EA Proposal

# Executive Summary:

Enterprise architecture covers a lot of areas and requires a wide variety of skills. This liveProject is focused on using enterprise architecture to help a merger be successful. This will require only some enterprise architecture skills and knowledge, but it will require understanding a framework for all of EA and how the pieces of the framework fit together. This understanding and its implementation in the liveProject will highlight the issues needed to have a successful merger from the IT perspective. Using the framework, but a hybrid model with ideas from TOGAF thrown in as well. There is much overlap between the models, though the terminology is different.

# Scenario:

You work for an insurance carrier selling bowling alley insurance. You need to expand your market to improve your profitability. Your company decides to accomplish this by purchasing a complementary insurance carrier. After a long search, your firm finds a carrier that specializes in private aircraft insurance. After a time of negotiation, the two companies reach agreement on a deal. Your task is to plan the IT part of the merger.

# The BOST Framework.

Definition (Milestone): The BOST Framework provides the superstructure for enterprise models, their elements, and relationships. BOST is an acronym representing four views; Business, Operations, Systems and Technology. Enterprise requirements flow downward through the four framework views, starting with the external market opportunities and stakeholder interests. The capabilities flow upward in response to these requirements, starting from the arrival of new technologies. The key determinant of business success is how well an enterprise can align their capabilities with the constantly changing requirements in all four views.

## Steps:

1. Read about the BOST Framework
2. Read about Mapping TOGAF to BOST
3. Understand approach to the liveProject
   1. Define the business problem
   2. Define the Business layer – (pieces)
   3. Define the Operations layer – (pieces)
   4. Define the Systems layer – (pieces)
   5. Define the Technology layer – (pieces)
4. Answer questions

## List questions to be answered (Deliverable):

1. What are the layers of the BOST framework?
2. How do these layers tie together?
3. How do these layers tie to the TOGAF Framework?
4. How does each layer interact with parts of the company’s business ecosystem?

## List artifacts (Tools Used):

1. PDFs
2. Text Template

## Provide context for lesson:

* Understand the BOST Framework
* Explain the different layers
* Explain how the layers are connected together

## Resources:

BOST Framework

<https://www.informatica.com/content/dam/informatica-com/en/collateral/white-paper/Introduction-to-BOST-Framework-Reference-Models-whitepaper_2753.pdf> - p1-17

Mapping TOGAF to BOST – slides – p1-25

TOGAF Requires free account to download

<https://publications.opengroup.org/guides/togaf/togaf-series-guides/g18a>

TOGAF Business Models – p1-8

# Business Architecture

Definition (Milestone): Business Architecture is developed based on individual department goals and overall business objectives. Business architecture and strategic planning is the key to planning, coordinating and implementing an organization’s business objectives. It helps in the smooth functioning of different units in an organization, both inside and outside the enterprise itself.

The Business View contains four inter-related Reference Models:

1. Market Model describes the relevant industry sector and classifies the types of segments, solutions, and providers.

2. Product Model defines classes of products and possible sales and service channels.

3. Enterprise Relationship Model identifies the possible types of partnerships affecting enterprise structure, in-sourcing, and out-sourcing options.

4. Enterprise Resource Model identifies the types of workers, classes of facilities, equipment, and supplies, and any other assets required by the business.

Business capability mapping depicts what a business does to reach its strategic objectives (its capabilities), rather than how it does it (its business processes). Business capabilities are the connection between the business strategy and business execution.

## Steps:

1. Create a current capability map
2. Create a future state capability map
3. Define the gaps and overlaps

## List question to be answered (Deliverable):

1. What are you trying to accomplish?
   1. As a business?
   2. As IT
2. What does the company currently do?
3. With whom should the company do it?
4. What could the companydo?

## List artifacts (Tools Used):

1. Capability map
2. PDFs
3. Diagram Template

## Provide context for lesson:

* Business Goals:
  + Greater profitability
  + Reduced cost
  + Increased revenue
  + Improved cash flow
* Business Capabilities

## Resources:

1. TOGAF – Business Models
2. Business Capabilities
3. Business Scenarios

# Operations Architecture

Definition (Milestone): The IT infrastructure of an enterprise will typically comprise many different systems and platforms, often in different geographic locations. Operations architecture ensures that these systems perform as expected by centrally unifying the control of operational procedures and automating the execution of operational tasks. It also reports the performance of the IT infrastructure. The implementation of an operations architecture consists of a dedicated set of tools and processes which are designed to provide centralization and automation.

The Operations View has three important Reference Models that describe the essential capabilities required to operate in accordance with the Business View. The Service Function Model identifies the functional requirements, the Enterprise Information Model defines the information resources, and the Create/Use Matrix pulls together the end-to-end flow of information across the enterprise.

## Steps:

1. Create a current process diagram for a key process
2. Create a future state process diagram for a key process
3. Define the gaps and overlaps

## List question to be answered (Deliverable):

1. How does the company perform its current work?
2. How could the company do it?
3. What else could the business do?
4. How will you accomplish this?

## List artifacts (Tools Used):

1. BPMN Process diagram
2. PDFs
3. Diagram Template

## Provide context for lesson:

* Opportunities for process improvement
* Reduce cost
* Improved cash flow

## Resources:

https://www.omg.org/bpmn/

https://www.omg.org/cgi-bin/doc?dtc/10-06-02.pdf

https://www.process.st/bpmn-tutorial/

# Systems Architecture

Definition (Milestone): A system architecture is the conceptual model that defines the structure, behavior, and more views of a system. An architecture description is a formal description and representation of a system, organized in a way that supports reasoning about the structures and behaviors of the system.

The Systems View contains three important Reference Models used to describe the capabilities for automating the information processing, management, and exchange in support of the Operations Capabilities described in the Operations Reference Models.

The three models are the Systems Families, the Spider Diagrams that show information exchange between Families, and the Reference Systems that define the applications within Systems Families.

When it comes to diagrams, different people use the same terms to describe different diagrams. What do we mean by a system diagram? It looks like a Spider (Context) diagram, but with a single central system. It should show all systems needed to support a process. Other than that, the notation matches that of the Spider diagram.

## Steps:

1. Create the ‘as-is’ system diagram for consolidated systems for both companies
2. Create the ‘to-be’ system diagram for the future state
3. Define the gaps and overlaps

## List question to be answered (Deliverable):

1. What systems do the companies have in common?
2. What should you consolidate/eliminate?
3. How?
4. What
5. What are your priorities in accomplishing this?

## List artifacts (Tools Used):

1. System Diagram
2. PDFs
3. Diagram Template

## Provide context for lesson:

* System consolidation for improved processes
* Reduced cost
* Improved cash flow

## Resources:

BOST Framework

<https://www.informatica.com/content/dam/informatica-com/en/collateral/white-paper/Introduction-to-BOST-Framework-Reference-Models-whitepaper_2753.pdf> - p10-11

# Technology Architecture

Definition (Milestone): Technology architecture associates application components from application architecture with technology components representing software and hardware components. Its components are generally acquired in the marketplace and can be assembled and configured to constitute the enterprise’s technological infrastructure. Technology architecture provides a more concrete view of the way in which application components will be realized and deployed. It enables the migration problems that can arise between the different steps of the IS evolution path to be studied earlier. It provides a more precise means of evaluating responses to constraints (nonfunctional requirements) concerning the IS, notably by estimating hardware and network sizing needs or by setting up server or storage redundancy.

The Technology Viewcontains two Reference Models. The Technology Services Reference Model is used to identify and classify the complete set of technology capabilities within the IT infrastructure, represented as services. The Technology Devices Reference Model is used to define the various types of physical and logical platforms that house these Technology Services.

## Steps:

1. Create the ‘as-is’ technology infrastructure diagram for consolidated systems for both companies
2. Create the ‘to-be’ technology infrastructure diagram for the future state
3. Define the gaps and overlaps

### List question to be answered (Deliverable):

1. What are the barriers you need to overcome?
2. What are the core underlying servers needed to support the systems?
   1. Are they virtual or physical?
3. What are the core network devices the process needs to pass through?

## List artifacts (Tools Used):

1. Technology Infrastructure Diagram
2. PDFs
3. Diagram Template

## Provide context for lesson:

* Technology needed to support consolidated systems
* Architecture needed

## Resources:

<https://www.lucidchart.com/pages/network-diagram>

<https://sparxsystems.com/enterprise_architect_user_guide/14.0/model_domains/deploymentdiagram.html>