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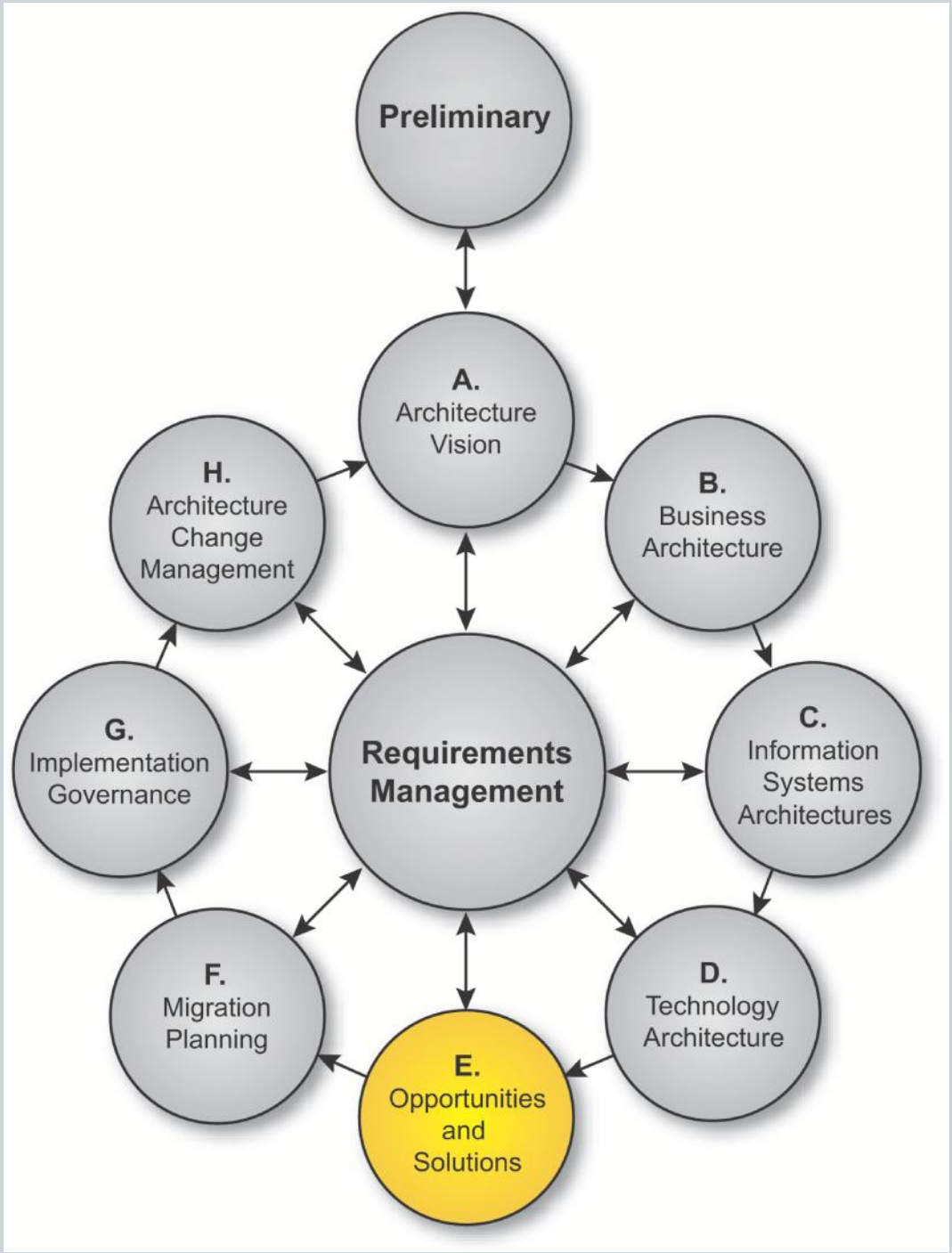
Version 9.1 Enterprise Edition

Module 24
Phase E
Opportunities and Solutions

THE Open GROUP

Published by The Open Group, 2011



Phase E: Opportunities and Solutions

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Module Objectives

The objectives of this module are to understand:

- The objectives of Phase E, Opportunities and Solutions
  - Which is the first phase directly concerned with implementation
- What it consists of
- What inputs are needed for it
- What the outputs are

Objectives

- Generate the initial complete version of the Architecture Roadmap, based upon the gap analysis and candidate Architecture Roadmap components from Phases B, C, and D
- Determine whether an incremental approach is required, and if so identify Transition Architectures that will deliver continuous business value

Stakeholders

- Phase E is a collaborative effort
  - Stakeholders required from both the business and IT sides
- It should include those that implement and those that operate the infrastructure
- It should also include those responsible for strategic planning
  - especially for creating the Transition Architectures, if required

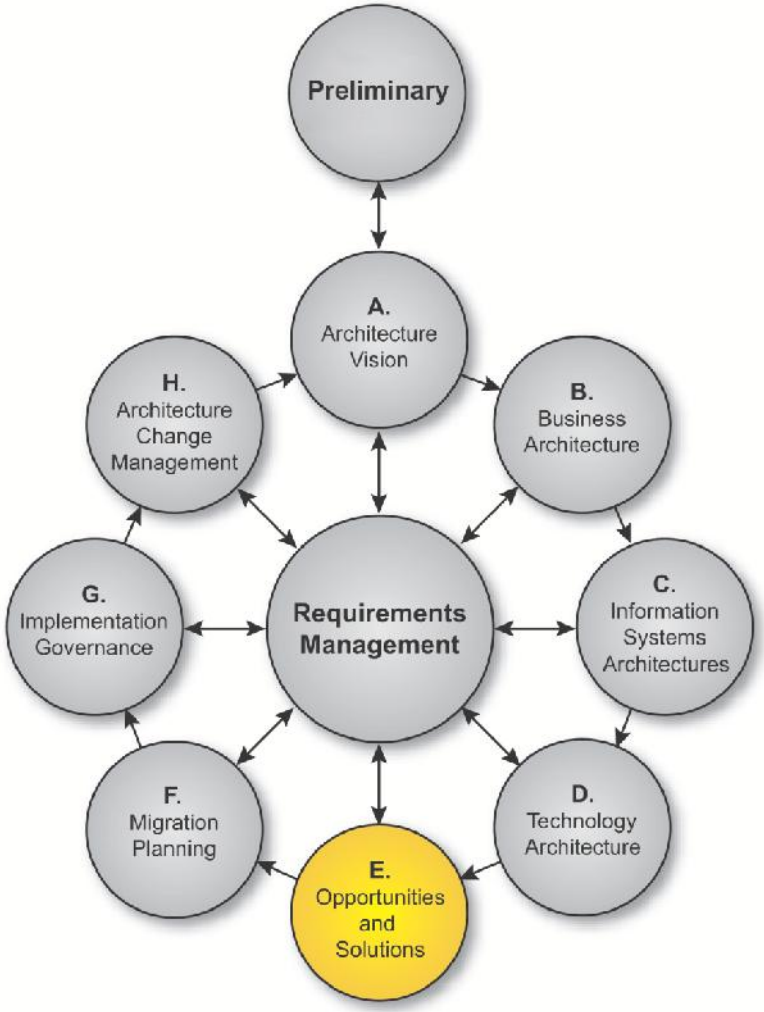
Approach

- This is the first phase concerning implementation
- It takes into account the complete set of gaps between the Target and Baseline Architectures in all architecture domains
- It logically groups changes into work packages
- It builds a best-fit roadmap based upon:
  - Stakeholder requirements
  - The enterprise's business transformation readiness
  - Identified opportunities and solutions
  - Identified implementation constraints.

Approach

- The following four concepts are key to transitioning from developing to delivering a Target Architecture:
- Architecture Roadmap
- Work Packages
- Transition Architectures
- Implementation and Migration Plan

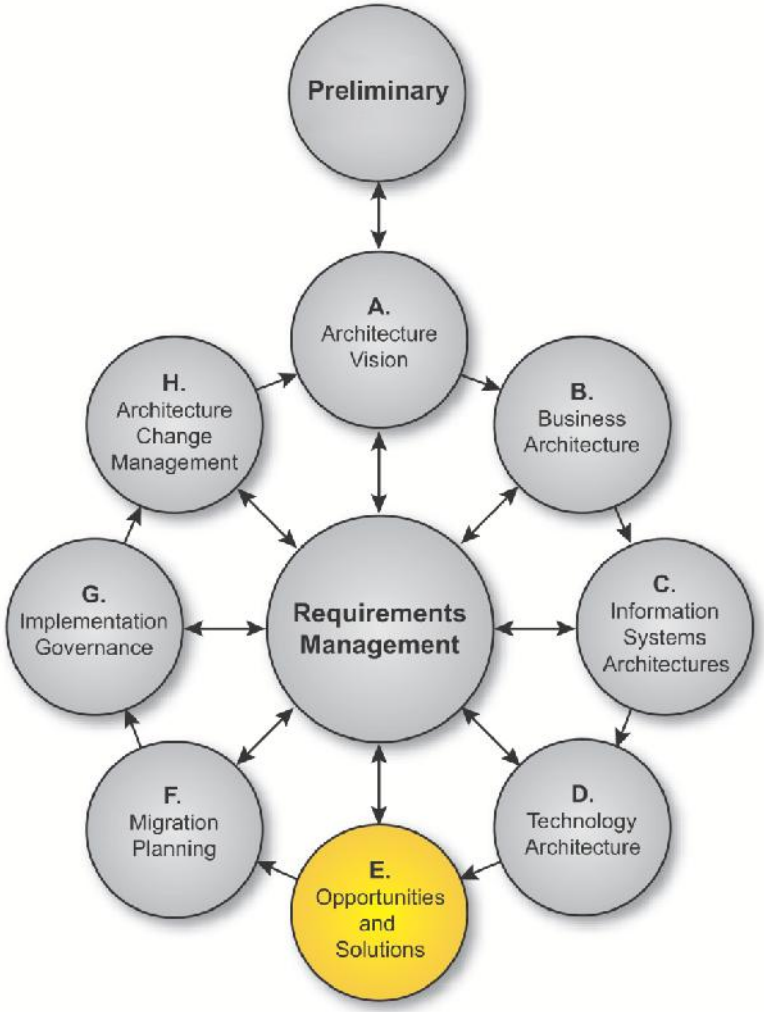
Phase E: Inputs



- Product Information
- Request for Architecture Work
- Capability Assessment
- Communications Plan
- Planning Methodologies
- Governance models and frameworks
- Tailored Architecture Framework

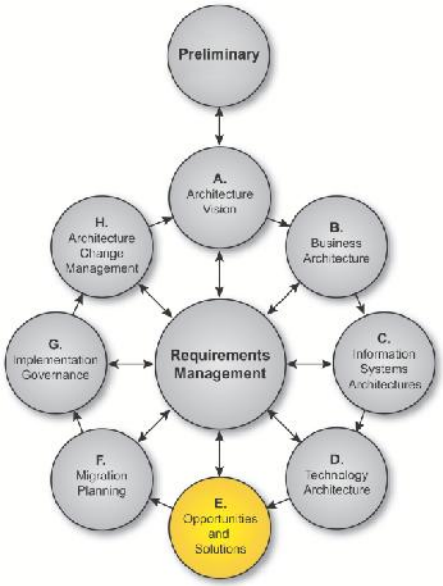
Continued

Phase E: Inputs



- Statement of Architecture Work
- Architecture Vision
- Architecture Repository
- Draft Architecture Definition Document
- Draft Architecture Requirements Specification
- Change Requests for existing programs and projects
- Candidate Architecture Roadmap components from Phases B,C, and D

Steps



11. Create Architecture Roadmap & Implementation and Migration Plan
10. Identify Transition Architectures
9. Identify and group major work packages
8. Formulate Implementation & Migration Strategy
7. Confirm readiness and risk for business transformation
6. Refine and validate dependencies
5. Consolidate and reconcile interoperability requirements
4. Review consolidated requirements across related business functions
3. Review and consolidate gap analysis results from Phases B to D
2. Determine business constraints for implementation
1. Determine corporate change attributes

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Step 1: Determine Corporate Change Attributes

- Create an Implementation Factor Assessment and Deduction Matrix
- Assess Transition Capabilities of Corporate and Partner Organizations
- Assess Transition Capabilities of the Enterprise and IT Organization

Step 2: Determine Business Constraints for Implementation

- Review Corporate Strategic Plan
- Review Corporate Line-of-Business Strategic Plans
- Review the Enterprise Architecture Maturity Assessment

Step 3: Review and Consolidate Gap Analysis Results from Phases B to D

- Create a Consolidated Gaps, Solutions, and Dependencies Matrix
- Review the Phase B, C, and D Gap Analysis Results
- Rationalize the Consolidated Gaps, Solutions, and Dependencies Matrix

Step 4: Review Consolidated Requirements Across Related Business Functions

- Assess the requirements, gaps, solutions and factors to identify a minimal set of requirements for work packages
- This functional perspective leads to the satisfaction of multiple requirements through the provision of shared solutions and services

Step 5: Consolidate and Reconcile Interoperability Requirements

- Consolidate Interoperability Requirements identified in previous phases
- Identify any constraints on Interoperability required by the potential set of solutions

Step 6: Refine and Validate Dependencies

- Refine the initial dependencies ensuring any constraints on the Implementation and Migration Plans are identified
- Key dependencies include:
  - Existing implementations of Business Services
  - Existing implementations of Information Systems Services
- Dependencies should be used to determine the sequence of implementation and coordination required
- They can also be used to identify logical increments of deliverables and when they can be delivered
- Once complete document as part of the Architecture Roadmap and any necessary Transition Architectures

Step 7: Confirm Readiness and Risk for Business Transformation

- Review the Business Transformation Readiness Assessment previously conducted in Phase A
- Determine the impact on the Architecture Roadmap and the Implementation and Migration Strategy
- It is important to identify, classify, and mitigate risks associated with the transformation effort
- Risks should be documented in the Consolidated Gaps, Solutions, and Dependencies matrix

Step 8: Formulate Implementation and Migration Strategy

- Determine an overall strategic approach to implementing the solutions and/or exploiting opportunities
  - Greenfield
  - Revolutionary
  - Evolutionary
- Determine an Implementation Approach
  - Quick win (snapshots)
  - Achievable targets
  - Value chain method (e.g. NASCIO methodology)

These approaches and identified dependencies should become the basis for creation of work packages

Step 9: Identify and Group Major Work Packages

- Use the Consolidated Gaps, Solutions, and Dependencies matrix together with the Implementation Factor Assessment and Deduction matrix, to logically group activities into work packages
- Fill in the "Solution" column in the Consolidated Gaps, Solutions, and Dependencies matrix to recommend the proposed solution
- Indicate for every gap/activity whether the solution should be a new development, or based on an existing product, and/or a solution that can be purchased
- Classify every current system
  - Mainstream Systems
  - Contain Systems
  - Replace Systems
- Analyze the Work Packages with Respect to Business Transformation and group into portfolios and projects

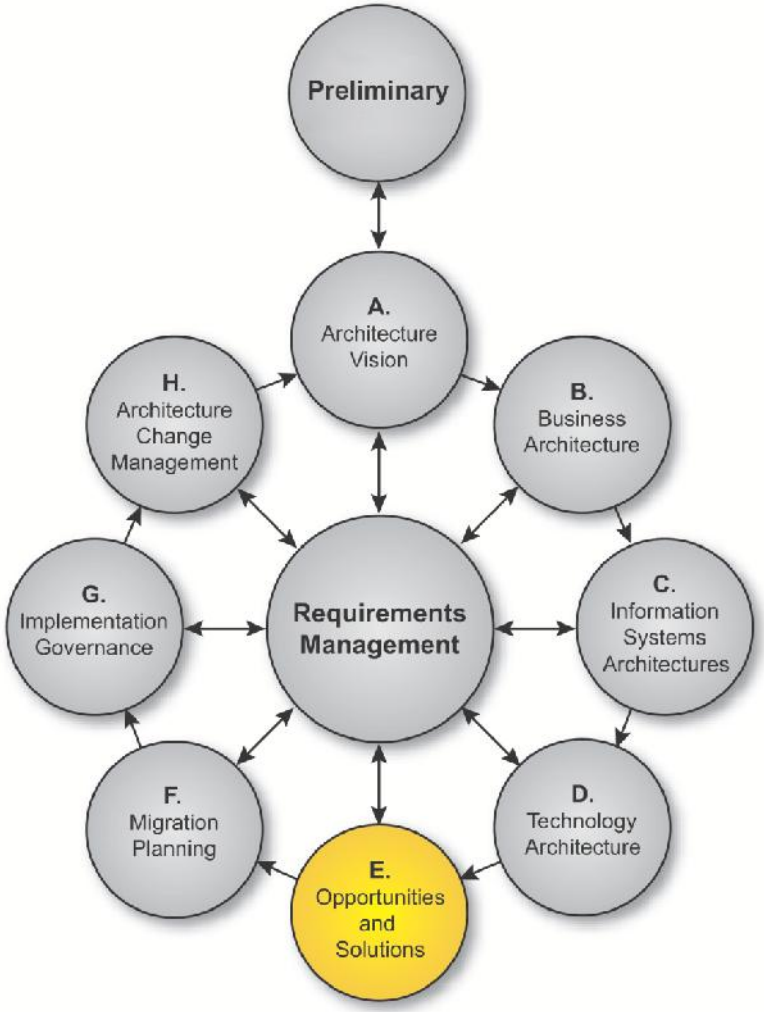
Step 10: Identify Transition Architectures

- Applicable when the scope of change to implement the Target Architecture requires an incremental approach
- Identifies one or more clear targets along the roadmap to realizing the Target Architecture
- Development must be based upon the preferred implementation approach, the Consolidated Gaps, Solutions, and Dependencies matrix, the listing of projects and portfolios, as well as the enterprise's capacity for creating and absorbing change

Step 11:Create the Architecture Roadmap & Implementation and Migration Plan

- Consolidate the work packages and Transition Architectures into the Architecture Roadmap, Version 0.1
  - The Architecture Roadmap must demonstrate how the selection and timeline of Transition Architectures and work packages realizes the Target Architecture
- The Implementation and Migration Plan, Version 0.1 must be aligned to the Architecture Roadmap and sufficient to identify the necessary projects and resource requirements to realize the roadmap
- Update the Architecture Vision, Architecture Definition Document, and Architecture Requirements Specification, if necessary

Phase E Outputs



- Statement of Architecture Work
- Architecture Vision
- Draft Architecture Definition Document, including:
  - Transition Architectures, if any
- Draft Architecture Requirements Specification, including
  - Consolidated Gaps, Solutions and Dependencies Assessment

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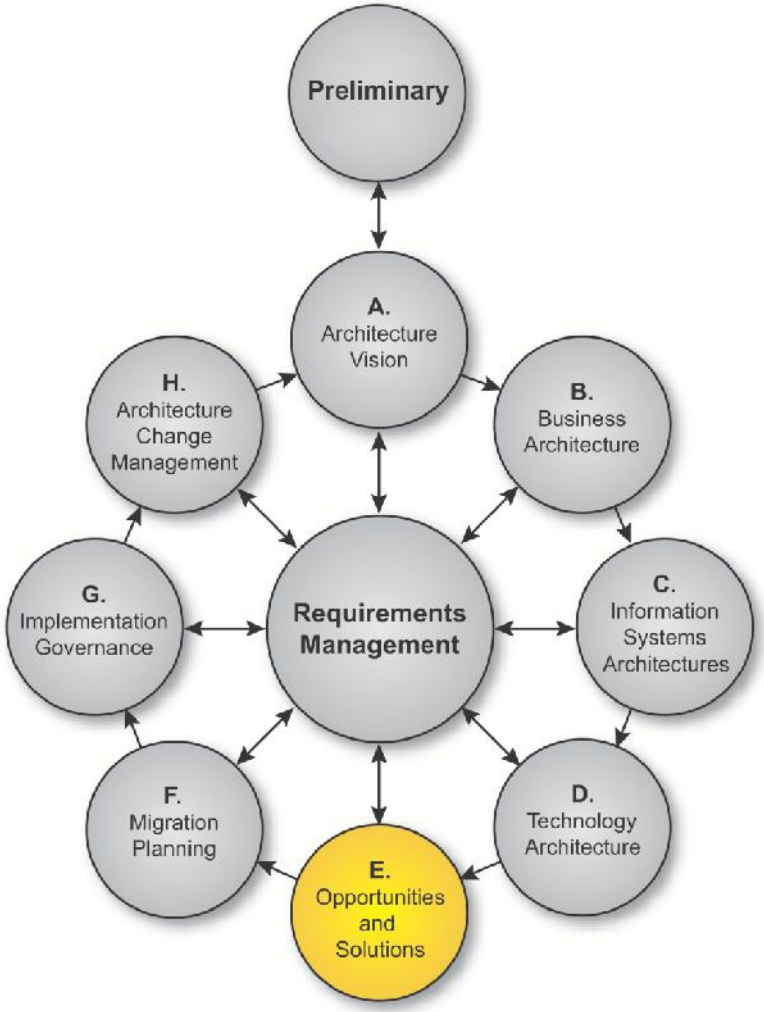
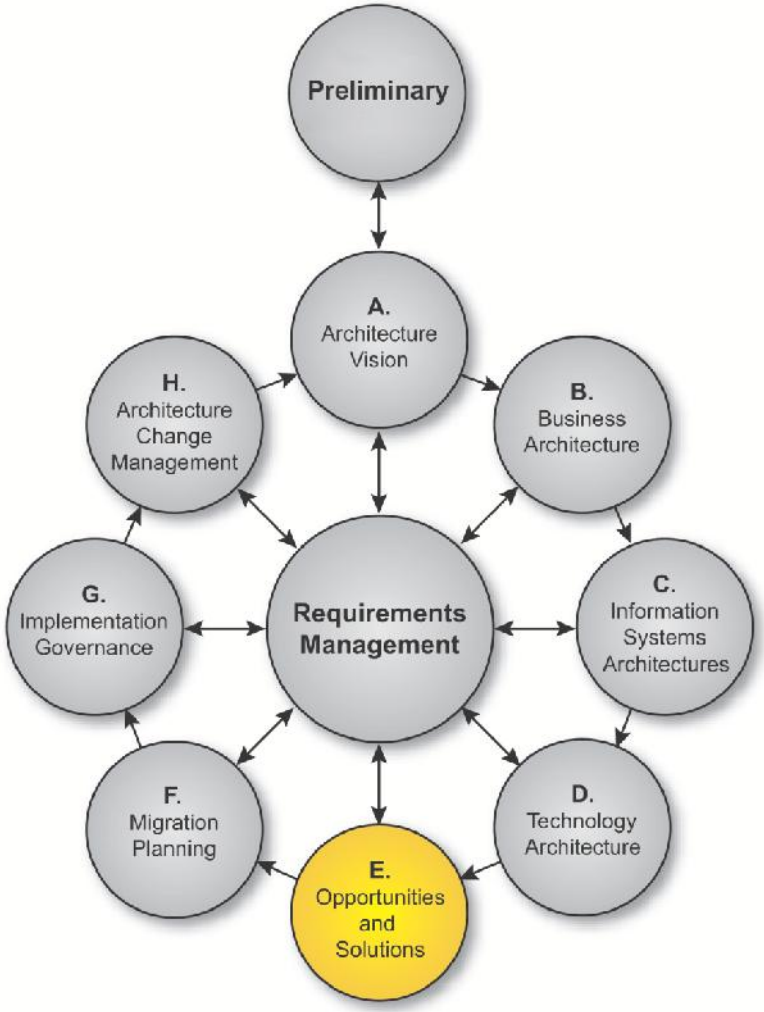
Phase E Outputs



- Capability Assessment, including:
  - Business Capability Assessment
  - IT Capability Assessment
- Architecture Roadmap, including:
  - Work Package portfolio
  - Identification of Transition Architectures, if any
  - Implementation Recommendations
- Implementation & Migration Plan (outline)

Summary



- Phase E is the first phase concerned with implementation
- It identifies the parameters of change, the phases and necessary projects
- The output forms the basis of the Implementation Plan

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Summary

Phase E: Opportunities & Solutions			
Objectives	**Steps**	**Inputs**	**Outputs**
Generate the initial complete version of the Architecture Roadmap, based upon the gap analysis and candidate Architecture Roadmap components from Phases B, C, and D Determine whether an incremental approach is required, and if so identify Transition Architectures that will deliver continuous business value	Determine/confirm key corporate change attributes Determine business constraints for implementation Review and consolidate gap analysis results from Phases B to D Review consolidated requirements across related business functions Consolidate and reconcile interoperability requirements Refine and validate dependencies Confirm readiness and risk for business transformation Formulate Implementation and Migration Strategy Identify and group major work packages Identify Transition Architectures Create Architecture Roadmap & Implementation and Migration Plan	Product information Request for Architecture Work Capability Assessment Communications Plan Planning methodologies Governance models and frameworks Tailored Architecture Framework Statement of Architecture Work Architecture Vision Architecture Repository Draft Architecture Definition Document Draft Architecture Requirements Specification Change Requests for existing programs and projects Candidate Architecture Roadmap components from Phases B, C, and D	Statement of Architecture Work, updated if necessary Architecture Vision, updated if necessary Draft Architecture Definition Document, including: •* Transition Architecture, number and scope, if any Draft Architecture Requirements Specification, updated if necessary Consolidated and validated Architecture Roadmap Capability Assessment, including: •* Business Capability •* IT Capability Architecture Roadmap, including: •* Work Package portfolio •* Identification of Transition Architectures, if any •* Impact analysis – project list •* Implementation Recommendations Implementation and Migration Plan (outline), including: •* Implementation and Migration Strategy

Preliminary Phase
- Principles catalog

Phase A, Architecture Vision
- Stakeholder Map Matrix
- Solution Concept diagram
- Value Chain diagram

Requirements Management
- Requirements catalog

Phase B, Business Architecture
- Organization/Actor catalog
- Driver/Goal/Objective catalog
- Role catalog
- Business Service/Function catalog
- Location catalog
- Process/Event/Control/Product catalog
- Contract/Measure catalog
- Business Interaction matrix
- Actor/Role matrix
- Business Footprint diagram
- Business Service/Information diagram
- Functional Decomposition diagram
- Product Lifecycle diagram
- Goal/Objective/Service diagram
- Business Use-Case diagram
- Organization Decomposition diagram
- Process Flow diagram
- Event diagram

Phase C, Data Architecture
- Data Entity/Data Component catalog
- Data Entity/Business Function matrix
- Application/Data matrix
- Logical Data diagram
- Data Dissemination diagram
- Data Security diagram
- Class Hierarchy diagram
- Data Migration diagram
- Data Lifecycle diagram

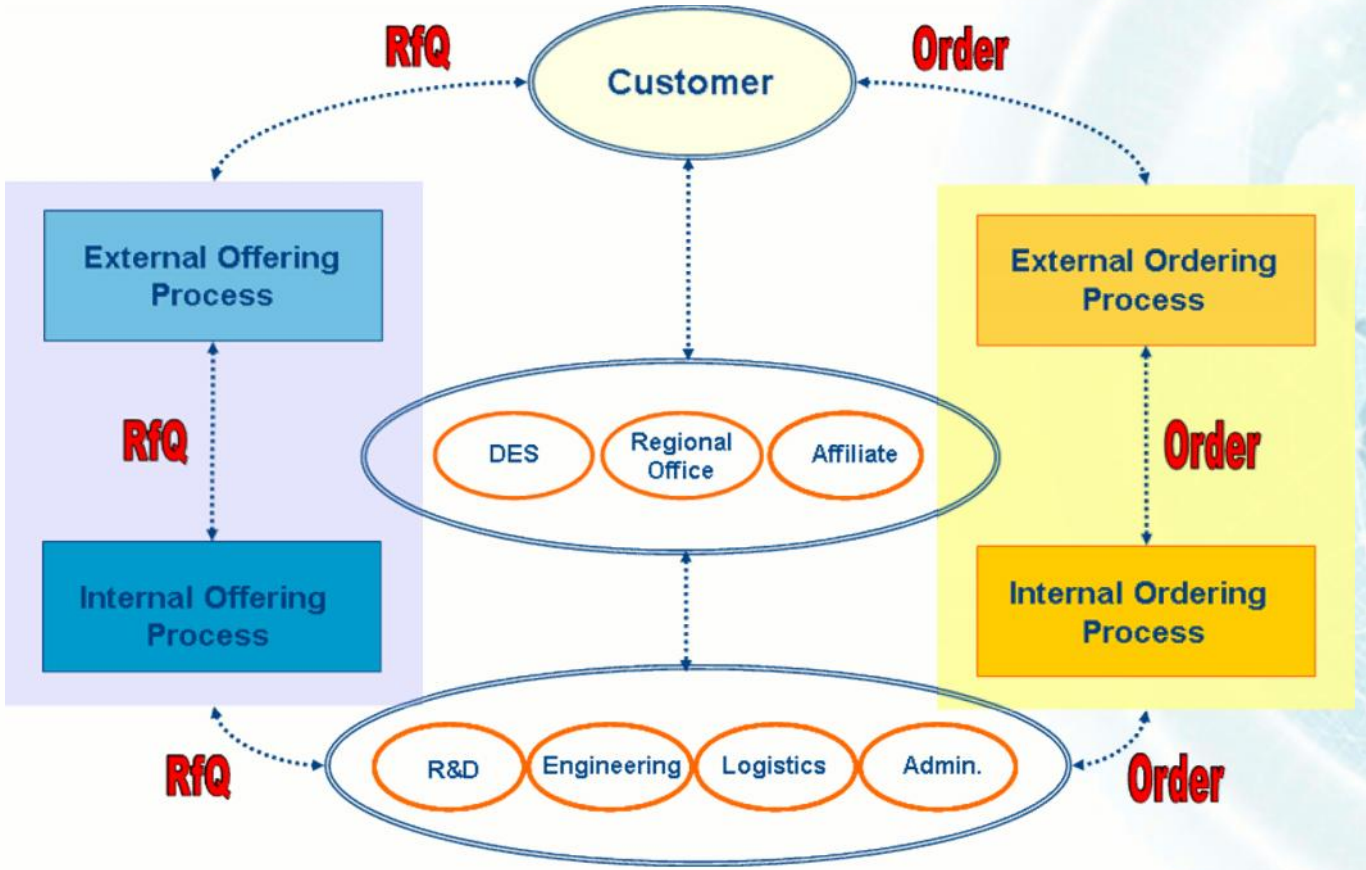
Phase C, Application Architecture
- Application Portfolio catalog
- Interface catalog
- Application/Organization matrix
- Role/Application matrix
- Application/Function matrix
- Application Interaction matrix
- Application Communication diagram
- Application and User Location diagram
- Application Use-Case diagram
- Enterprise Manageability diagram
- Process/Application Realization diagram
- Software Engineering diagram
- Application Migration diagram
- Software Distribution diagram

Phase D, Technology Architecture
- Technology Standards catalog
- Technology Portfolio catalog
- System/Technology matrix
- Environments and Locations diagram
- Platform Decomposition diagram
- Processing diagram
- Networked Computing/Hardware diagram
- Communications Engineering diagram

Phase E. Opportunities & Solutions
- Project Context diagram
- Benefits diagram

TOGAF 9 Artifacts

Project Context Diagram



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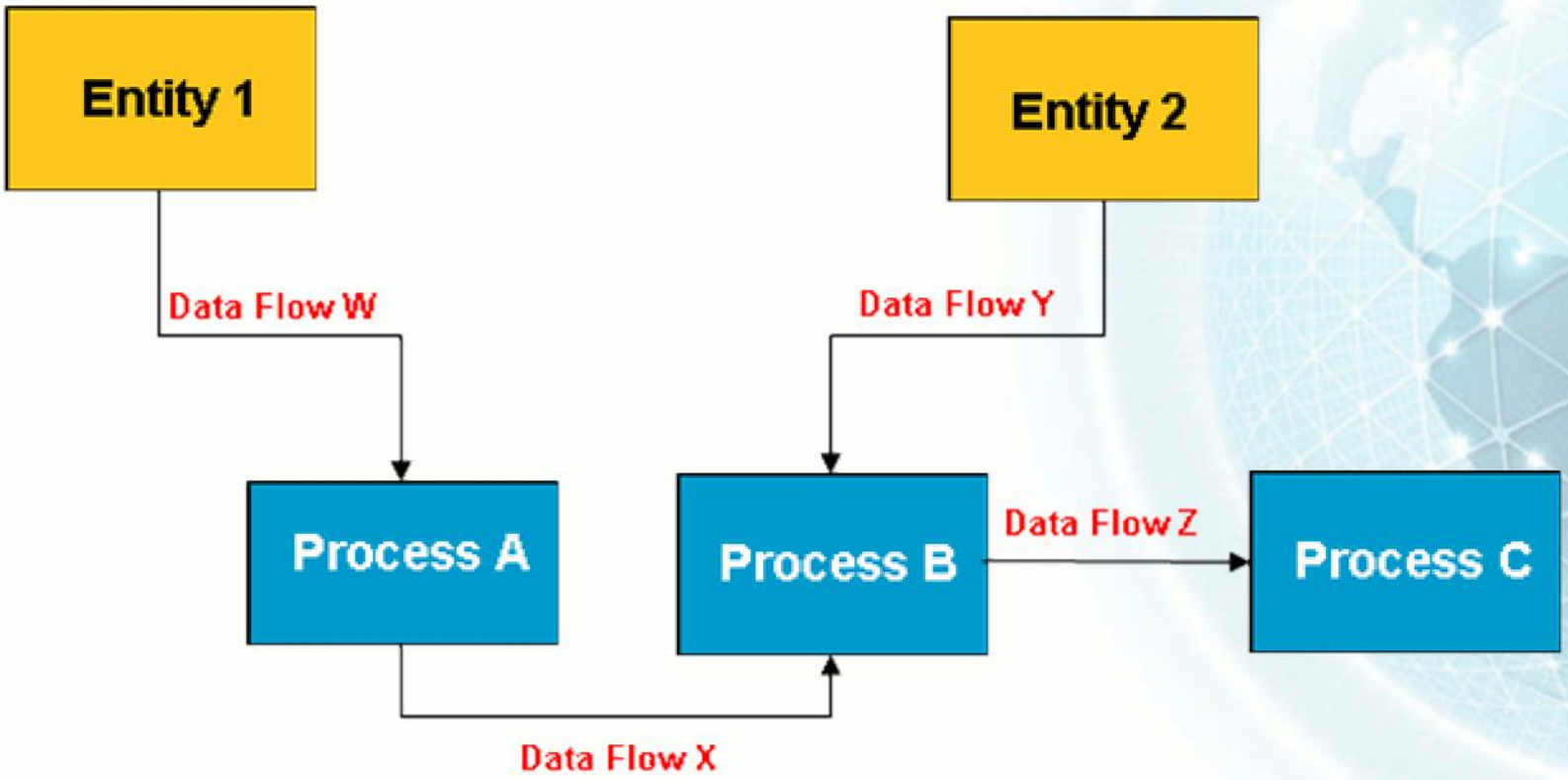
Project Context Diagram



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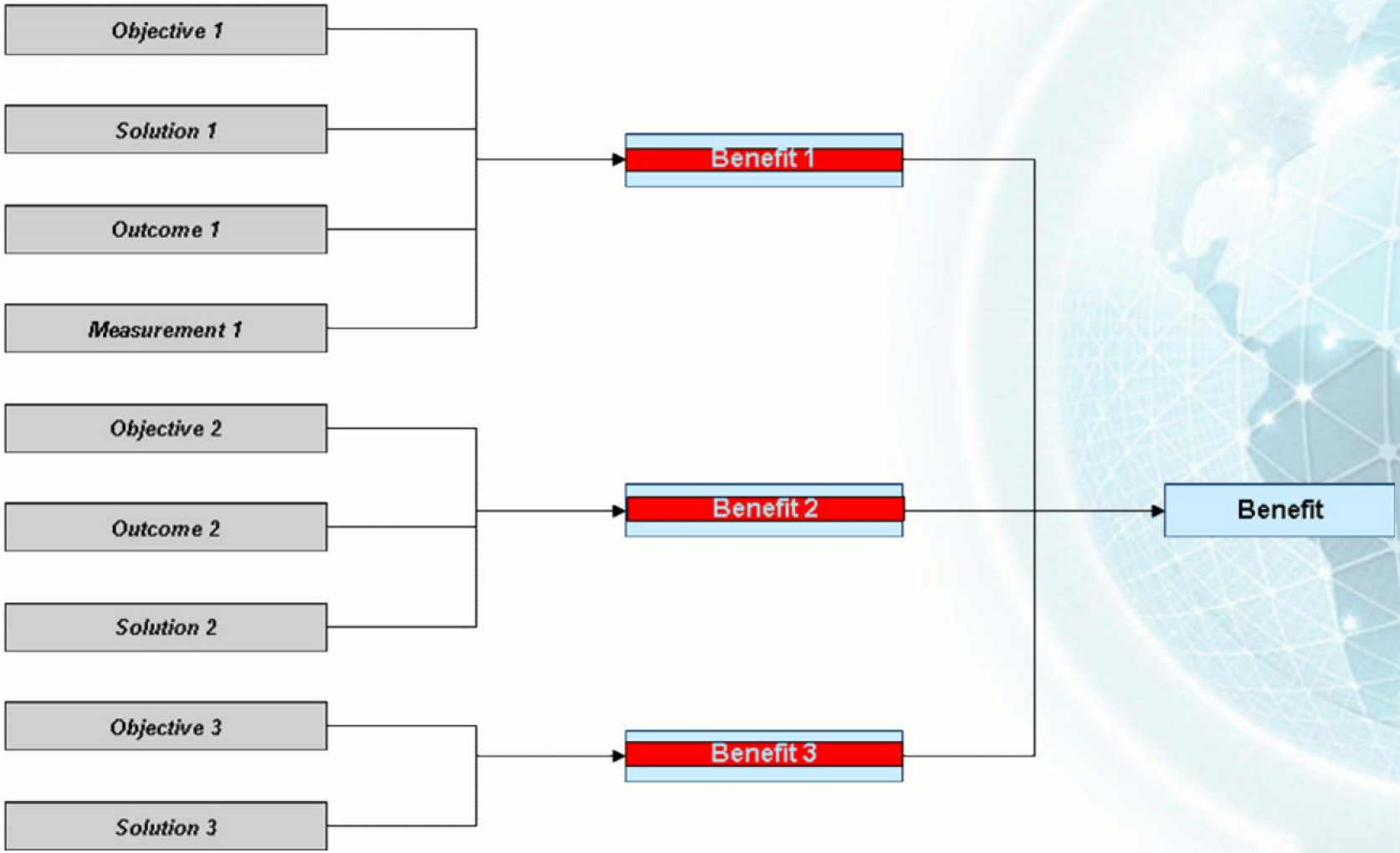
E

Benefits Diagram



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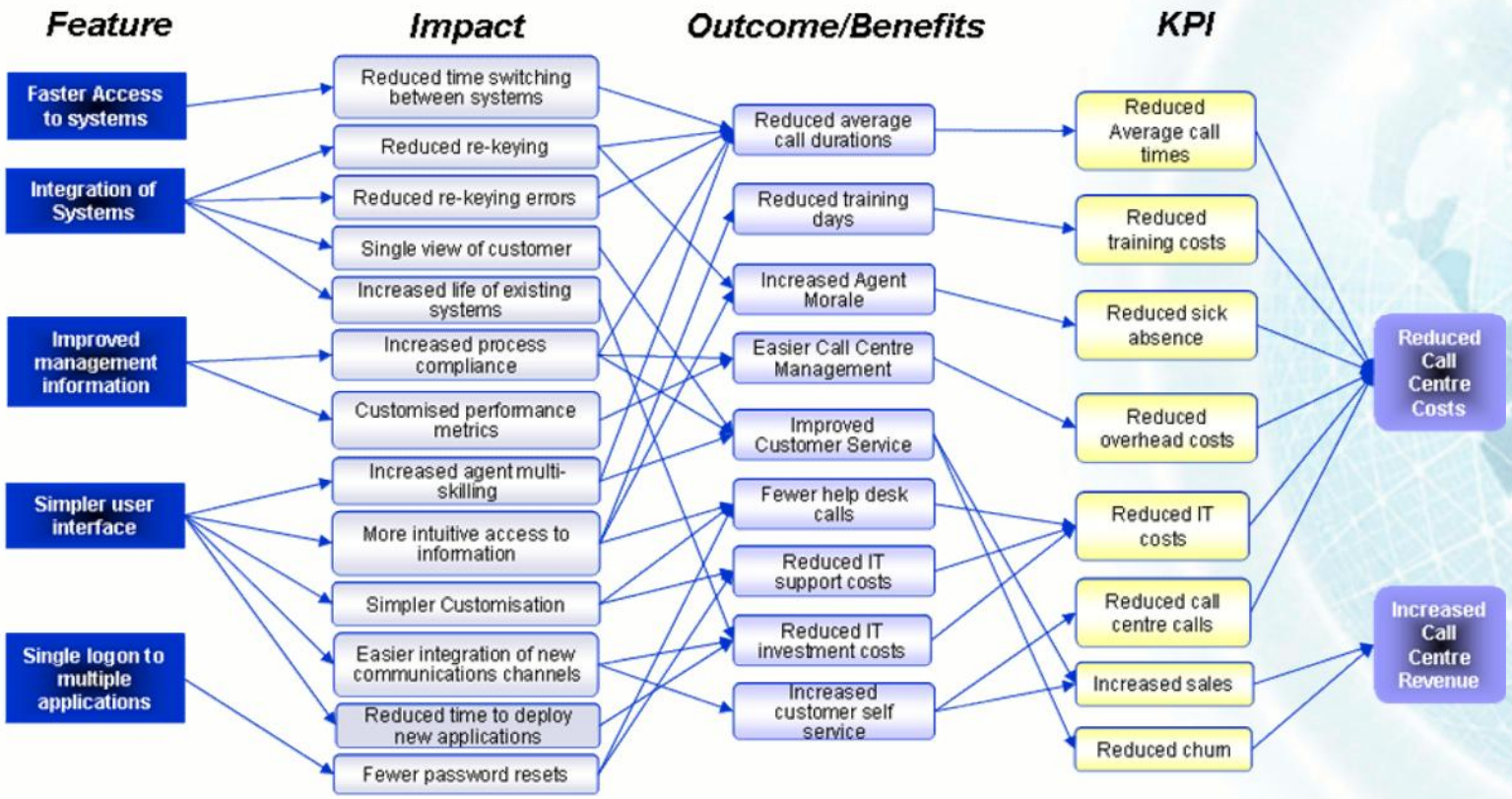
E

Benefits Diagram



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Test Yourself Question

Q. Which of the following is the most successful strategy for Phase E?

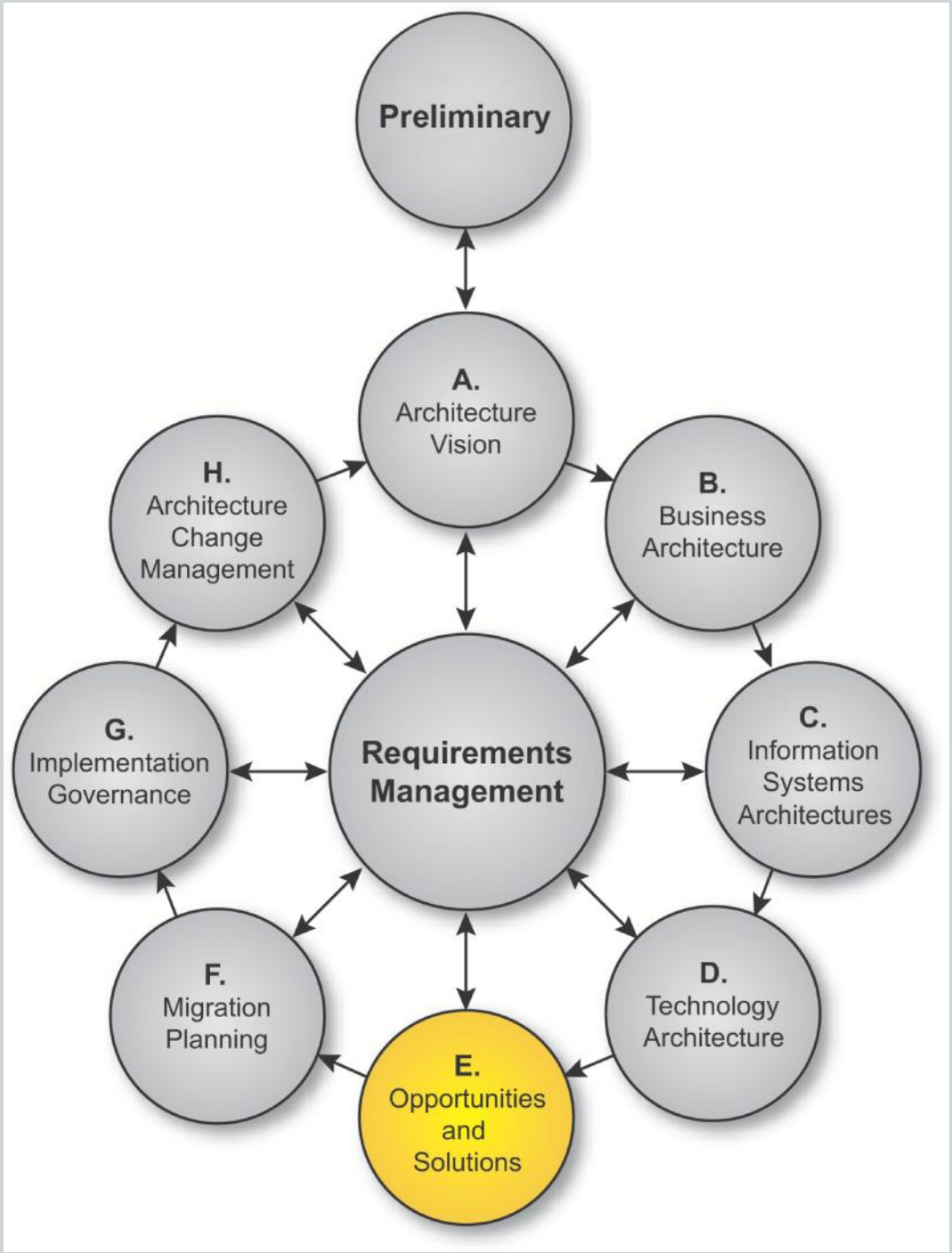
A Focus on the application systems that are relevant to the enterprise

B Focus on projects that will deliver short-term payoffs

C Focus on top-down development

D Reverse engineering

E Trial and error



Phase E: Opportunities and Solutions

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