples of projects include Cloud, Interoperation, Toolchains, and Operational Technologies. These projects are initiatives that are driven and managed by IT and other organizations.

2. The emerging Publishing activity provides the means of gathering information regarding principles, practices, patterns, standards, and policies. The learnings are then packaged and promoted through a library of materials. The hope is that EA involvement and subsequent communication will lead to a multiplier effect – because we were involved with the project not only did we help the project but our communication has helped Harvard perform related tasks more effectively.
3. The Consulting activities provide projects and teams with feedback on their work, guidance and governance where appropriate, exploration of alternative approaches, and connections to other projects and resources when needed.
4. The EA team conducts phased architecture reviews for high-profile and capital projects, as well as reviews of other projects for overall governance purposes.

How would you describe the maturity of your architecture practice?

- See the Higher Education Enterprise Architecture Maturity Model for more information.

Attribute	Level
Scope Definition	2-Formed
Engagement	2-Formed
Impact Assessment	1-Initiating
Delivery	1-Initiating
Management	1-Initiating

What are major trends you see in your practice and your enterprise?

Cloud. SaaS. Consolidation to single or multi-tenant applications. Standardized data integration. Steadfast brand and UX expression.

How does your team manage its work internally and on projects?

Our team's work is heavily dependent on the availability and participation of other teams, making it challenging to plan definitively. We use an Agile planning process through which we identify work to be completed in quarterly time-boxes, taking care to minimize dependencies on teams that are not available and ready to work with us. In addition, we conduct consulting work on a demand-basis.

What are your major challenges?

Harvard is very decentralized so building relationships with School IT and business teams is essential and time-consuming. While there is some central governance, we need to be able to more clearly articulate an EA value proposition in order to build support for EA from the business side. Within the central IT organization, a rapidly changing IT landscape has included a migration to the Cloud, increased use of SaaS, the implementation of ERP and Learning Management systems, security changes, and the application of Agile and DevOps approaches. These have consumed much of our ability to manage and incorporate change.

What projects and initiatives have recently had the most impact?

This is a multi-year roadmap that focuses our project work:

Cloud

- Develop and communicate a multi-Cloud architecture strategy.
- Stage requirements for implementation of Cloud Architecture components.
- Develop templates and guidelines to promote automation and standard processes.

Interoperation

- Document API reference designs and standards with CAPP and other API solution architects.
- Consult on API Platform service design and implementation, support SLAs, and platform roadmap/timetables.
- Identify and publish resources required to support API consumers based on input from the Interoperability Focus Group.

Executive Education

- Develop a SalesForce tenancy strategy that supports Executive Education.
- Document identity requirements and ensure that IAM efforts to replace XID are aligned with Executive Education needs.

- Describe the architectural strategy necessary to support Canvas interoperability for Executive Education.

Automation

- Increase the use of Ansible for system administration and application deployment through increased communication and outreach.
- Document and distribute Ansible references designs and standards.
- Participate in an effort to select standard tools for Continuous Integration/Continuous Deployment (CI/CD). Publish and socialize the resulting toolchain.

Operational Technology

- Define a network strategy that describes the relationship between OT networks and Harvard's existing data network designs and policies.
- Document network patterns and standards that deliver secure, manageable and scalable OT networks.
- Identify and document single sign-on integration to device solutions, and for authentication and authorization between device vendor solutions.