
Enterprise Architecture

The *Guide* is definitive. Reality is frequently inaccurate.

Douglas Adams - The Restaurant at the End of the Universe

Webinar Topic

– Enterprise Architecture (EA) at UC

- Overview
- Domains
- Team
- Roadmap
- Objectives
- EA Services
- Value of EA

What Is Enterprise Architecture? – Part I

A methodology for developing and using architecture to guide the transformation of a business from a baseline state to a target state

Enterprise architecture is the organizing logic for business processes and IT infrastructure reflecting the integration and standardization requirements of the company's operating model

A comprehensive set of cohesive models that describe the structure and functions of an enterprise

... the documented results after examining the enterprise ...

Models describing the logical business functions or capabilities, business processes, human roles and actors, the physical organization structure, data flows and data stores, business applications and platform applications, hardware and communications infrastructure

What is Enterprise Architecture? – Part II

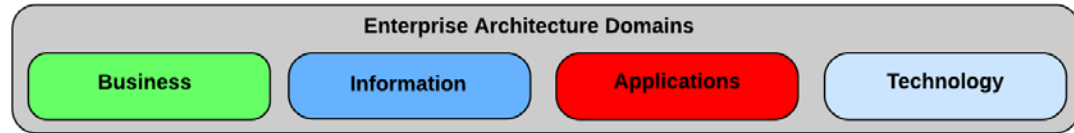


Enterprise Architecture at UC - Overview

- Enterprise architecture is a practice focused on the alignment of **people**, **process** and **technology** in support of the UC mission, vision and strategy.
 - Enterprise architecture describes significant structural components such as information, process, application and technology assets and how they are used to support optimized business execution.
- Enterprise architecture is unique to every organization, however there are some common elements.

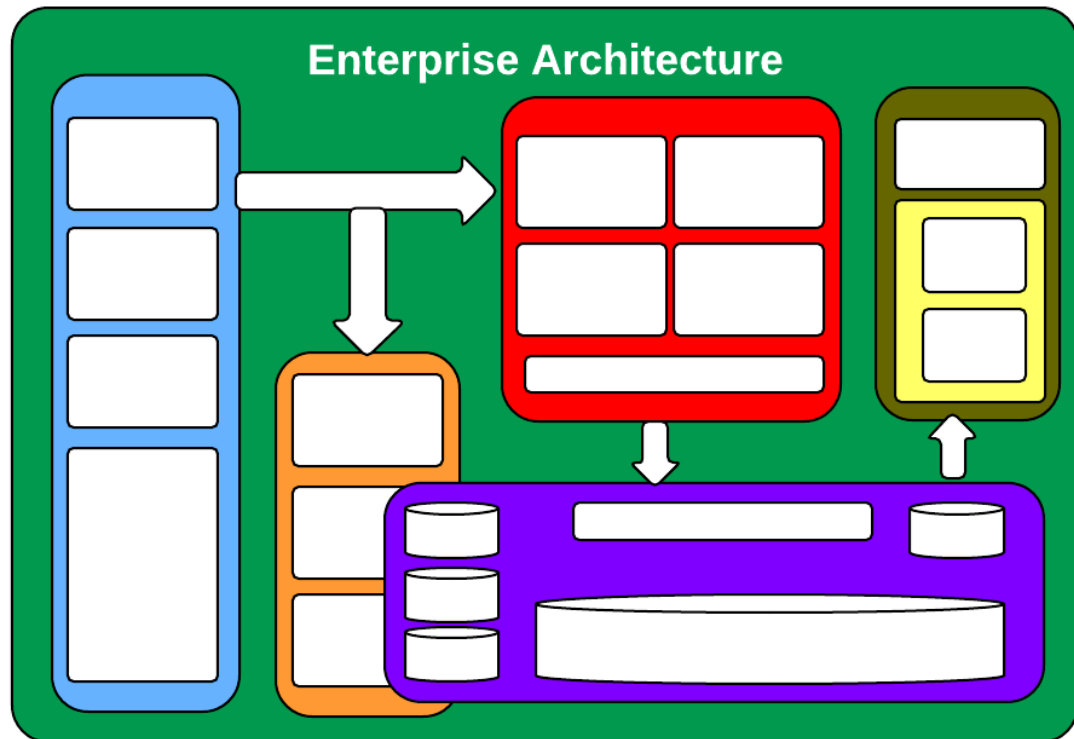
Enterprise Architecture Domains

- The four commonly accepted domains of enterprise architecture are:



- Each domain is described by multiple artifacts:

- models
- blueprints
- processes
- capabilities
- standards
- reference architectures
- etc.



- EA artifacts are used to define target solutions, capabilities, etc.

UC Enterprise Architecture Focus Areas

- Enterprise architecture is focusing on five architectural areas
 - SOA (Service Oriented Architecture/Approach)
 - Identity and Access Management
 - Applications
 - Security
 - Data



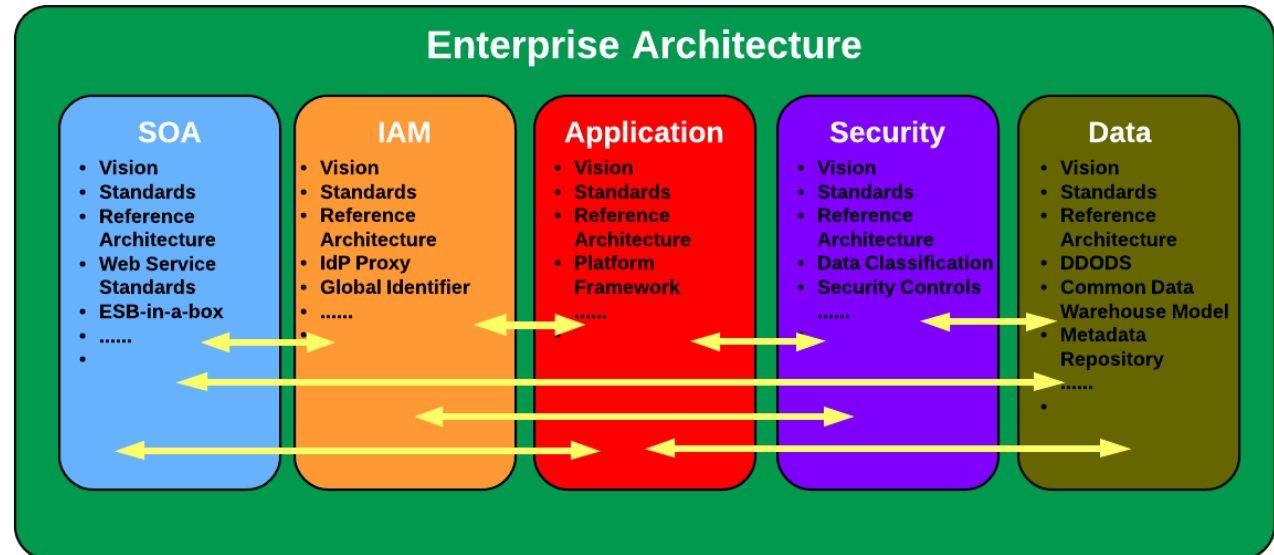
People



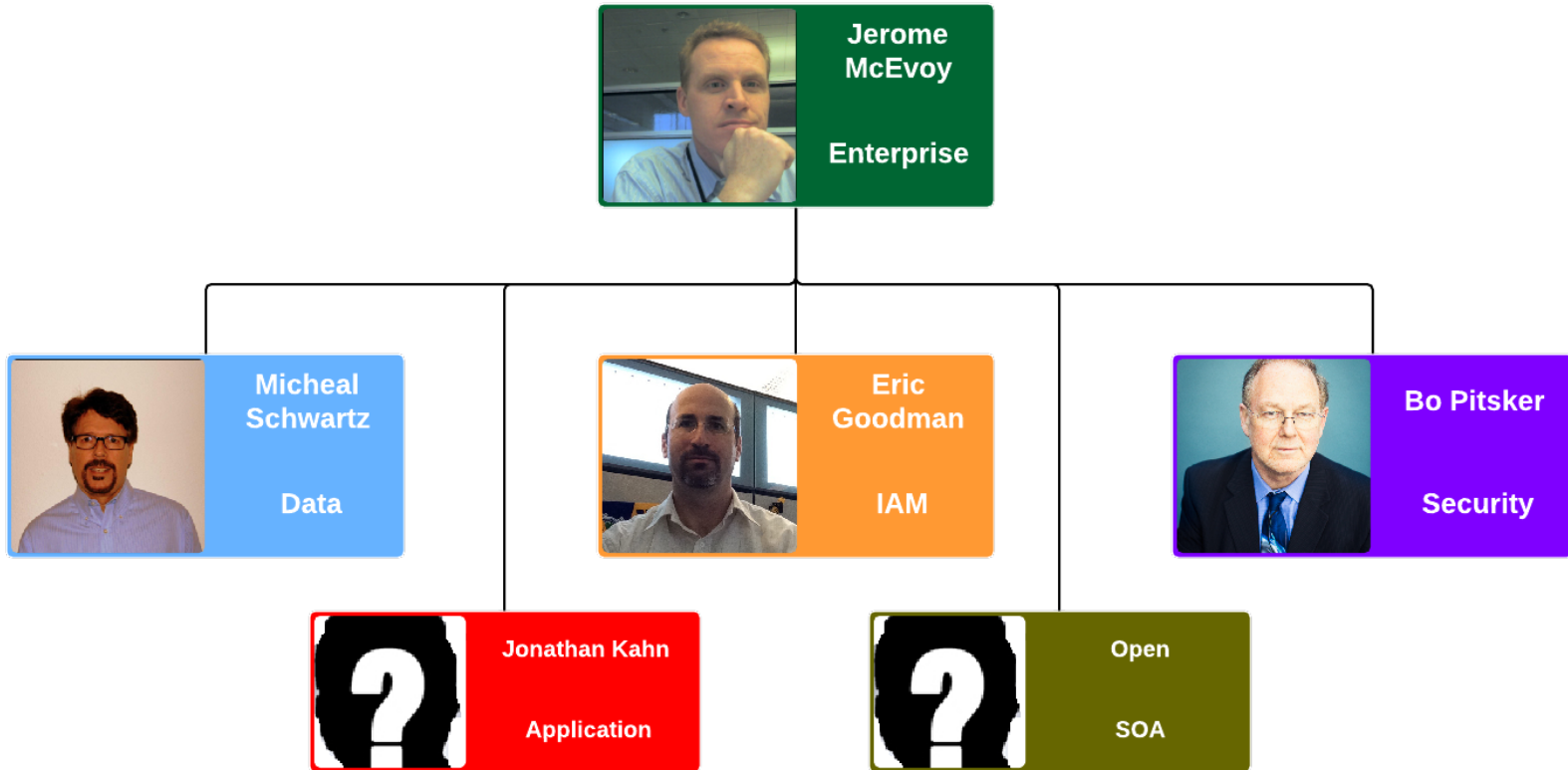
Process



Technology



Enterprise Architecture Team – June 2014



- Domain Architects work with cadre of systemwide business and technical staff on:
 - Identification and development of capabilities, best practices, standards, reference architectures, services, shared or common solutions, etc.

Enterprise Architecture Objectives

- Establish an enterprise architecture for UC that supports the needs of our federated organization
- Create the architecture artifacts, locally and systemwide, that describe the desired:
 - Business processes
 - Information assets
 - Technology components
 - Interoperability capabilities, protocols
 - Security posture
- Foster the enterprise architecture discipline at each location

Enterprise Architecture Roadmap

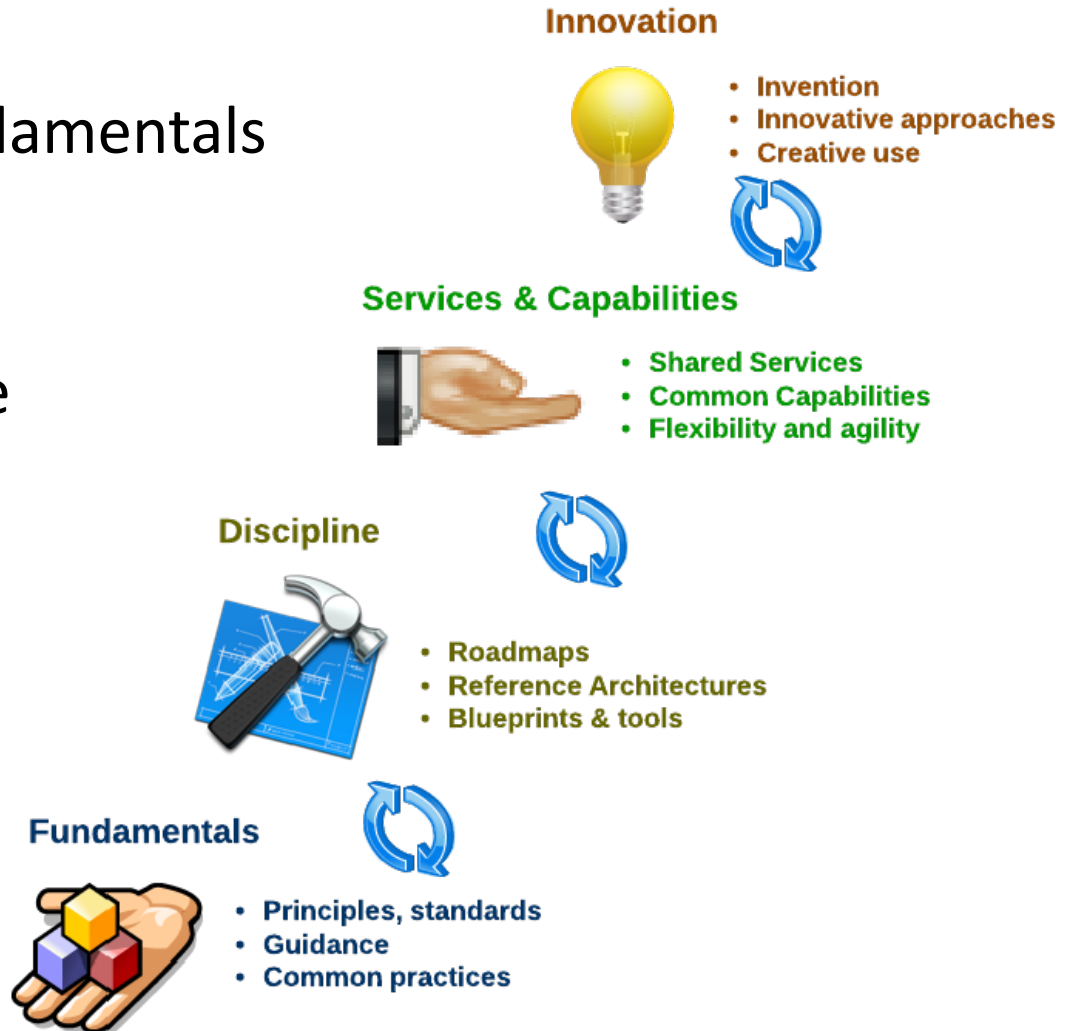
- Systemwide Enterprise Architecture is nascent

- We start with the fundamentals
 - Basic building blocks

- Establish the discipline
 - Locally, system wide

- Services, capabilities
 - Consistency, reuse

- Innovation



Enterprise Architecture *Modus Operandi*

- Enterprise Architecture places significant emphasis on reuse, interoperability and service orientation
- **Reuse** leverages existing data, technology and process assets as services.
 - Minimizing expense on redundant resources
 - Improving quality, consistency, time to delivery
 - Increasing security and management opportunities
 - Improved augmentation potential
- **Interoperability** facilitates reuse and access to information services by multiple consumers.
 - Reuse is possible when a shared service is discoverable, reliably available and accessible
 - A high degree of standardization is required for optimal reuse (e.g., standard protocols, data definitions and structures, etc.)
- **Service orientation** promotes delivery of services rather than tactical point systems/applications.

Enterprise Architecture Service Examples

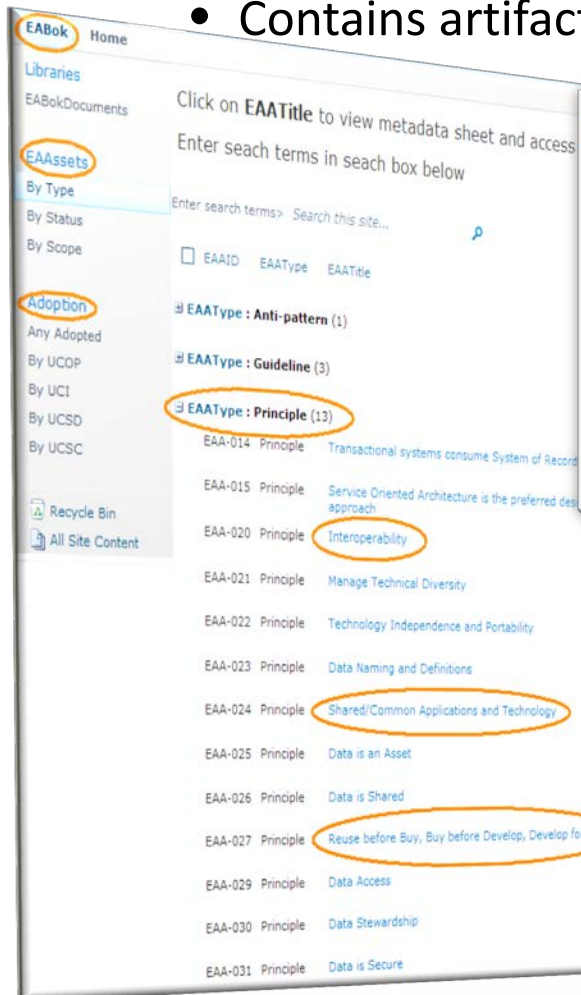
- Enterprise Architecture services are most often requested for systemwide needs:
 - Shared Administrative Systems
 - UCPATH
 - Shared Capabilities
 - Enterprise Metadata Repository
 - IdP Proxy Service
 - Common Capabilities
 - Managed File Transfer (MFT)
 - Enterprise Service Bus (ESB)
 - Interoperability
 - Integration patterns, standards and protocols
 - Service design
 - Service discoverability
 - Enterprise Data Models
 - HR & Payroll
 - Student
 - Party
 - Frameworks
 - Principles, standards
 - Technology & Tools

Recap: Why Enterprise Architecture?

- The UC business and technology landscape is vast, fragmented and has myriad opportunities for cohesion.
- Defining target state architectures and an enterprise roadmap enables the organization to leverage individual projects in a manner that supports long-term business strategies and efficiencies.
- Enterprise Architecture reduces
 - Redundancy, complexity and information silos
 - Business risks associated with IT investments
- Enterprise Architecture improves
 - Business and technology alignment
 - Consistency in a federated landscape
 - Interoperability and information sharing
 - Return on investment
 - Flexibility and agility

Enterprise Architecture Resources

- Enterprise Architecture SharePoint [site](#)
 - EA Body of Knowledge ([EABoK](#))
 - Contains artifacts such as principles, standards, etc.



EAID	EAType	EAATitle	EAADescription
EAA-006	Standard	Federated authentication protocols (Cross-campus Applications)	UCOP - Eric Goodm...
EAA-007	Standard	User Identification Attributes	UCOP - Eric Goodman
EAA-008	Standard	Transactional (Restricted) Web Service Standards	UCOP - Stephen Dean
EAA-009	Standard	Two-way SSL (Mutual Authentication)	UCOP - Stephen Dean
EAA-011	Standard	WS-Security 1.1	UCOP - Stephen Dean
EAA-013	Standard	SSH File Transfer Protocol Key	UCOP - Stan Lee
EAA-018	Standard	"Last Mile" security for Web Services	
EAA-032	Standard	Account Owner Uniqueness	
EAA-033	Standard	Password Complexity and Online Guessing Resistance	
EAA-034	Standard	Credential Renewal/Password Reset	
EAA-035	Standard	Password Storage	

EAAssets - Transactional (Restricted) Web Service Standards...

View: Version History, Alert Me, Manage Permissions, Edit Item, Delete Item, Manage, Actions

EAID	EAType	EAATitle	EAADescription
EAA-008	Standard	Transactional (Restricted) Web Service Standards	Web Services utilized for UC business transactions involving PII or financial transactions require robust security and reliability. Web Services classified as Restricted by UC Security Officers or Data Stewards are subject to this standard also. The standards utilized follow: Communications Protocol: SOAP 1.1 Transport Protocol: HTTPS Interface Definition: WSDL 1.1, RPC Literal Data Exchange Formats: XML 1.0 Transport Security (mandatory): Transport Level: 2-Way SSL Payload/content Security (mandatory): Message Level: WS-Security 1.1 (entire message)

<http://www.w3.org/TR/2000/NOTE-SOAP-20000508/>

Questions?