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Version 9.1 Enterprise Edition

Module 16

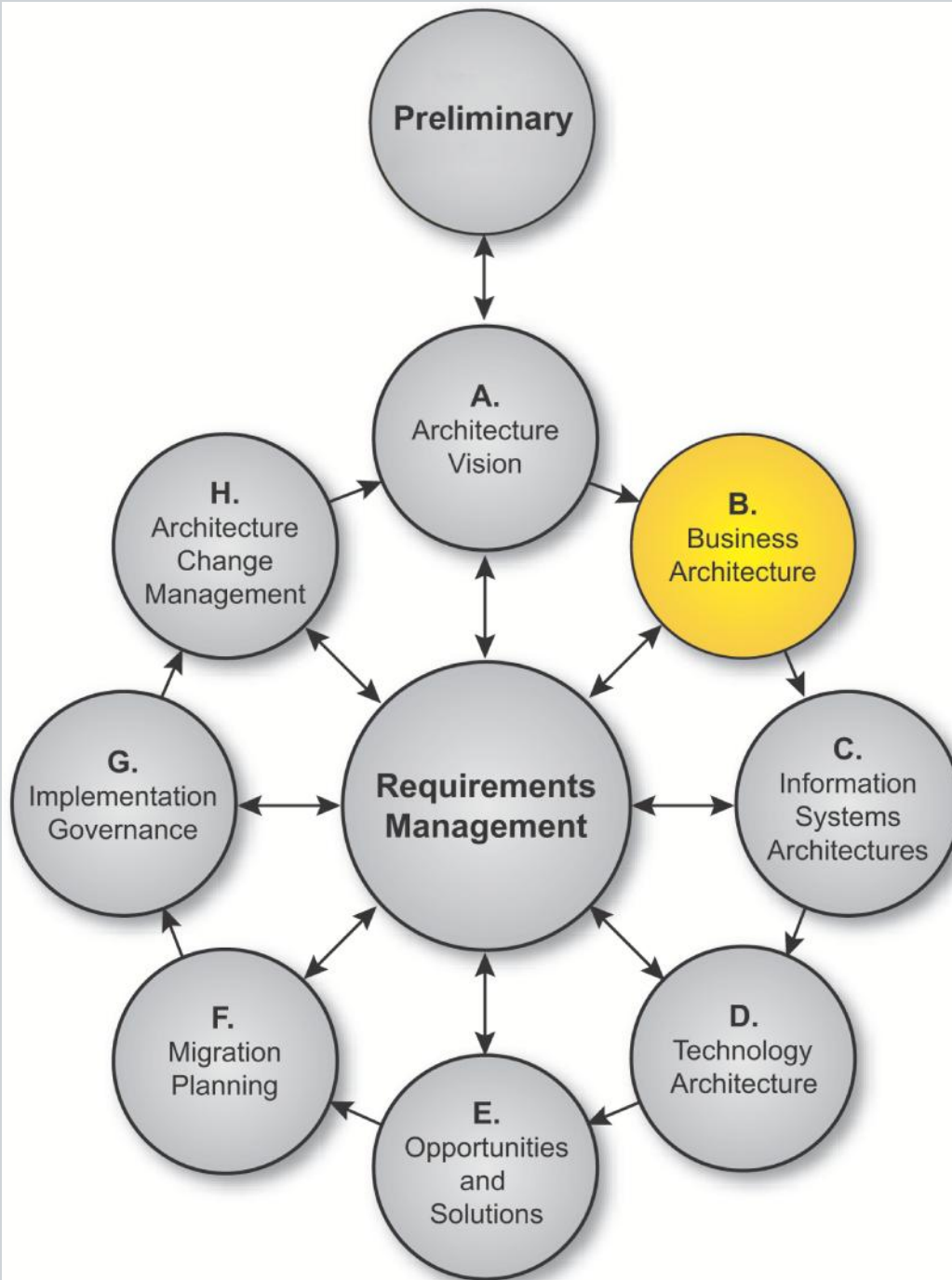
Phase B

Business Architecture

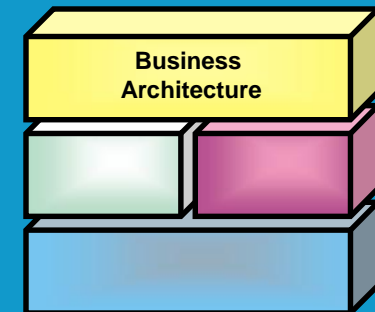
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Phase B: Business Architecture



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Module Objectives

The objectives of this module are to understand Phase B:

- Objectives
- Approach
- Steps
- Inputs
- Outputs

Business Architecture Objectives

The objectives of Phase B are to:

- Develop the Target Business Architecture describing how the enterprise needs to operate to achieve the business goals, responds to the strategic drivers set out in the Architecture Vision, and addresses the Request for Architecture Work and stakeholder concerns
- Identify candidate Architecture Roadmap components based upon gaps between the Baseline and Target Business Architectures



Approach

- Knowledge of the Business Architecture is a prerequisite for architecture work in the other domains (Data, Applications, Technology)
 - and so is the first activity that needs to be undertaken.
- Business Strategy defines *what* to achieve
- Business Architecture describes *how* to achieve it
- This Phase is often required to demonstrate business value of subsequent work to key stakeholders.

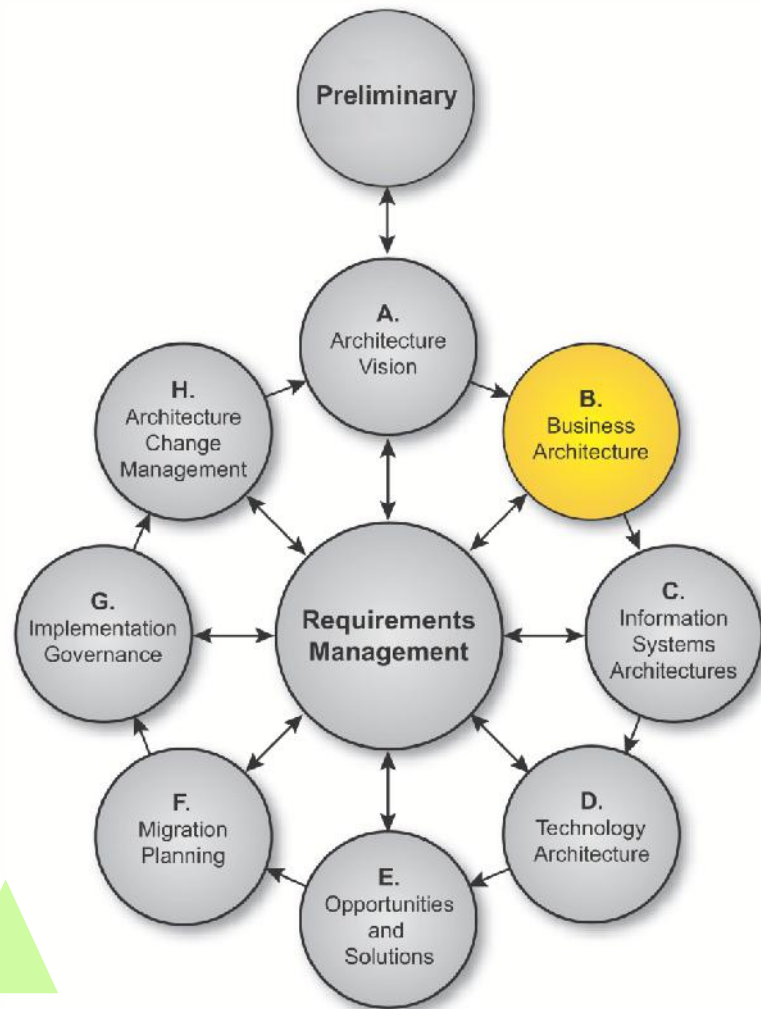


Approach

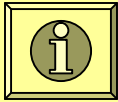
- Scope depends on existing strategy and planning
 - Update and verify
 - bridge between high-level business drivers, strategy, and
 - goals on the one hand, and specific business requirements
 - Existing architecture discovery must include all relevant detail
- If there is no existing strategy or planning:
 - Identify any existing architecture definitions, then verify and update
 - New process definitions may require detailed work
- In both cases, use business scenarios to identify key business objectives and processes



Phase B: Inputs



- Request for Architecture Work
- Refined statements of Business principles, goals and drivers
- Capability Assessment
- Communications Plan
- Organization model for enterprise architecture
- Tailored Architecture Framework
- Approved Statement of Architecture Work
- Architecture Principles
- Enterprise Continuum
- Architecture Repository
- Architecture Vision
- Draft Architecture Definition Document



The order of the steps should be adapted to the situation.

In particular you should determine whether it is appropriate to do the Baseline Business Architecture or Target Business Architecture development first

Steps

9. Create Architecture Definition Document
8. Finalize the Business Architecture
7. Conduct formal stakeholder review
6. Resolve impacts across the Architecture Landscape
5. Define candidate roadmap components
4. Perform gap analysis
3. Develop Target Business Architecture Description
2. Develop Baseline Business Architecture Description
1. Select reference models, viewpoints, and tools

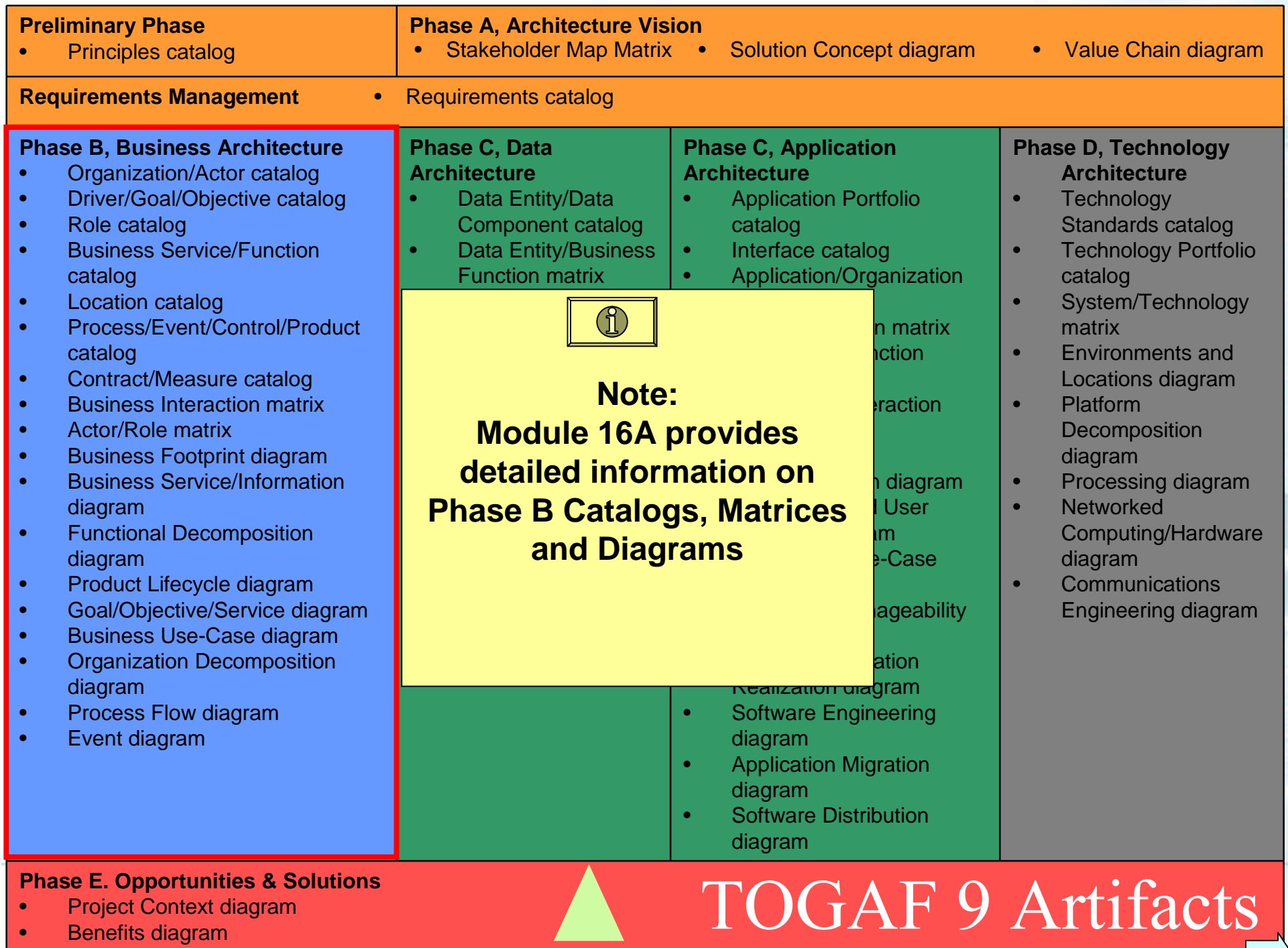


Step 1: Select reference models, viewpoints, and tools

- Select relevant Business Architecture resources from the Architecture Repository, on the basis of the business drivers, stakeholders and concerns.
- Select relevant Business Architecture viewpoints that will enable the architect to demonstrate how the stakeholder concerns are being addressed.
- Identify appropriate tools and techniques to be used for capture, modeling, and analysis with the viewpoints.

Continued...





Catalogs

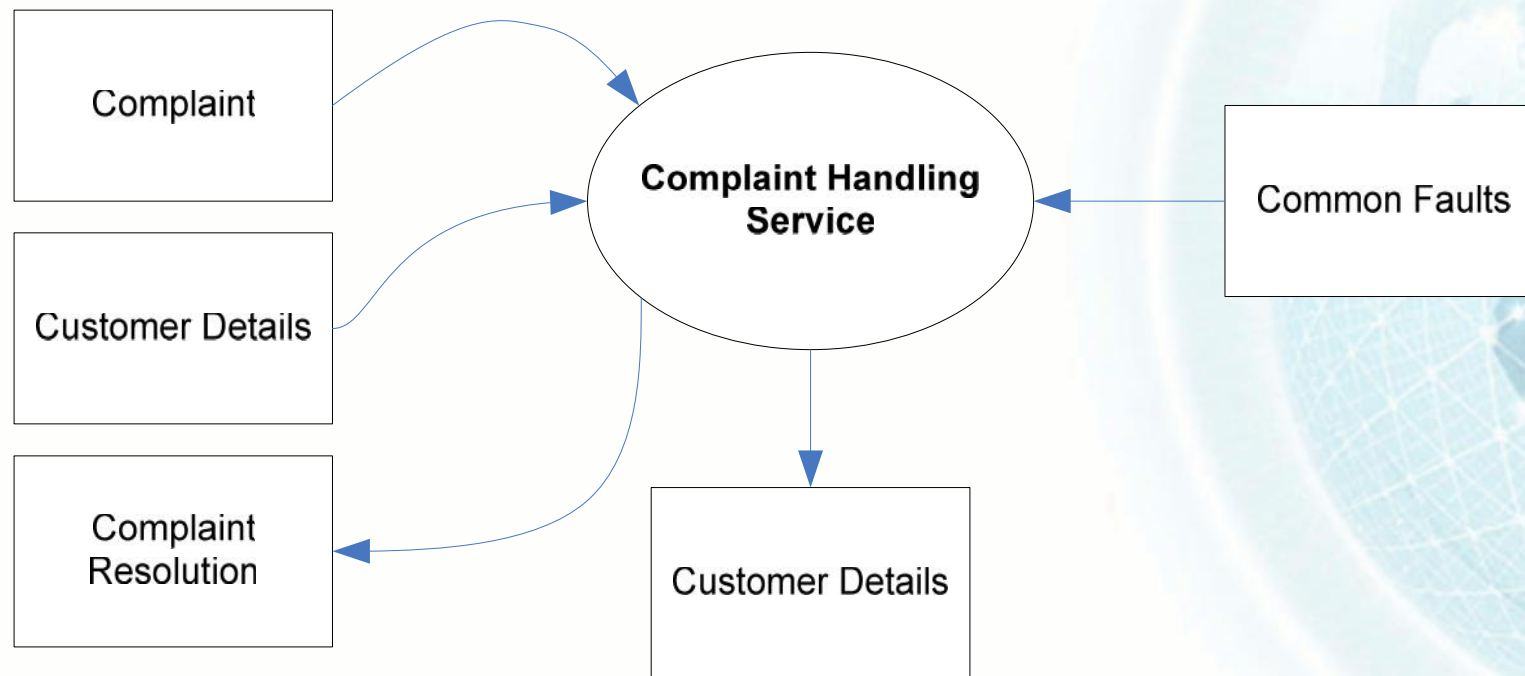
Catalog	Purpose
Organization/ Actor Catalog	<p>A definitive listing of all participants that interact with IT, including users and owners of IT systems.</p> <p>It contains the following metamodel entities:</p> <ul style="list-style-type: none">•Organization Unit, Actor Location (may be included in this catalog if an independent Location catalog is not maintained)
Driver/Goal/ Objective Catalog	<p>A cross-organizational reference of how an organization meets its drivers in practical terms through goals, objectives, and (optionally) measures.</p> <p>It contains the following metamodel entities:</p> <ul style="list-style-type: none">•Organization Unit, Driver, Goal, Objective, Measure (may optionally be included)
Role Catalog	<p>The purpose of the Role catalog is to provide a listing of all authorization levels or zones within an enterprise. Frequently, application security or behavior is defined against locally understood concepts of authorization that create complex and unexpected consequences when combined on the user desktop.</p> <p>It contains the following metamodel entities:</p> <ul style="list-style-type: none">•Role

Actor/role Matrix

- This matrix show which actors perform which roles, supporting definition of security and skills requirements.

	Office of CIO Actors		Steering Group Actors			Business Unit Actors			Strategy and Architecture Actors					Infrastructure Implementation Actors		IT Operations	Project Manager	External Vendors / Suppliers
	CIO	Enterprise Architect	Enterprise Design Authority	Technical Design Authority	IT Management Forum	Business Unit Head	Business Unit Service Owner	Business Unit Application Architect	Head of Strategy and Architecture	Infrastructure Strategist	Infrastructure Solution Architect	Architecture Configuration Mgr	Enterprise Infrastructure Architect	Head of Implementation	Infrastructure Designer			
R = Responsible for carrying out the role A = Accountable for actors carrying out the role C = Consulted in carrying out the role I = Informed in carrying out the role																		
Strategy Lifecycle Roles																		
Architecture Refresh	I	R	A	I	C	C	R	C	C	C	I	I	R	I		C		C
Architecture Roadmap	I	C	A	I	R	C	C	I	C	R	I	I	R	C		C	I	C
Benefits Assessment	I	I	I	I	I	I	I		I	I	R		R	I		C	A	
Change Management		C		I	A	I	I	I	R	I	I	I	R	R		C		
Framework Refresh		C	C	C	C	C	I	C	A	I	I	I	R	C		C	I	
Project Lifecycle Roles																		
Solution Architecture Vision	I	I	I	A	I	I	C	C	I	I	R	I	C			C	R	
Logical Solution Architecture				A	I	I	C	C	I	I	R	I	C		C	C	R	
Physical Solution Architecture				A	I	I	C	C	I	I	R	I	C		R	C	R	
Design Governance				A	I	I	C	C	I	I	R	I	C		R	C	C	
Architecture Configuration Management				C					I	I	R	R	R				A	

Example Business Service/Information



Basic example

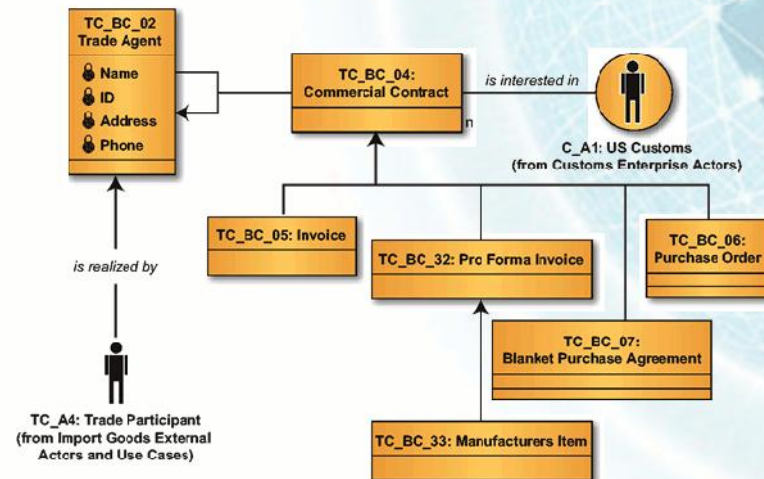
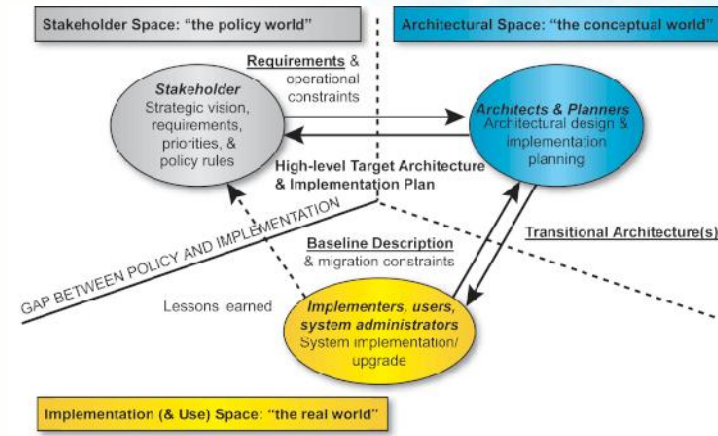
Step 1: Select reference models, viewpoints, and tools

- Determine Overall Modeling Process
- Identify Required Service Granularity Level, Boundaries, and Contracts
- Identify Required Catalogs of Business Building Blocks
- Identify Types of Requirement to be Collected
 - Identify requirements to be met by the Architecture
 - Formalize the business-focused requirements
 - Provide requirements input for Data, Application and Technology Architectures
 - If applicable, provide detailed guidance to be reflected during design and implementation

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Modeling Examples

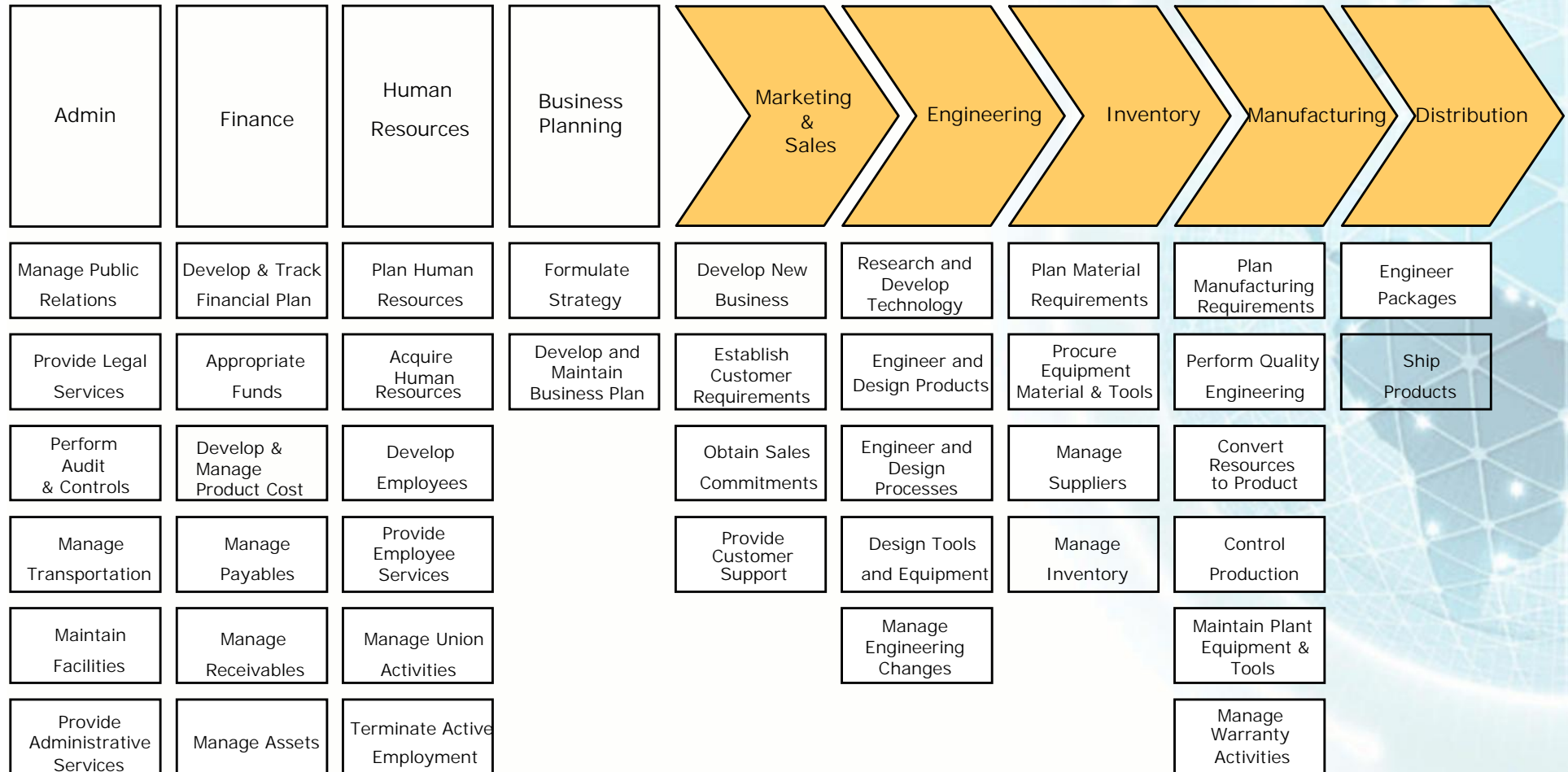
	1:Initiate	2:Discuss Reqmts	3:Create Config	4:Verify Config	5:Price	6:Confirm	7:Order	8:Accept
Sales Person	Greets customer	Listens	Represents options with different capabilities	Accesses ICSys and SchSys and presents availability to customer	Accesses price system and presents price to customer	Presents offer	Accesses order system	Presents contract
Customer	Accepts sales person	Discusses problems/ desires	Listens and decides on options based on capabilities	Accepts or rejects		Accepts or rejects		Signs or rejects
Sales Person's Laptop			Interacts with configurator	Interacts with ICSys and SchSys	Interacts with price system		Interacts with order system and receives fax response	
Sales Person's CIPR			Provides central information processing					
Sales Person's LIPR			Provides local information processing					
ProdConfig			Presents configs to sales person per needs, providing capabilities					
ICSys				Provides availability				
SchSys				Provides delivery date				
\$Sys					Provides price information on a config			
OrderSys							Processes order and sends fax of order to sales person's laptop	



Functional Decomposition Diagram

Support

Primary



Step 2: Develop Baseline Business Architecture Description

- Must be complete, but without unnecessary detail
- If possible, identify the relevant Business Architecture building blocks, drawing on the Architecture Repository
- If not, develop a new architecture description:
 - use the models identified within Step 1 as a guideline



Step 3: Develop Target Business Architecture Description

- If possible, identify the relevant Business Architecture building blocks, drawing on the Architecture Repository
- If not, develop a new architecture description:
 - use the models identified within Step 1 as a guideline



Step 4: Perform Gap Analysis

Verify the architecture models for internal consistency and accuracy:

- Perform trade-off analysis to resolve conflicts (if any) among the different views
- Validate that the models support the principles, objectives, and constraints
- Note changes to the viewpoint represented in the selected models from the Architecture Repository, and document
- Test architecture models for completeness against requirements
- Identify gaps between the baseline and target using Gap Analysis technique

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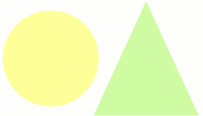


Step 4: Perform Gap Analysis

Gap analysis highlights services and/or functions that have been omitted or are yet to be developed; these are the gaps. They should be marked as 'correctly eliminated' or as 'to be addressed by reinstating, developing or procuring'.

1. Create a matrix of business ABBs:
 - Put 'Current architecture' + 'New Services' on the vertical axis
 - Put 'Target Architecture' + 'Eliminated Services' on the horizontal axis
2. Mark ABBs that are common to both as 'Included'

Continued...



Step 4: Perform Gap Analysis

3. Review blocks missing from current:
 - Confirm as 'Eliminated'
 - Else mark for 'Review'
4. Mark any 'New Services' as gap to be filled by acquiring function by either:
 - Development
 - Procurement



Gap Analysis Exercise

Given the following ABBs in the baseline architecture:

- Broadcast services, Video conferencing services, Enhanced telephony services, Shared screen services.

And the following ABBs in the target architecture:

- Video conferencing services, Enhanced telephony services, Mailing list services.

Assume that 'Shared screen services' has been unintentionally excluded and that the 'Enhanced telephony services' of the baseline may match those needed.

Draw the gap analysis matrix.



Gap Analysis: Answer

Target Architecture →	Video Conferencing Services	Enhanced Telephony Services	Mailing List Services	Eliminated Services ↓
Current Architecture ↓				
Broadcast Services				Intentionally Eliminated
Video Conferencing Services	Included			
Enhanced Telephony Services		Potential Match		
Shared Screen Services				Unintentionally excluded - a gap in target architecture
New →		Gap: Enhanced services to be developed or produced	Gap: to be developed or produced	



Step 5: Define candidate roadmap components

- The initial Business Architecture roadmap will be used as raw material to support more detailed definition of a consolidated, cross-discipline roadmap within the Opportunities & Solutions phase.



Step 6: Resolve impacts across the Architecture Landscape

- Architecture artifacts in the Architecture Landscape should be examined to identify:
 - Does this Business Architecture create an impact on any pre-existing architectures?
 - Have recent changes been made that impact on the Business Architecture?
 - Are there any opportunities to leverage work from this Business Architecture in other areas of the organization?
 - Does this Business Architecture impact other projects ?
 - Will this Business Architecture be impacted by other projects?

Step 7: Conduct Formal Stakeholder Review

- This is a formal review of the model and building blocks selected.
- The purpose is to compare proposed business architecture against the SOW.
- It is possible to loop back to earlier steps if necessary.



Step 8: Finalize the Business Architecture

- Select standards for each of the ABBs, reusing where possible from the Architecture Repository.
- Fully document each ABB.
- Cross check the overall architecture against the business goals.
- Document final requirements traceability report.
- Document final mapping of the architecture within the Architecture Repository. From the selected ABBs, identify those that might be reused and publish via the architecture repository.



Step 9: Create Architecture Definition Document

- Document the rationale for all building block decisions in the architecture definition document.
- Prepare the Business sections of the architecture definition document report.
- If appropriate, use reports and/or graphics generated by modeling tools to demonstrate key views of the architecture. Route the document for review by relevant stakeholders, and incorporate feedback.

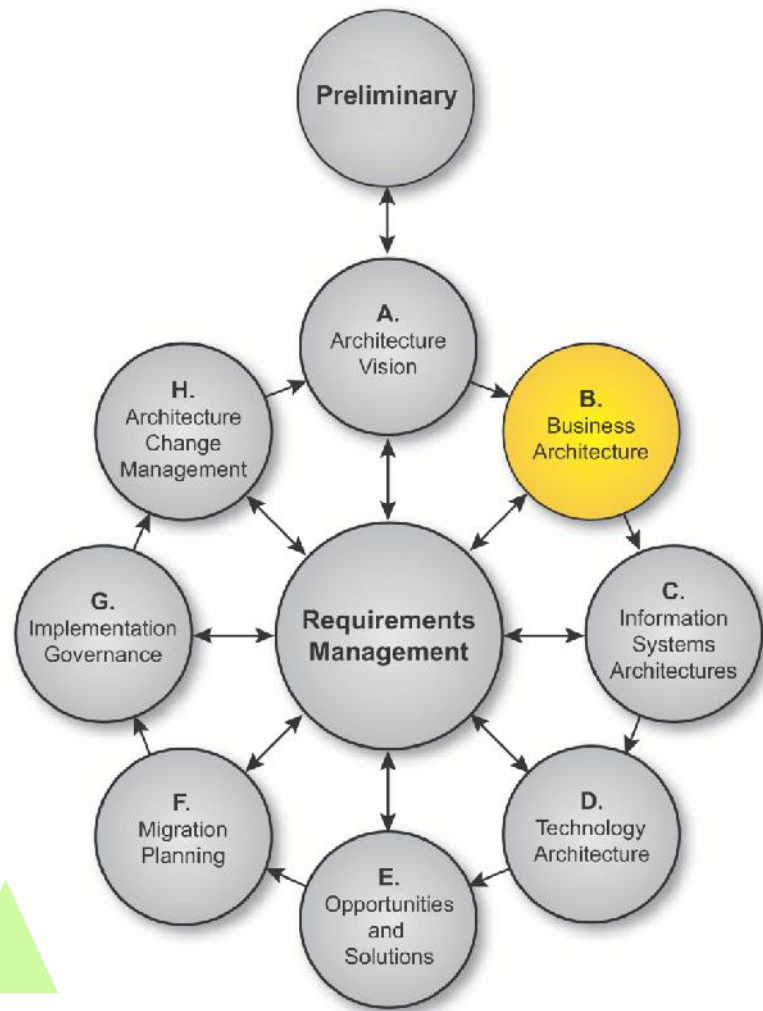


Summary of Building Block usage in Phase B

- When creating the Baseline and Target Architecture descriptions, the architect should identify relevant Business Architecture building blocks
 - Drawing from the Architecture Repository
 - TOGAF includes example catalogs, matrices and diagrams that can be used to model the decomposition of a building block
- Gap Analysis is used to identify building blocks to carry over to the target; eliminated building blocks; and new, required building blocks
- When finalizing the Business Architecture, standards are selected for each building block
 - each building block is documented
 - those which look likely to be re-usable are published in the Architecture Repository



Phase B: Outputs



- Statement of Architecture Work
- Validated business principles, goals and drivers
- Elaborated Business Architecture principles
- Draft Architecture Definition Document
- Draft Architecture Requirements Specification
- Business Architecture components of an Architecture Roadmap

Architecture Definition Document

- Scope
- Goals, objectives, and constraints
- Architecture principles
- Baseline Architecture
- Architecture models (for each state to be modeled):
 - Business Architecture models
 - Data Architecture models
 - Application Architecture models
 - Technology Architecture models
- Rationale and justification for architectural approach
- Mapping to Architecture Repository:
 - Mapping to Architecture Landscape
 - Mapping to reference models
 - Mapping to standards
 - Re-use assessment
- Gap analysis
- Impact assessment
- Transition Architecture



Architecture Definition Document – Business Architecture Components

- Baseline Business Architecture, if appropriate – this is a description of the existing Business Architecture
- Target Business Architecture, including:
 - Organization structure – identifying business locations and relating them to organizational units
 - Business goals and objectives – for the enterprise and each organizational unit
 - Business functions – a detailed, recursive step involving successive decomposition of major functional areas into sub-functions
 - Business services – the services that the enterprise and each enterprise unit provides to its customers, both internally and externally
 - Business processes, including measures and deliverables
 - Business roles, including development and modification of skills requirements
 - Business data model
 - Correlation of organization and functions – relate business functions to organizational units in the form of a matrix report
- Views corresponding to the selected viewpoints addressing key stakeholder concerns

Architecture Requirements Specification

- Success measures
- Architecture requirements
- Business service contracts
- Application service contracts
- Implementation guidelines
- Implementation specifications
- Implementation standards
- Interoperability requirements
- IT service management requirements
- Constraints
- Assumptions

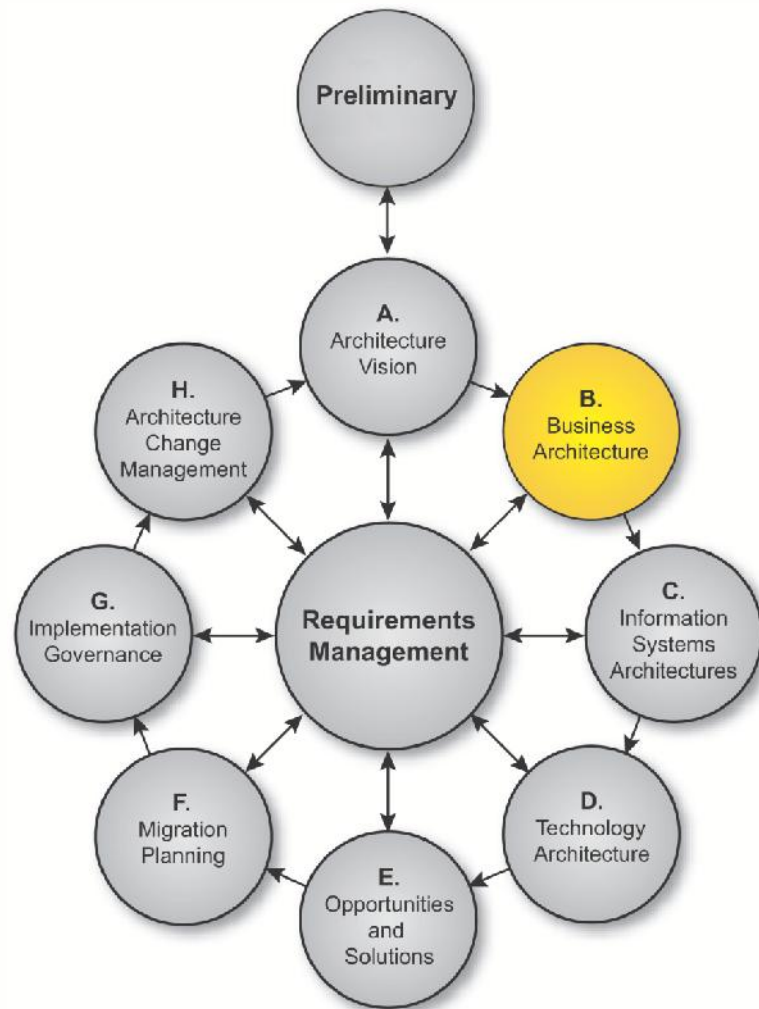


Architecture Requirements Specification – Business Architecture Components

- Gap analysis results
- Technical requirements
- Updated business requirements



Summary



- Phase B is about documenting the fundamental organization of a business
 - Embodied in its business processes and people
 - Their relationships to each other and the environment
 - The principles governing its design and evolution
 - How the organization meets its business goals

Summary

Phase B: Business Architecture			
Objectives	Steps	Inputs	Outputs
<p>Develop the Target Business Architecture describing how the enterprise needs to operate to achieve the business goals, responds to the strategic drivers set out in the Architecture Vision, and addresses the Request for Architecture Work and stakeholder concerns</p> <p>Identify candidate Architecture Roadmap components based upon gaps between the Baseline and Target Business Architectures</p>	<p>Select reference models, viewpoints, and tools</p> <p>Develop Baseline Business Architecture Description</p> <p>Develop Target Business Architecture Description</p> <p>Perform gap analysis</p> <p>Define candidate roadmap components</p> <p>Resolve impacts across the Architecture Landscape</p> <p>Conduct formal stakeholder review</p> <p>Finalize the Business Architecture</p> <p>Create Architecture Definition Document</p>	<p>Request for Architecture Work</p> <p>Business principles, business goals, and business drivers</p> <p>Capability Assessment</p> <p>Communications Plan</p> <p>Organizational Model for Enterprise Architecture</p> <p>Tailored Architecture Framework</p> <p>Approved Statement of Architecture Work</p> <p>Architecture principles, including business principles, when pre-existing</p> <p>Enterprise Continuum</p> <p>Architecture Repository</p> <p>Architecture Vision, including:</p> <ul style="list-style-type: none"> • Refined key high-level stakeholder requirements <p>Draft Architecture Definition Document, including:</p> <ul style="list-style-type: none"> • * Baseline Business Architecture (high-level) • * Baseline Data Architecture (high-level) • * Baseline Application Architecture (high-level) • * Baseline Technology Architecture (high-level) • * Target Business Architecture (high-level) • * Target Data Architecture (high-level) • * Target Application Architecture (high-level) • * Target Technology Architecture (high-level) 	<p>Statement of Architecture Work, updated if necessary</p> <p>Validated business principles, business goals, and business drivers</p> <p>Elaborated Business Architecture principles</p> <p>Draft Architecture Definition Document containing content updates:</p> <ul style="list-style-type: none"> • * Baseline Business Architecture (detailed), if appropriate • * Target Business Architecture (detailed) • * Views corresponding to selected viewpoints addressing key stakeholder concerns <p>Draft Architecture Requirements Specification including content updates:</p> <ul style="list-style-type: none"> • * Gap analysis results • * Technical requirements • * Updated business requirements <p>Business Architecture components of an Architecture Roadmap</p>

Test Yourself Question

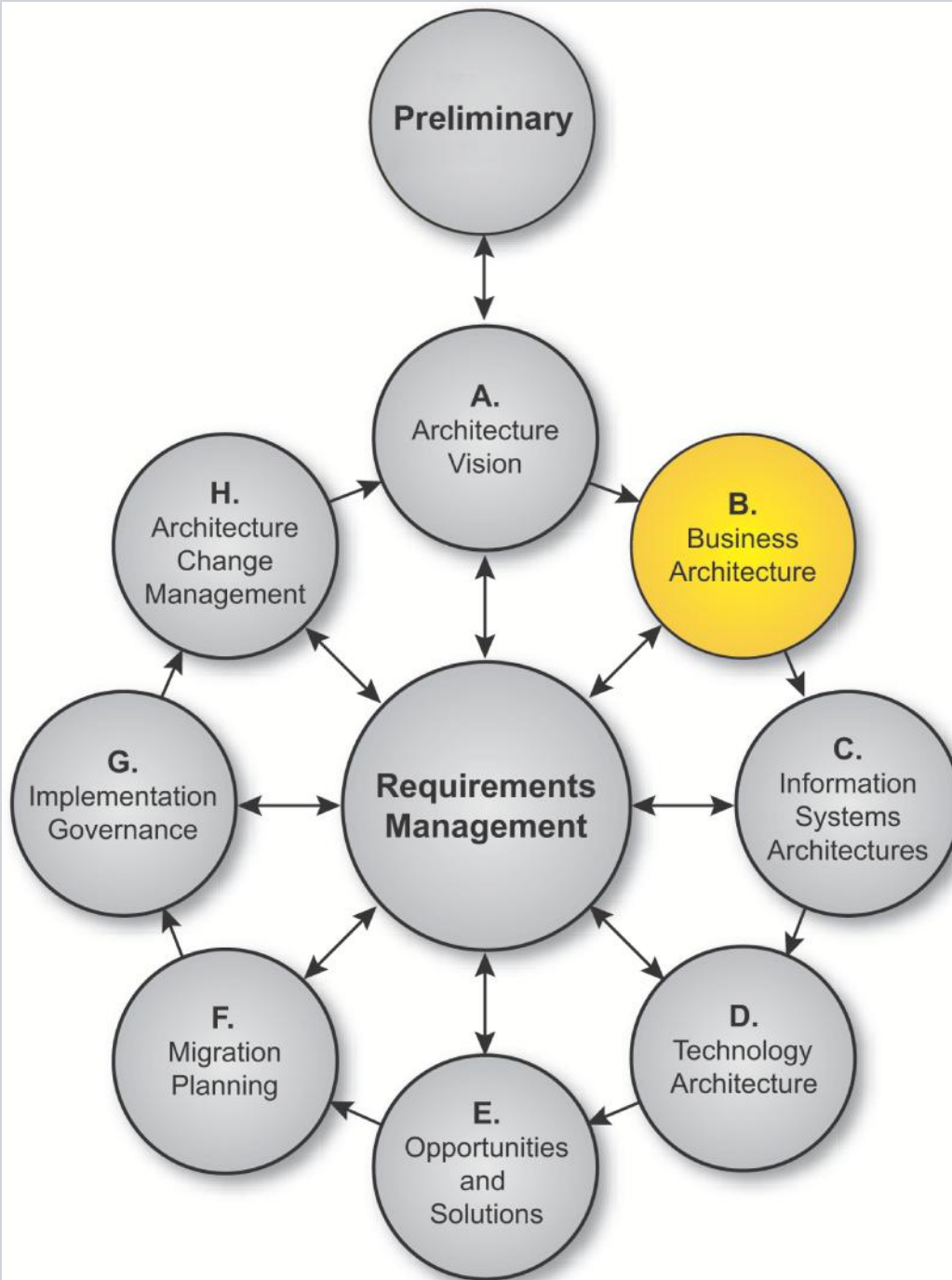
Q. Choose the correct ending for the following phrase:

“Business Architecture is the first architecture activity undertaken because ...”

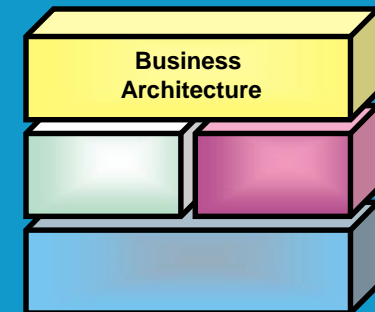
- A. It is often necessary to demonstrate the business value of the overall architecture activity
- B. It provides knowledge that is a prerequisite for undertaking architecture work in the other domains (data, applications, technology)
- C. It can be used to demonstrate the return on investment to key stakeholders
- D. It embodies the fundamental organization of a business and shows how an organization meets its business goals
- E. All of the above

Exercise

- Identify five sources of information within your organization that could be used to draw up a Baseline Business Architecture Description.



Phase B: Business Architecture



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