2013 Business Architecture Innovation Summit
Conceptual Solution Design and Visualization

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Conceptual Solution Design and Visualization

Agenda

Discussion Points

1. Background and context.
2. Alignment with BIZBOK®
4. Examples.
5. Value realization.
6. Closing remarks.
7. Q & A.

Goals / Outputs

1. Introduce the Conceptual Solution Design and Visualization process.
2. Encourage the use of the Conceptual Solution Design and Visualization to abstracts business architectural options, questions, and solutions in terms that all stakeholders can easily understand, facilitating open discussions at an early stage.
Conceptual Solution Design and Visualization

Background

- Currently, most progressive organizations have a significant number of multi-year, high complexity strategic initiatives.

- Delivery of these initiatives is instrumental to supporting future growth opportunities, and remaining competitive.

- Having a clearly defined, unified vision of each strategic initiative's main goals and objectives is critical to delivering strategic solutions and capabilities on time, within budget and with high quality.

- As more consumer-driven strategic capabilities are implemented, with stakeholders inside and outside the organization, the need for providing timely visualization of comprehensive conceptual solutions becomes even more important.
**Conceptual Solution Design and Visualization**

**Overview**

- Conceptual Solution Design and Visualization artifacts are based on BIZBOK®’s Value Mapping and Value Stream concepts.

- The creation of Conceptual Solution Design and Visualization models would provide a unified vision of strategic initiatives’ main goals and objectives.

- The Conceptual Solution Design and Visualization artifact would facilitate an abstract or high-level design that describes the services a given strategic initiative intends to provide.

- The main goal of a conceptual design is to describe the overall picture of the solution in terms that all stakeholders can easily understand.
Conceptual Solution Design and Visualization
When should Business Architecture be engaged and why?

As early as possible, because Business Architecture…

- Provides a business-centric, strategic view the enterprise.
- Is cognizant of the capabilities that support business functions.
- Facilitates understanding of the relationships among business functions being executed to create stakeholder value.
- Brings focus to improving enterprise agility, while at the same time reducing costs.
- Is a key leverage point to increase market share (in increasingly competitive marketplaces), and to reduce unnecessary waste, especially waste arising from the misalignment of Business, Process and Technology.
Conceptual Solution Design and Visualization

Business Architecture Value

Investment and proper execution of business architecture will pay significant dividends

Business Architecture:

• Promotion of re-usable solutions such as enterprise services
• Identification and elimination of redundant efforts for the same capability
• Better understand impact analysis when introducing new capabilities
• Maintain business architecture documentation which will grow over time
• Provide project vision and direction sooner in the lifecycle

Value Realized:

• Costs will go down
• Time to Market will be reduced
• Redundancy will be eliminated
• Complex answers to difficult questions will be made available
• Business Goals will be achieved
There is no Conceptual Solution Design artifact within the current HighRUP model. However, it appears to be in alignment with the Business Architectural Analysis and Construct Business Architectural Proof-of-Concept phases. A likely input could be HighRUP’s Business Vision artifact.
Conceptual Solution Design and Visualization

Alignment with BIZBOK®

- Value Streams depict “how” a business achieves value for an internal or external stakeholder.
- Value streams are the main vehicle for organizing a business’ thinking about how capabilities may be arranged, improved, or added to deliver stakeholder value.
Conceptual Solution Design and Visualization
Alignment with BIZBOK®

• Value streams, along with other aspects of the business, have strong relationships to business capabilities.
• It is the power of these relationships that provide the visibility [visualization] required to assess the root cause of an issue and determine what it will take to find and deploy a solution.
Conceptual Solution Design and Visualization

Process Overview

- Conceptual Solution Design is a **progressively elaborated, iterative process**.
- The main challenge is that each system presents unique challenges; as a result, no two models are the same.
- A Business Architect’s responsibility is to describe the strategic solution with the appropriate level of detail for a diverse audience, while incorporating the most relevant business, process and technology elements.

![Conceptual Solution Design Process Diagram](image-url)

**Conceptual Solution Design Process**

- **Describe Roles and Responsibilities**
  - Identify Project Manager
  - Identify Business Architect
  - Identify Business SMEs
  - Identify Technical SME / Technical Lead (optional)
  - Build RACI Matrix
  - Identify Independent Verification and Validation Team

- **Define Architecture Model**
  - Describe Solution Overview
  - Identify Solution Objectives
  - Describe Strategic Alignment
  - Identify Critical Success Factors
  - Identify Benefits
  - Identify Risks
  - Describe Alternative Solutions

- **Identify Architecture Key Areas**
  - Identify Stakeholders
  - Identify Stakeholder Interfaces
  - Identify Business Systems, Processes and Capabilities
  - Identify System Interfaces
  - Identify Mechanisms
  - Identify Information/Process Flows

- **Elaborate Conceptual Visualization**
Conceptual Solution Design and Visualization
Activities and Tasks

Describe Roles and Responsibilities
This effort describes the roles and responsibilities of those involved in the development of the conceptual solution. In some cases, one individual may perform multiple roles in the process.

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<tr>
<th>Procedure</th>
<th>Description</th>
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| Procedure 1 | **Identify Project Manager**  
The Business Architect works closely with the project manager to identify stakeholders for the conceptual solution design work. The Project Manager is responsible for providing the resources required to complete the conceptual design model. |
| Procedure 2 | **Identify Business Architect**  
Business Architect responsible for developing the Conceptual Solution Design content. |
| Procedure 3 | **Identify Business Subject Matter Experts (SMEs)**  
Provide information regarding the Business Services, Functions, and Processes required to the Business Architect and review the information contained within the Conceptual Solution Design for accuracy and a common understanding of the Business System and the interfaces, information, and flows of the system. |
| Procedure 4 | **Identify Technical SME / Technical Lead (optional)**  
Provide technical information regarding the technology infrastructure and standards, review the information contained within the Conceptual Solution Design for accuracy and a common understanding of the Technology Infrastructure. Another consideration is the review of the ability to implement the solution identifying risks and reporting them to the project team. |
| Procedure 5 | **Build RACI Matrix**  
Construct Responsible, Accountable, Consulted, and Informed (RACI) Matrix  
Identify stakeholders for each conceptual design activity, what their role will be and what they are responsible for doing. Creating a responsibility matrix, such as a RACI, may be created to track each role and responsibility. |
| Procedure 6 | **Identify Independent Verification and Validation Team**  
The Verification and Validation team will review the information for completeness, accuracy, and the document has been vetted with the project team. |
## Conceptual Solution Design and Visualization

### Activities and Tasks

#### Define Architecture Model
Typically the process involves reviewing existing system documentation (if available), as well as interviewing SMEs, technical and security SME teams in JAD/RAD Sessions, and PM teams in order to represent the current or future state of the business system solution.

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| Procedure 1 | **Describe Solution Overview**  
Describe, at a very high level, the business problem and the solution that will be provided.                       |
| Procedure 2 | **Identify Solution Objectives**  
Summarize the high-level objectives that will be achieved by the solution.                                                       |
| Procedure 3 | **Describe Strategic Alignment**  
Describe the proposed solution with the published project, sponsor, or STI alignment.                                                   |
| Procedure 4 | **Identify Critical Success Factors**  
Describe the critical services being provided and identify the requirements/deliverables/thresholds that cannot be compromised or excluded. List the critical success factors based on a stakeholder centric view, meaning it should incorporate the stakeholder’s minimum expectations. |
| Procedure 5 | **Identify Benefits**  
List the main benefits to the stakeholders provided by the solution.                                                        |
| Procedure 6 | **Identify Risk**  
List the main risk associated with the conceptual solution. Whenever possible, include high-level strategies for risk management (deferral, avoidance, acceptance, etc.). |
| Procedure 7 | **Describe Alternative Solutions**  
This section identifies one or more alternative solutions, as well as a “do nothing” alternative to the solution demonstrating the cost of continuing using the existing system, without enhancements or changes. The narrative should describe the solution, the analysis of the advantages vs. disadvantages, and why the alternative is not the primary choice (or a fall back solution). |
Conceptual Solution Design and Visualization
Activities and Tasks

Identify Architecture Key Areas
The conceptual design should include detailed information about the key areas impacted by the strategic solution. The detailed information must include important components and entities and sufficient information to assist stakeholders in making the key decisions (e.g., risk mitigation, significance to the project).

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<tr>
<td>Procedure 1</td>
<td><strong>Identify Stakeholders</strong>&lt;br&gt;This section establishes the key stakeholders of the strategic solution, as well as setting context for their involvement. The stakeholders are not always people, but may also be business entities. The stakeholders are typically internal consumers of the services, but may also represent external consumers.</td>
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<td>Procedure 2</td>
<td><strong>Identify Stakeholder Interfaces</strong>&lt;br&gt;The interfaces area intends to show the users of the services being provided by the strategic solution and how the services are accessed.</td>
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<tr>
<td>Procedure 3</td>
<td><strong>Identify Business Systems, Processes and Capabilities</strong>&lt;br&gt;This task describes the processes that will be provided by the strategic solution, as well as the capabilities that supports the structure for the business system. It may include mapping and relationship to other processes and capabilities.</td>
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<td>Procedure 4</td>
<td><strong>Identify System Interfaces</strong>&lt;br&gt;This task describes the external entities and the systems that are required to provide inputs required by the business system to provide services.</td>
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<tr>
<td>Procedure 5</td>
<td><strong>Identify Mechanisms</strong>&lt;br&gt;Each system has a mechanism (technology piece) that performs specific functions. It is important to describe the existing technology supports the application and the resulting impact on the designed solution.</td>
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<tr>
<td>Procedure 6</td>
<td><strong>Identify Information/Process Flows</strong>&lt;br&gt;This task shows the progression of information passing through the business system and services. The information is represented by uni-directional, and bi-directional arrows which show how information and processes interact throughout the system.</td>
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Elaborate Conceptual Visualization

From the BIZBOK®, the Capability Model and the Value Stream are emerging as powerful tools that are essential for building robust strategic views of the business. These architectural views speak to decision-makers in their simplicity, and empower these senior business stakeholders to make objective planning decisions.

Characteristics

- While capabilities define "what" a business does, the value stream is an end-to-end collection of activities that deliver value to internal and external stakeholders.
- A value stream begins with a stakeholder triggering the first stage of the value stream and ends when a product or service, notification, a degree of satisfaction, or other communication is delivered back to that stakeholder.
- Value streams are decomposed into a series of stages that move from left to right with an arrow connecting each stage or sequence numbering.
- Value is accrued at each stage. Stages are expressed in verb/noun format such as "process payment."
- Value streams enable a wide range of capabilities and capabilities can be mapped to each stage of the value stream.
Conceptual Solution Design and Visualization
Example – Value Streams
Conceptual Solution Design and Visualization
Example – Stage Assessment
Conceptual Solution Design and Visualization
Example – RACI Chart
Conceptual Solution Design and Visualization

Value Realization

Conceptual Solution Design

Ability to Support Enrollment via the Public Exchange

Member Enrollment

Billing

Domain Legend

- Cash Line Box - represents a function carried on by another domain and is not represented as a separate domain on the Opening Map

1. Account Installation
2. Create products ID Group
3. Create Benefits
4. Process MBR Enrollment Transaction
5. Create / Maintain Coverage
6. Update Member / Enrollment
7. Create Member / Enrollment Party
8. Send Enrollment Data
9. Communicate Enrollment Data
10. Create / Update Card
11. Create / Update View
12. Communicate Billing Information
13. Generate Actual Billing Info
14. Maintain Customer Relationships
15. Create/Update Billing Transaction
16. Create/Update Activity Billing Transaction
17. Generate Bill
18. Communicate Billing Data
19. Pay Customer
20. MBR Billing
21. Support MBR
22. Monitor Customer Relationships
23. Operations & support staff
24. Generate Actual Billing Info

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Closing Remarks

- Provides an agile, unified vision of the business architecture questions found within complex and global strategic initiatives.
- During pre-inception, facilitates the progressive conceptual elaboration of the intended and expected services a given strategic initiative will provide.
- As visualization tools, a Conceptual Solution Design abstracts the business architectural solution(s) in terms that all stakeholders can easily understand, facilitating open discussions at an early stage.
- At Highmark, significant adoption and value realization at enterprise level encourages application of Business Architecture Guild and BIZBOK®’s guidance and best practices.
Conceptual Solution Design and Visualization
Questions and Answers

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