

Product Architecture



ProPath

Office of Information and Technology

Table of Contents

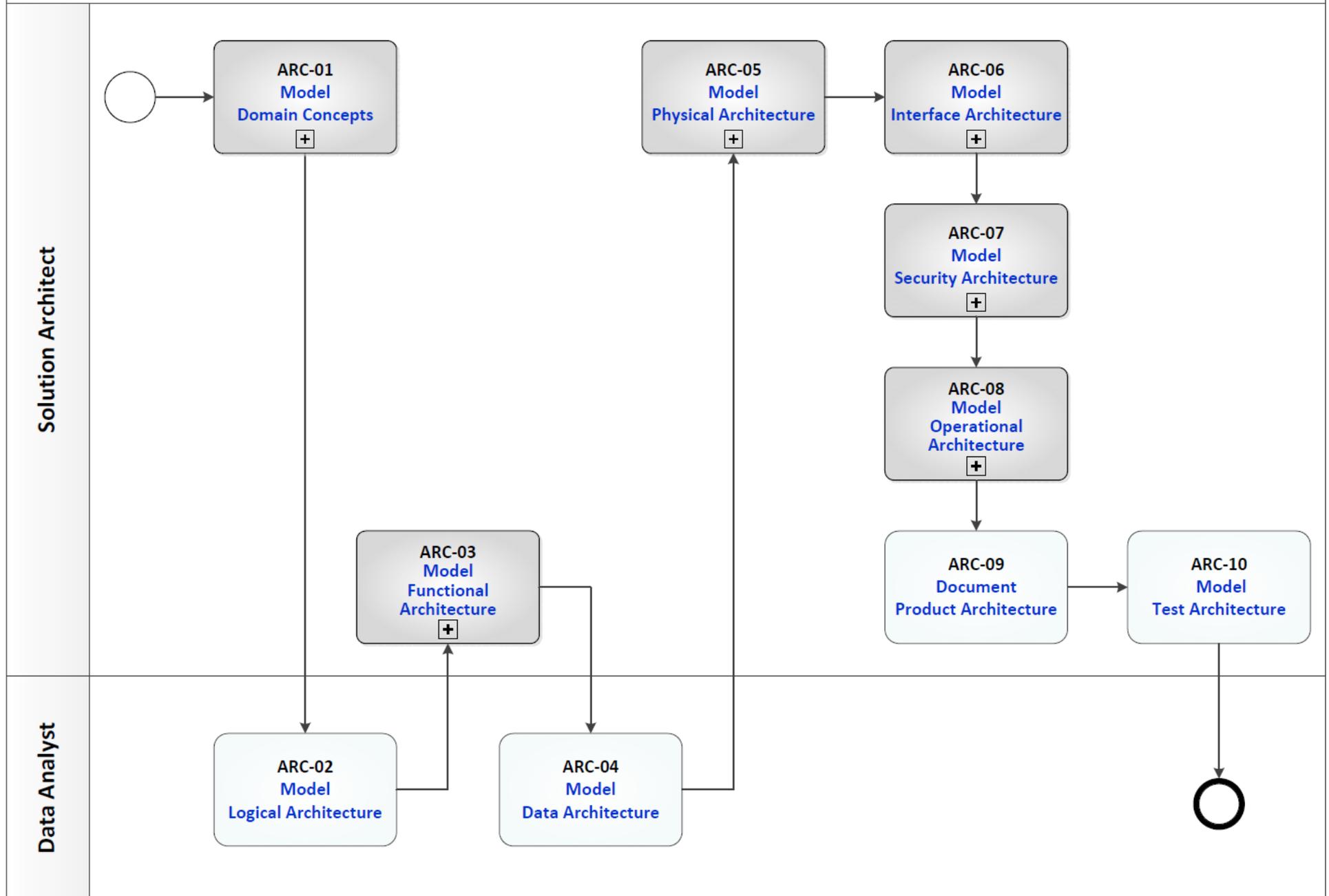
Product Architecture Process Maps	1
Process: Product Architecture	8
Product Architecture Description and Goals	9
Description	9
Goals	9
Product Architecture RACI Information.....	10
Product Architecture Associated Artifacts Information	15
Product Architecture Tools and Web Sites Information.....	15
Product Architecture Standards Information	15
Product Architecture Process	16
Process Activity Name: ARC-01 Model Domain Concepts.....	16
Process Activity Name: ARC-01.01 Create Conceptual Business Diagram... 	16
Process Activity Name: ARC-01.02 Create Domain Glossary of Terms.....	17
Process Activity Name: ARC-02 Model Logical Architecture.....	18
Process Activity Name: ARC-03 Model Functional Architecture	19
Process Activity Name: ARC-03.01 Create Activity Hierarchy Diagram.....	20
Process Activity Name: ARC-03.02 Create Functional Flow Diagram.....	21
Process Activity Name: ARC-03.03 Create Data Flow Diagram	22
Process Activity Name: ARC-04 Model Data Architecture	23
Process Activity Name: ARC-05 Model Physical Architecture.....	24
Process Activity Name: ARC-05.01 Create Hardware Architecture Diagram. 	25
Process Activity Name: ARC-05.02 Create Topological Architecture Diagram	26
Process Activity Name: ARC-05.03 Create Nodes Connectivity Diagram.....	28
Process Activity Name: ARC-05.04 Create Configuration Diagram.....	29
Process Activity Name: ARC-06 Model Interface Architecture	30
Process Activity Name: ARC-06.01 Document Interface Requirements	31
Process Activity Name: ARC-06.02 Create Interface Architecture Diagram ..	32
Process Activity Name: ARC-06.03 Define Interface Data Mapping	33
Process Activity Name: ARC-07 Model Security Architecture	35
Process Activity Name: ARC-07.01 Document Security Requirements	35
Process Activity Name: ARC-07.02 Create Trust Model	37
Process Activity Name: ARC-08 Model Operational Architecture	38
Process Activity Name: ARC-08.01 Create Deployment Diagram.....	38
Process Activity Name: ARC-08.02 Create Integration Architecture Diagram	40
Process Activity Name: ARC-08.03 Create Service Model	41

Process Activity Name: ARC-09 Document Product Architecture	42
Process Activity Name: ARC-10 Model Test Architecture.....	44

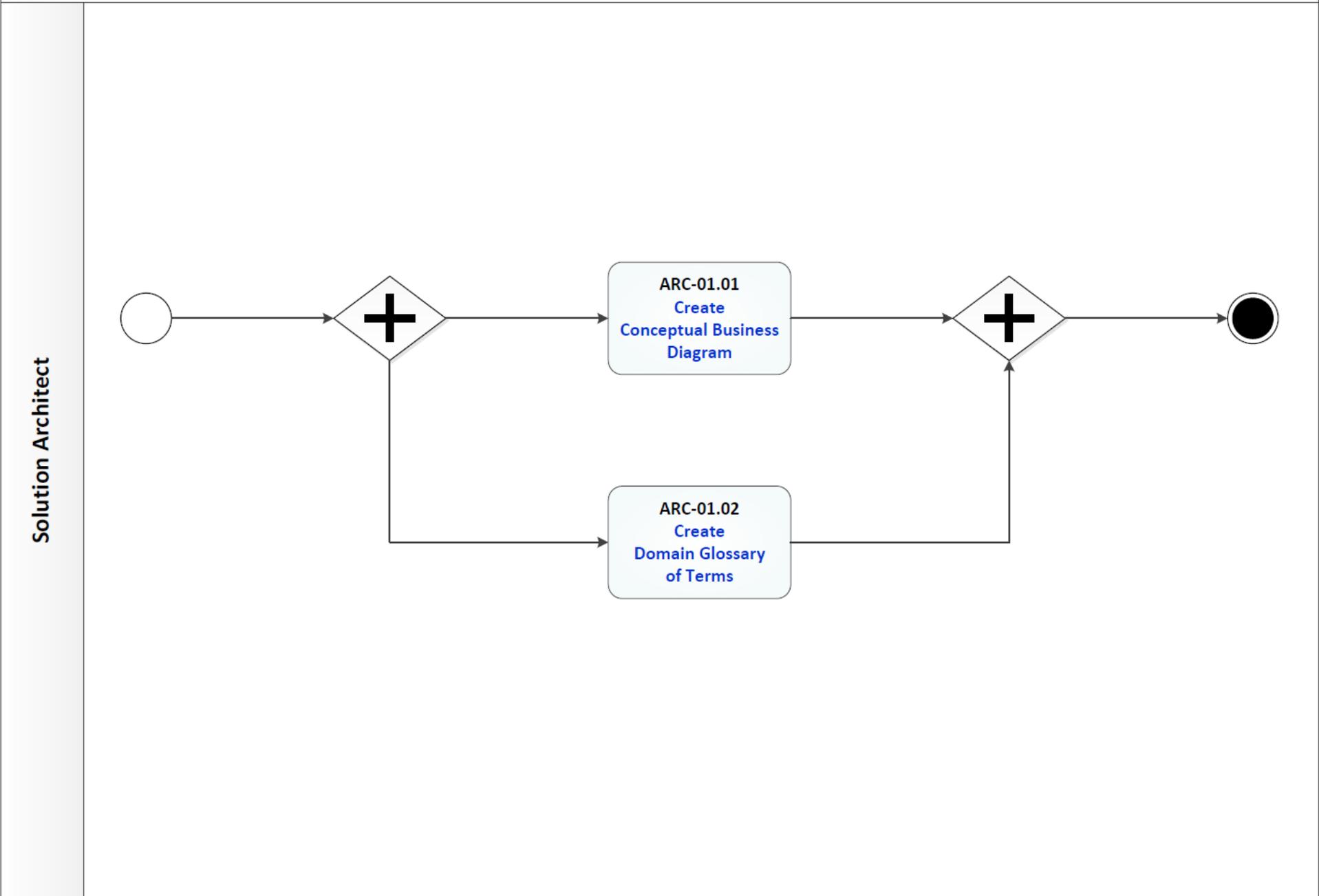
Product Architecture Process Maps

Product Architecture (ARC)

[Home](#) [Overview](#) [RACI](#) [Help](#)

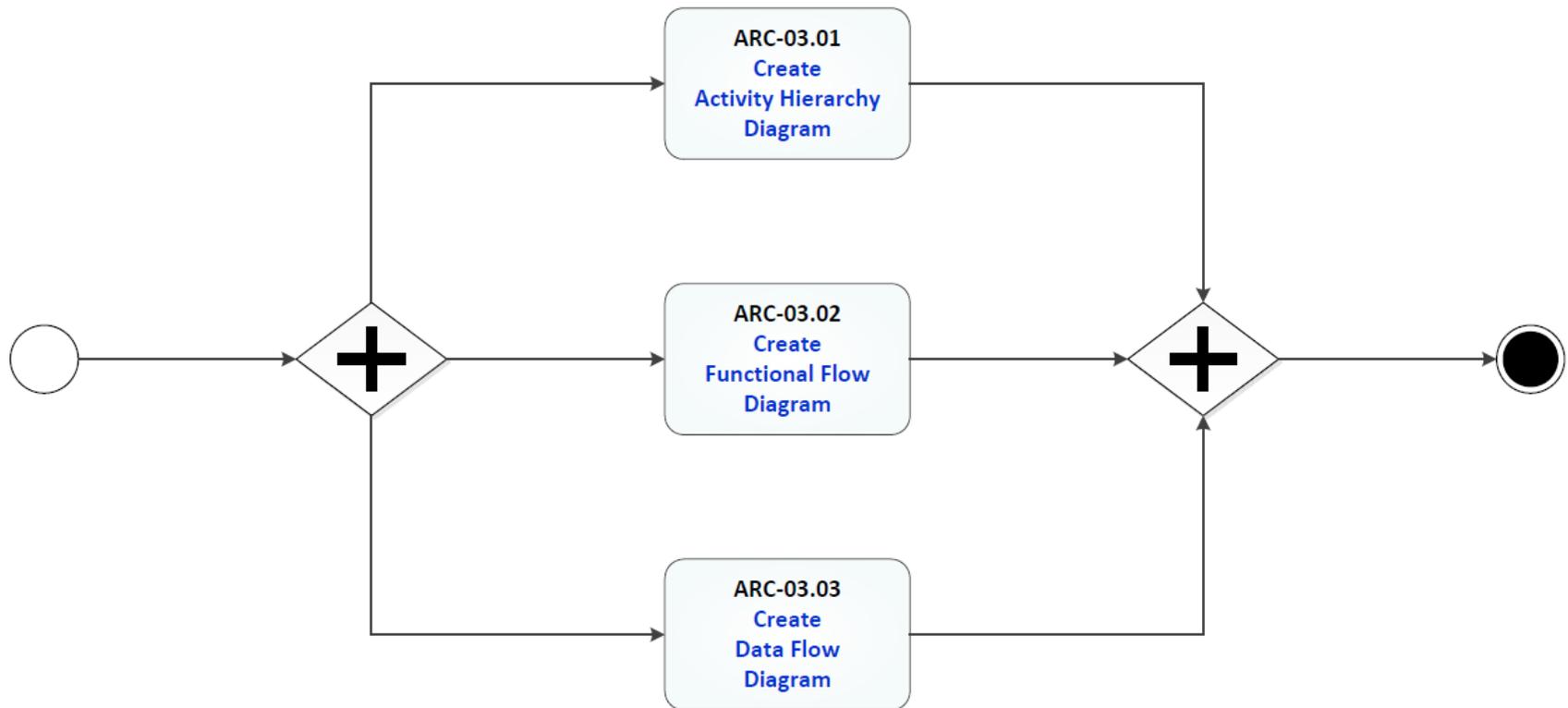


Product Architecture: ARC-01 Model Domain Concepts



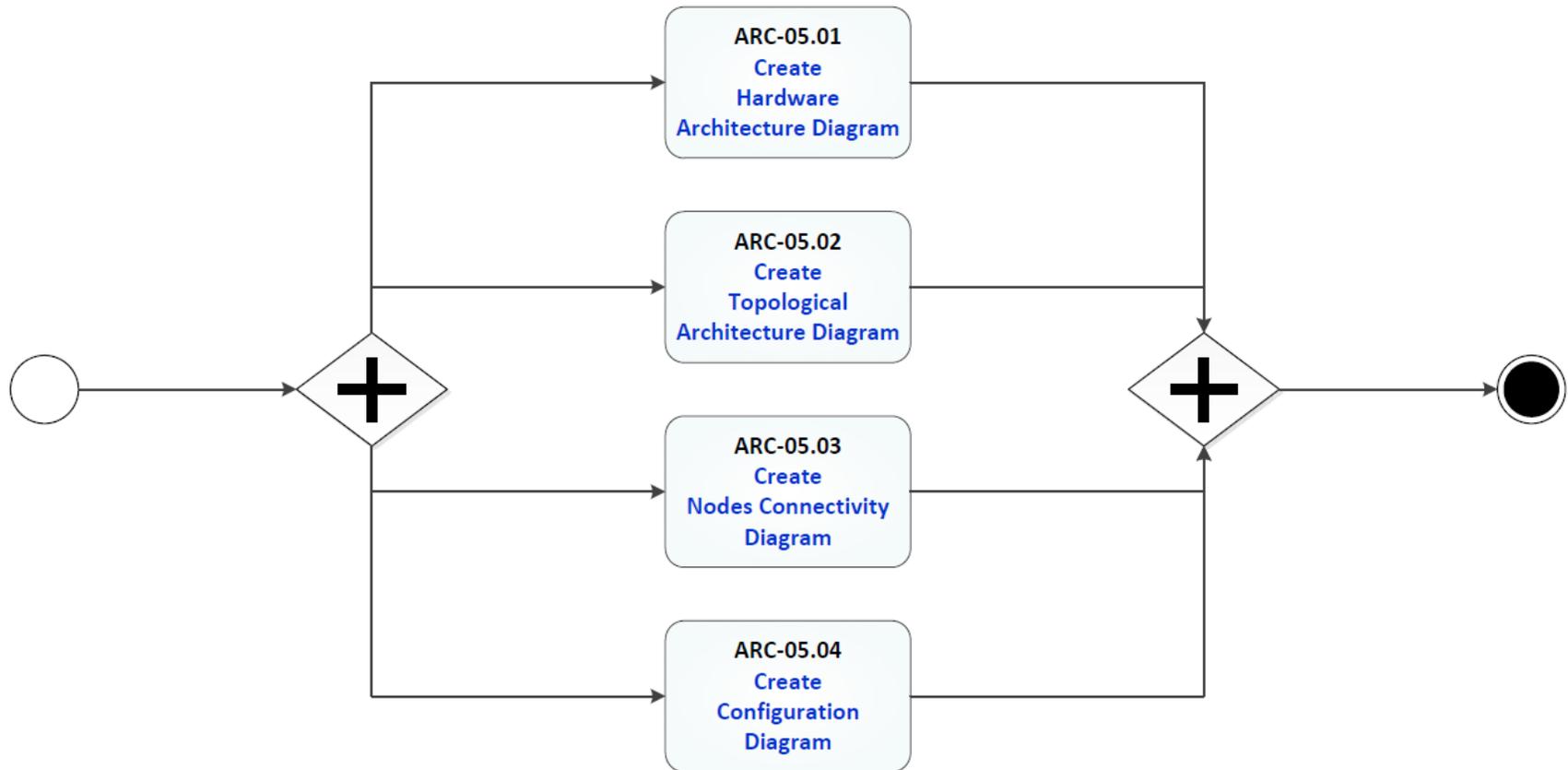
Product Architecture: ARC-03 Model Functional Architecture

Solution Architect

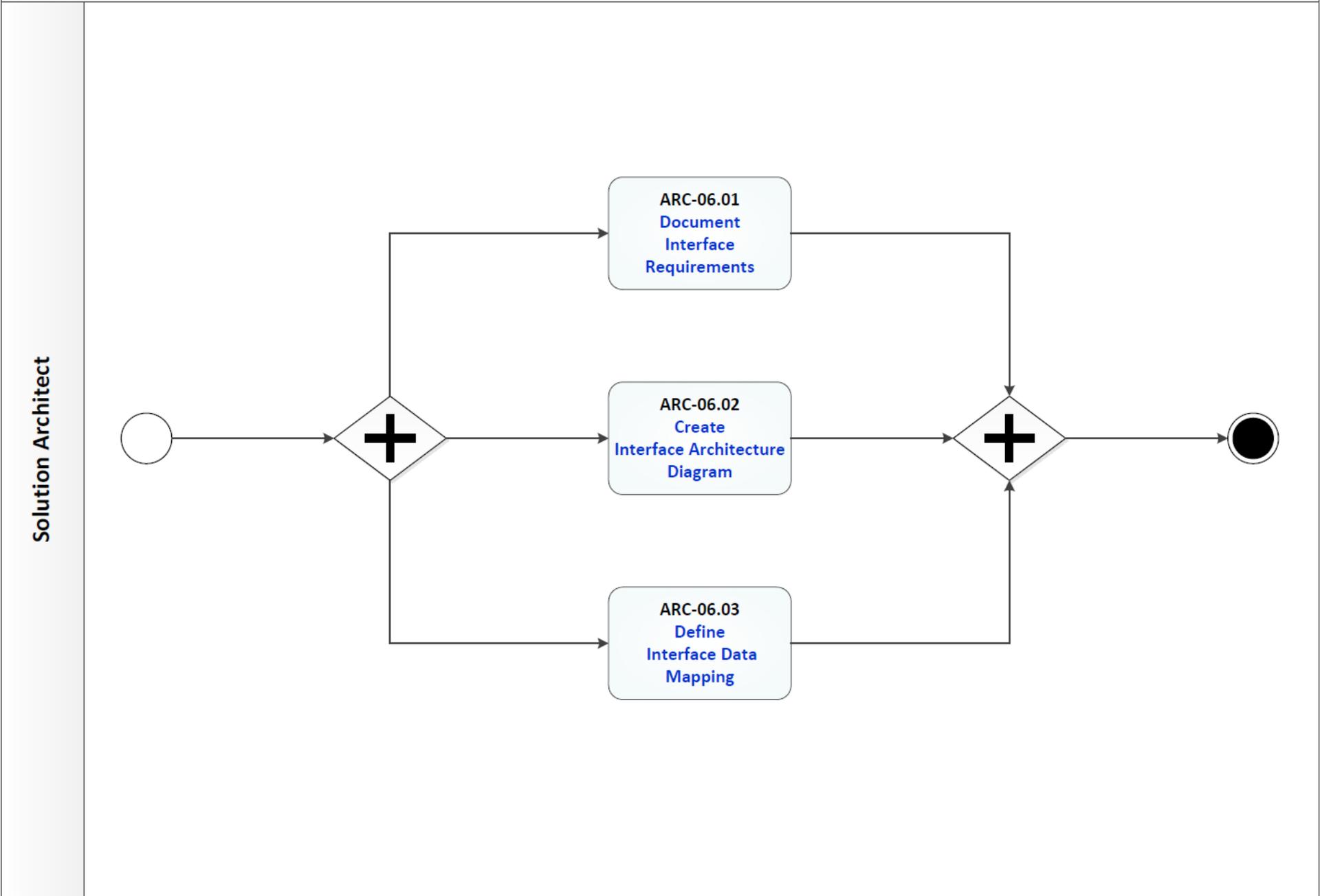


Product Architecture: ARC-05 Model Physical Architecture

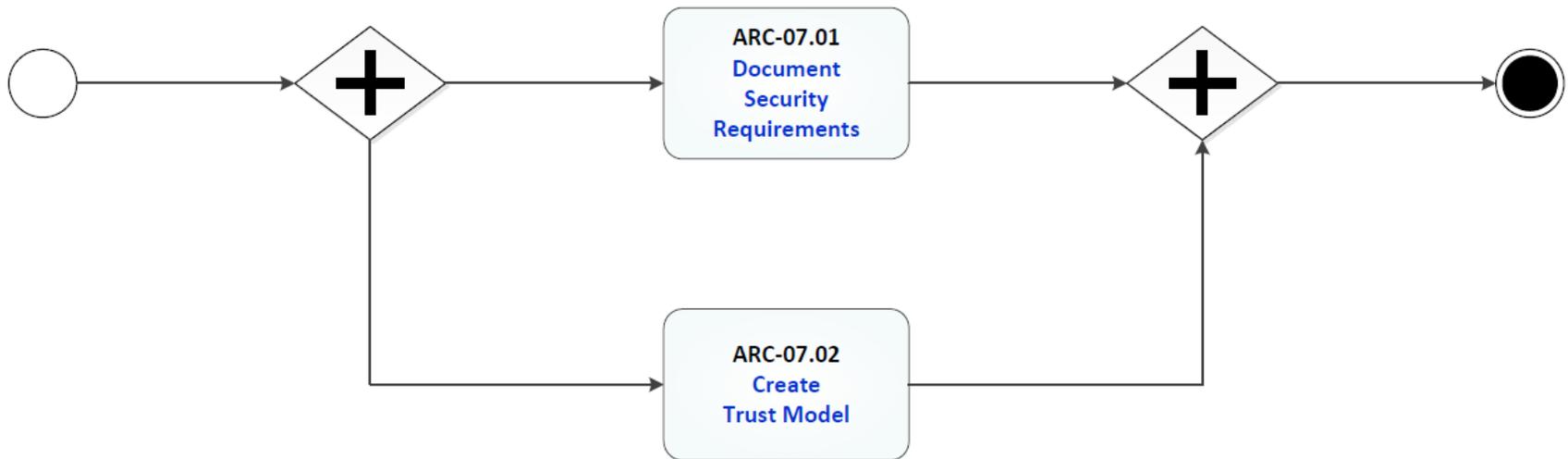
Solution Architect



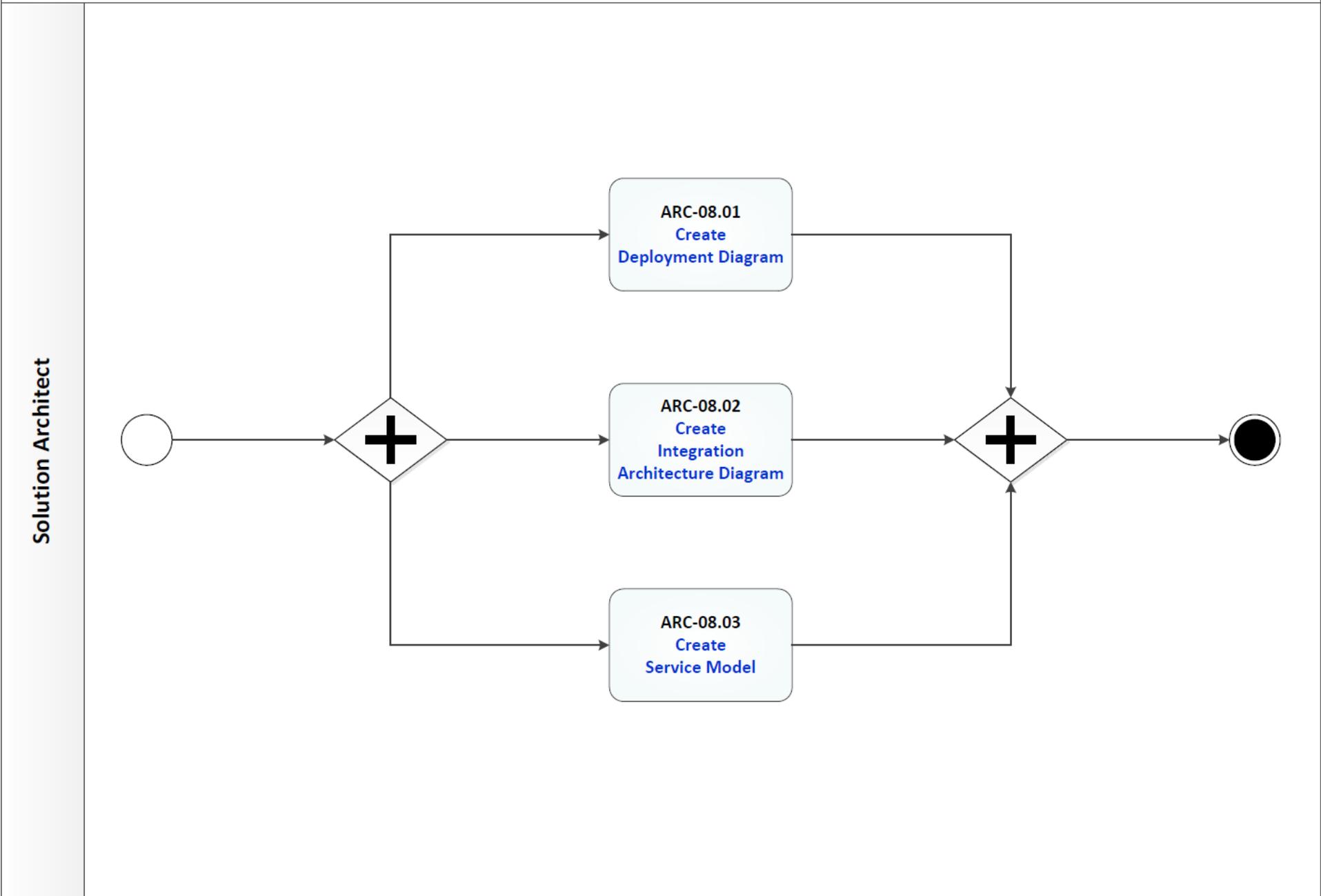
Product Architecture: ARC-06 Model Interface Architecture



Solution Architect



Product Architecture: ARC-08 Model Operational Architecture



Process: Product Architecture

Overview: The process map for Product Architecture cycles through the following process and review activities:

- ARC-01 Model Domain Concepts
 - ARC-01.01 Create Conceptual Business Diagram
 - ARC-01.02 Create Domain Glossary of Terms
- ARC-02 Model Logical Architecture
- ARC-03 Model Functional Architecture
 - ARC-03.01 Create Activity Hierarchy Diagram
 - ARC-03.02 Create Functional Flow Diagram
 - ARC-03.03 Create Data Flow Diagram
- ARC-04 Model Data Architecture
- ARC-05 Model Physical Architecture
 - ARC-05.01 Create Hardware Architecture Diagram
 - ARC-05.02 Create Topological Architecture Diagram
 - ARC-05.03 Create Nodes Connectivity Diagram
 - ARC-05.04 Create Configuration Diagram
- ARC-06 Model Interface Architecture
 - ARC-06.01 Document Interface Requirements
 - ARC-06.02 Create Interface Architecture Diagram
 - ARC-06.03 Define Interface Data Mapping
- ARC-07 Model Security Architecture
 - ARC-07.01 Document Security Requirements
 - ARC-07.02 Create Trust Model
- ARC-08 Model Operational Architecture
 - ARC-08.01 Create Deployment Diagram
 - ARC-08.02 Create Integration Architecture Diagram
 - ARC-08.03 Create Service Model
- ARC-09 Document Product Architecture
- ARC-10 Model Test Architecture

Product Architecture Description and Goals

Description

This process defines the conceptual, logical and physical models needed to capture the functional elements and behavior of the product and how these are arranged into system components and the interactions among these components. It influences how functions are realized, how components are reused and standardized, how development work is divided up, and how components are envisioned to work together.

Goals

Specific goals include development of:

- Domain Concepts
- Logical Architecture
- Functional Architecture
- Data Architecture
- Physical Architecture
- Interface Architecture
- Security Architecture
- Operational Architecture
- Product & Test Architecture

Product Architecture RACI Information

The following describes the RACI information for this process:

ARC-01.01 Create Conceptual Business Diagram

Responsible Role: Solution Architect

Accountable Role: Application and Data Architecture Service Director

Consulted Role: None Listed

Informed Role: None Listed

ARC-01.02 Create Domain Glossary of Terms

Responsible Role: Solution Architect

Accountable Role: Application and Data Architecture Service Director

Consulted Role: None Listed

Informed Role: None Listed

ARC-02 Model Logical Architecture

Responsible Role: Data Analyst

Accountable Role: Application and Data Architecture Service Director

Consulted Role: None Listed

Informed Role: None Listed

ARC-03.01 Create Activity Hierarchy Diagram

Responsible Role: Solution Architect

Accountable Role: Application and Data Architecture Service Director

Consulted Role: None Listed

Informed Role: None Listed

ARC-03.02 Create Functional Flow Diagram

Responsible Role: Solution Architect

Accountable Role: Application and Data Architecture Service Director

Consulted Role: None Listed

Informed Role: None Listed

ARC-03.03 Create Data Flow Diagram

Responsible Role: Solution Architect

Accountable Role: Application and Data Architecture Service Director

Consulted Role: None Listed

Informed Role: None Listed

ARC-04 Model Data Architecture

Responsible Role: Data Analyst

Accountable Role: Application and Data Architecture Service Director

Consulted Role: None Listed

Informed Role: None Listed

ARC-05.01 Create Hardware Architecture Diagram

Responsible Role: Solution Architect

Accountable Role: Application and Data Architecture Service Director

Consulted Role: None Listed

Informed Role: None Listed

ARC-05.02 Create Topological Architecture Diagram

Responsible Role: Solution Architect

Accountable Role: Application and Data Architecture Service Director

Consulted Role: None Listed

Informed Role: None Listed

ARC-05.03 Create Nodes Connectivity Diagram

Responsible Role: Solution Architect

Accountable Role: Application and Data Architecture Service Director

Consulted Role: None Listed

Informed Role: None Listed

ARC-05.04 Create Configuration Diagram

Responsible Role: Solution Architect

Accountable Role: Application and Data Architecture Service Director

Consulted Role: None Listed

Informed Role: None Listed

ARC-06.01 Document Interface Requirements

Responsible Role: Solution Architect

Accountable Role: Application and Data Architecture Service Director

Consulted Role: None Listed

Informed Role: None Listed

ARC-06.02 Create Interface Architecture Diagram

Responsible Role: Solution Architect

Accountable Role: Application and Data Architecture Service Director

Consulted Role: None Listed

Informed Role: None Listed

ARC-06.03 Define Interface Data Mapping

Responsible Role: Solution Architect

Accountable Role: Application and Data Architecture Service Director

Consulted Role: None Listed

Informed Role: None Listed

ARC-07.01 Document Security Requirements

Responsible Role: Solution Architect

Accountable Role: Application and Data Architecture Service Director

Consulted Role: Compliance, Advising, and Security Engineering (CASE) Security Specialist;
Information Security Officer

Informed Role: None Listed

ARC-07.02 Create Trust Model

Responsible Role: Solution Architect

Accountable Role: Application and Data Architecture Service Director

Consulted Role: None Listed

Informed Role: None Listed

ARC-08.01 Create Deployment Diagram

Responsible Role: Solution Architect

Accountable Role: Application and Data Architecture Service Director

Consulted Role: None Listed

Informed Role: None Listed

ARC-08.02 Create Integration Architecture Diagram

Responsible Role: Solution Architect

Accountable Role: Application and Data Architecture Service Director

Consulted Role: None Listed

Informed Role: None Listed

ARC-08.03 Create Service Model

Responsible Role: Solution Architect

Accountable Role: Application and Data Architecture Service Director

Consulted Role: None Listed

Informed Role: None Listed

ARC-09 Document Product Architecture

Responsible Role: Solution Architect

Accountable Role: Application and Data Architecture Service Director

Consulted Role: None Listed

Informed Role: None Listed

ARC-10 Model Test Architecture

Responsible Role: Solution Architect

Accountable Role: Application and Data Architecture Service Director

Consulted Role: None Listed

Informed Role: None Listed

Product Architecture Associated Artifacts Information

Associated Artifacts information (including hyperlinks) for this process includes:

Business Use Case Template

Requirements Specification Document Template

Product Architecture Tools and Web Sites Information

The Tools and Web Sites associated with this process (including hyperlinks) include:

Office of Cyber Security (OCS) Portal

Rational Requirements DOORS Next Generation

Rational Software Architect

Rational Team Concert (Change/Configuration Management)

VA EA Home

Product Architecture Standards Information

Standards associated with this process (including hyperlinks) include:

Release Requirements User Stories Decision Tree

VA Directive 6500, Managing Information Security Risk: VA Information Security Program

VA Directive 6518, Enterprise Information Management

VA EA Enterprise Technical Architecture (ETA) Compliance Criteria

VA Handbook 6500, Risk Management Framework for VA Information Systems - Tier 3: VA Information Security Program

Product Architecture Process

Process Activity Name: ARC-01 Model Domain Concepts

Previous Activities

Process Begins

Next Activities

ARC-01.01 Create Conceptual Business Diagram

And

ARC-01.02 Create Domain Glossary of Terms

Description

The sub-process Model Domain Concepts Map cycles through the following independent activities:

- Create Conceptual Business Diagrams
- Create Domain Glossary of Terms

Process Activity Name: ARC-01.01 Create Conceptual Business Diagram

Concurrent Activities

ARC-01.02 Create Domain Glossary of Terms

Previous Activities

ARC-01 Model Domain Concepts

Next Activities

ARC-02 Model Logical Architecture

Description

The Solution Architect creates the Conceptual Business Diagram to define a business-centric view of entities and their relationships.

Input

Business Case Document

Compliance Epics

Compliance Sub-Epics

Compliance User Stories

Output

Conceptual Business Diagram

Associated Artifacts

None Listed

Responsible Role

Solution Architect

Accountable Role

Application and Data Architecture Service Director

Consulted Role

None Listed

Informed Role

None Listed

Tools and Websites

Rational Requirements DOORS Next Generation

Rational Team Concert (Change/Configuration Management)

Rational Software Architect

Standards

None Listed

More Info

None Listed

Process Activity Name: ARC-01.02 Create Domain Glossary of Terms**Concurrent Activities**

ARC-01.01 Create Conceptual Business Diagram

Previous Activities

ARC-01 Model Domain Concepts

Next Activities

ARC-02 Model Logical Architecture

Description

The Solution Architect creates the Domain Glossary of Terms to document all definitions needed to understand terms and acronyms used.

Input

Business Case Document

Compliance Epics

Compliance Sub-Epics

Compliance User Stories

Output

Domain Glossary of Terms

Associated Artifacts

None Listed

Responsible Role

Solution Architect

Accountable Role

Application and Data Architecture Service Director

Consulted Role

None Listed

Informed Role

None Listed

Tools and Websites

Rational Requirements DOORS Next Generation

Rational Team Concert (Change/Configuration Management)

Rational Software Architect

Standards

None Listed

More Info

None Listed

Process Activity Name: ARC-02 Model Logical Architecture**Previous Activities**

ARC-01 Model Domain Concepts

Next Activities

ARC-03 Model Functional Architecture

Description

The Data Analyst documents the logical and process views representing domain concepts. The Logical Architecture consists of diagrams that fully identify entity types, assigns data attributes defining those entities and their relationships. Logical modeling drives the direction of the physical database design: entity relationship diagrams and process models are used to ascertain the business requirements have been fully defined or if more analysis is required.

Input

Business Case Document

Compliance Epics

Compliance Sub-Epics

Compliance User Stories

Conceptual Business Diagrams

Output

Business Process Diagram

Associated Artifacts

None Listed

Responsible Role

Data Analyst

Accountable Role

Application and Data Architecture Service Director

Consulted Role

None Listed

Informed Role

None Listed

Tools and Websites

Rational Requirements DOORS Next Generation

Rational Team Concert (Change/Configuration Management)

Rational Software Architect

Standards

None Listed

More Info

None Listed

Process Activity Name: ARC-03 Model Functional Architecture

Previous Activities

ARC-02 Model Logical Architecture

Next Activities

ARC-03.01 Create Activity Hierarchy Diagram

And

ARC-03.02 Create Functional Flow Diagram

And

ARC-03.03 Create Data Flow Diagram

Description

The sub-process map Model Functional Architecture Map cycles through the following independent activities:

- Create Activity Hierarchy Diagram
- Create Functional Flow Diagram
- Create Data Flow Diagram

Process Activity Name: ARC-03.01 Create Activity Hierarchy Diagram

Concurrent Activities

ARC-03.02 Create Functional Flow Diagram

And

ARC-03.03 Create Data Flow Diagram

Previous Activities

ARC-03 Model Functional Architecture

Next Activities

ARC-04 Model Data Architecture

Description

The Solution Architect creates the Activity Hierarchy Diagram to describe the hierarchical decomposition of events within the functional architecture components and identify the events that form the basis of the existing major system.

Input

Business Case Document

Compliance Epics

Compliance Sub-Epics

Compliance User Stories

Conceptual Business Diagrams

Logical Data Model

Output

Activity Hierarchy Diagram

Associated Artifacts

None Listed

Responsible Role

Solution Architect

Accountable Role

Application and Data Architecture Service Director

Consulted Role

None Listed

Informed Role

None Listed

Tools and Websites

Rational Requirements DOORS Next Generation

Rational Team Concert (Change/Configuration Management)

Rational Software Architect

Standards

None Listed

More Info

None Listed

Process Activity Name: ARC-03.02 Create Functional Flow Diagram**Concurrent Activities**

ARC-03.01 Create Activity Hierarchy Diagram

And

ARC-03.03 Create Data Flow Diagram

Previous Activities

ARC-03 Model Functional Architecture

Next Activities

ARC-04 Model Data Architecture

Description

The Solution Architect creates the Functional Flow Diagram to document a logical flow of the functional decomposition and events of components.

Input

Business Case Document

Compliance Epics

Compliance Sub-Epics

Compliance User Stories

Logical Data Model

Output

Functional Flow Diagram

Associated Artifacts

None Listed

Responsible Role

Solution Architect

Accountable Role

Application and Data Architecture Service Director

Consulted Role

None Listed

Informed Role

None Listed

Tools and Websites

Rational Requirements DOORS Next Generation

Rational Team Concert (Change/Configuration Management)

Rational Software Architect

Standards

None Listed

More Info

None Listed

Process Activity Name: ARC-03.03 Create Data Flow Diagram**Concurrent Activities**

ARC-03.01 Create Activity Hierarchy Diagram

And

ARC-03.02 Create Functional Flow Diagram

Previous Activities

ARC-03 Model Functional Architecture

Next Activities

ARC-04 Model Data Architecture

Description

The Solution Architect creates the Data Flow Diagram to define the behavioral and structural flow of data within the functional architecture components.

Input

Business Case Document

Compliance Epics

Compliance Sub-Epics

Compliance User Stories

Logical Data Model

Output

Data Flow Diagram

Associated Artifacts

None Listed

Responsible Role

Solution Architect

Accountable Role

Application and Data Architecture Service Director

Consulted Role

None Listed

Informed Role

None Listed

Tools and Websites

Rational Requirements DOORS Next Generation

Rational Team Concert (Change/Configuration Management)

Rational Software Architect

Standards

None Listed

More Info

None Listed

Process Activity Name: ARC-04 Model Data Architecture

Previous Activities

ARC-03.01 Create Activity Hierarchy Diagram

Or

ARC-03.02 Create Functional Flow Diagram

Or

ARC-03.03 Create Data Flow Diagram

Next Activities

ARC-05 Model Physical Architecture

Description

The Data Analyst creates the Data Definition to capture new data definitions and to describe the limitations and restrictions placed on the databases.

Input

Business Case Document

Compliance Epics

Compliance Sub-Epics

Compliance User Stories

Functional Model

Logical Data Model

Output

Data Definition

Associated Artifacts

None Listed

Responsible Role

Data Analyst

Accountable Role

Application and Data Architecture Service Director

Consulted Role

None Listed

Informed Role

None Listed

Tools and Websites

Rational Requirements DOORS Next Generation

Rational Team Concert (Change/Configuration Management)

Rational Software Architect

Standards

VA Directive 6518, Enterprise Information Management

More Info

None Listed

Process Activity Name: ARC-05 Model Physical Architecture**Previous Activities**

ARC-04 Model Data Architecture

Next Activities

ARC-05.01 Create Hardware Architecture Diagram

And

ARC-05.02 Create Topological Architecture Diagram

And

ARC-05.03 Create Nodes Connectivity Diagram

And

ARC-05.04 Create Configuration Diagram

Description

The sub-process map Model Physical Architecture Map cycles through the following independent activities:

- Create Hardware Architecture Diagram
- Create Topological Architecture Diagram
- Create Nodes Connectivity Diagram
- Create Configuration Diagram

Process Activity Name: ARC-05.01 Create Hardware Architecture Diagram

Concurrent Activities

ARC-05.02 Create Topological Architecture Diagram

And

ARC-05.03 Create Nodes Connectivity Diagram

And

ARC-05.04 Create Configuration Diagram

Previous Activities

ARC-05 Model Physical Architecture

Next Activities

ARC-06 Model Interface Architecture

Description

The Solution Architect creates the Hardware Architecture Diagram to specify the dynamic and hierarchical decomposition of the physical resources (hardware components) that comprise the system.

Input

Business Case Document

Compliance Epics

Compliance Sub-Epics

Compliance User Stories

Functional Model

Logical Data Model

Output

Hardware Architecture Diagram

Associated Artifacts

None Listed

Responsible Role

Solution Architect

Accountable Role

Application and Data Architecture Service Director

Consulted Role

None Listed

Informed Role

None Listed

Tools and Websites

Rational Requirements DOORS Next Generation

Rational Team Concert (Change/Configuration Management)

Rational Software Architect

Standards

None Listed

More Info

None Listed

Process Activity Name: ARC-05.02 Create Topological Architecture Diagram

Concurrent Activities

ARC-05.01 Create Hardware Architecture Diagram

And

ARC-05.03 Create Nodes Connectivity Diagram

And

ARC-05.04 Create Configuration Diagram

Previous Activities

ARC-05 Model Physical Architecture

Next Activities

ARC-06 Model Interface Architecture

Description

The Solution Architect creates the Topological Architecture Diagram which visually describes how the functional architecture is distributed geographically and helps to understand the details of the relationship between components.

Input

Business Case Document

Compliance Epics

Compliance Sub-Epics

Compliance User Stories

Functional Model

Logical Data Model

Output

Topological Architecture Diagram

Associated Artifacts

None Listed

Responsible Role

Solution Architect

Accountable Role

Application and Data Architecture Service Director

Consulted Role

None Listed

Informed Role

None Listed

Tools and Websites

Rational Requirements DOORS Next Generation

Rational Team Concert (Change/Configuration Management)

Rational Software Architect

Standards

None Listed

More Info

None Listed

Process Activity Name: ARC-05.03 Create Nodes Connectivity Diagram

Concurrent Activities

ARC-05.01 Create Hardware Architecture Diagram

And

ARC-05.02 Create Topological Architecture Diagram

And

ARC-05.04 Create Configuration Diagram

Previous Activities

ARC-05 Model Physical Architecture

Next Activities

ARC-06 Model Interface Architecture

Description

The Solution Architect creates the Nodes Connectivity Diagram to illustrate the communication exchange required between components of the software as tasks and the operations that are executed.

Input

Business Case Document

Compliance Epics

Compliance Sub-Epics

Compliance User Stories

Functional Model

Logical Data Model

Output

Nodes Connectivity Diagram

Associated Artifacts

None Listed

Responsible Role

Solution Architect

Accountable Role

Application and Data Architecture Service Director

Consulted Role

None Listed

Informed Role

None Listed

Tools and Websites

Rational Requirements DOORS Next Generation

Rational Team Concert (Change/Configuration Management)

Rational Software Architect

Standards

None Listed

More Info

None Listed

Process Activity Name: ARC-05.04 Create Configuration Diagram**Concurrent Activities**

ARC-05.01 Create Hardware Architecture Diagram

And

ARC-05.02 Create Topological Architecture Diagram

And

ARC-05.03 Create Nodes Connectivity Diagram

Previous Activities

ARC-05 Model Physical Architecture

Next Activities

ARC-06 Model Interface Architecture

Description

The Solution Architect creates the Configuration Diagram. The Configuration Diagram provides the configuration views of the hierarchical decomposition of the functional architecture components, relates the functional architecture to the logical components, and identifies the functions that form the basis of the existing major system.

Input

Business Case Document

Compliance Epics

Compliance Sub-Epics

Compliance User Stories

Functional Model

Logical Data Model

Output

Configuration Diagram

Associated Artifacts

None Listed

Responsible Role

Solution Architect

Accountable Role

Application and Data Architecture Service Director

Consulted Role

None Listed

Informed Role

None Listed

Tools and Websites

Rational Requirements DOORS Next Generation

Rational Team Concert (Change/Configuration Management)

Rational Software Architect

Standards

None Listed

More Info

None Listed

Process Activity Name: ARC-06 Model Interface Architecture**Previous Activities**

ARC-05.01 Create Hardware Architecture Diagram

Or

ARC-05.02 Create Topological Architecture Diagram

Or

ARC-05.03 Create Nodes Connectivity Diagram

Or

ARC-05.04 Create Configuration Diagram

Next Activities

ARC-06.01 Document Interface Requirements

And

ARC-06.02 Create Interface Architecture Diagram

And

ARC-06.03 Define Interface Data Mapping

Description

The sub-process map Model Interface Architecture Map cycles through the following independent activities:

- Document Interface Requirements
- Create Interface Architecture Diagram
- Define Interface Data Mapping

Process Activity Name: ARC-06.01 Document Interface Requirements

Concurrent Activities

ARC-06.02 Create Interface Architecture Diagram

And

ARC-06.03 Define Interface Data Mapping

Previous Activities

ARC-06 Model Interface Architecture

Next Activities

ARC-07 Model Security Architecture

Description

The Solution Architect documents the interface control information and incorporates this into the system design to specify the critical parameters of all inputs into and outputs from the software item. This includes target systems, external interfaces, and source systems.

Input

Business Case Document

Epics

Sub-Epics

User Stories

Output

Updated Epics

Updated Sub-Epics

Updated User Stories

Associated Artifacts

None Listed

Responsible Role

Solution Architect

Accountable Role

Application and Data Architecture Service Director

Consulted Role

None Listed

Informed Role

None Listed

Tools and Websites

Rational Requirements DOORS Next Generation

Rational Team Concert (Change/Configuration Management)

Rational Software Architect

Standards

None Listed

More Info

None Listed

Process Activity Name: ARC-06.02 Create Interface Architecture Diagram**Concurrent Activities**

ARC-06.01 Document Interface Requirements

And

ARC-06.03 Define Interface Data Mapping

Previous Activities

ARC-06 Model Interface Architecture

Next Activities

ARC-07 Model Security Architecture

Description

The Solution Architect creates the Interface Architecture Diagram which illustrates the primary flow of content between the databases and the users and the communication procedures that are used and that take place between them. This diagram activity drives the user interface design activity.

Input

Business Case Document

Compliance Epics

Compliance Sub-Epics
Compliance User Stories

Output

Interface Architecture Diagram

Associated Artifacts

None Listed

Responsible Role

Solution Architect

Accountable Role

Application and Data Architecture Service Director

Consulted Role

None Listed

Informed Role

None Listed

Tools and Websites

Rational Requirements DOORS Next Generation
Rational Team Concert (Change/Configuration Management)
Rational Software Architect

Standards

None Listed

More Info

None Listed

Process Activity Name: ARC-06.03 Define Interface Data Mapping

Concurrent Activities

ARC-06.01 Document Interface Requirements
And
ARC-06.02 Create Interface Architecture Diagram

Previous Activities

ARC-06 Model Interface Architecture

Next Activities

ARC-07 Model Security Architecture

Description

The Solution Architect defines the Interface Data Mapping and incorporates this in the system design capture in Epics, Sub-Epics and User Stories to describe interfaces with other applications including those of other operational capabilities.

Input

Business Case Document

Compliance Epics

Compliance Sub-Epics

Compliance User Stories

Output

Updated Epics

Updated Sub-Epics

Updated User Stories

Associated Artifacts

None Listed

Responsible Role

Solution Architect

Accountable Role

Application and Data Architecture Service Director

Consulted Role

None Listed

Informed Role

None Listed

Tools and Websites

Rational Requirements DOORS Next Generation

Rational Team Concert (Change/Configuration Management)

Rational Software Architect

Standards

None Listed

More Info

None Listed

Process Activity Name: ARC-07 Model Security Architecture

Previous Activities

ARC-06.01 Document Interface Requirements

Or

ARC-06.02 Create Interface Architecture Diagram

Or

ARC-06.03 Define Interface Data Mapping

Next Activities

ARC-07.01 Document Security Requirements

And

ARC-07.02 Create Trust Model

Description

The sub-process map Model Security Architecture Map cycles through the following independent activities:

- Document Security Requirements
- Create Trust Model

Process Activity Name: ARC-07.01 Document Security Requirements

Concurrent Activities

ARC-07.02 Create Trust Model

Previous Activities

ARC-07 Model Security Architecture

Next Activities

ARC-08 Model Operational Architecture

Description

The Solution Architect consults the assigned Information Security Officer (ISO) and Compliance, Advising and Security Engineering (CASE) Security Specialist in the development of the security requirements. The security requirements include, but are not limited to, Authentication and Authorization, Confidentiality and Integrity, Non-Repudiation, Data Exchange Requirements, Sensitivity of Data, Delivery Assurances, Confirmations, Logging and Traceability.

Input

Business Case Document

Compliance Epics

Compliance Sub-Epics

Compliance User Stories

Output

Updated Epics

Updated Sub-Epics

Updated User Stories

Associated Artifacts

None Listed

Responsible Role

Solution Architect

Accountable Role

Application and Data Architecture Service Director

Consulted Role

Compliance, Advising, and Security Engineering (CASE) Security Specialist; Information Security Officer

Informed Role

None Listed

Tools and Websites

Office of Cyber Security (OCS) Portal

Rational Requirements DOORS Next Generation

Rational Team Concert (Change/Configuration Management)

VA EA Home

Rational Software Architect

Standards

VA Directive 6500, Managing Information Security Risk: VA Information Security Program

VA EA Enterprise Technical Architecture (ETA) Compliance Criteria

VA Handbook 6500, Risk Management Framework for VA Information Systems - Tier 3: VA Information Security Program

More Info

Contact the Lead CASE Security Specialist using the VHA10P2OIAHCSRREQUESTS@va.gov mail group. Contact the Director of Field Security Service using the VA FSO ISO Appointments mail group.

The VA EA Enterprise Technical Architecture Compliance Criteria document establishes minimum Information Security compliance criteria for a product, product release, or service.

Process Activity Name: ARC-07.02 Create Trust Model

Concurrent Activities

ARC-07.01 Document Security Requirements

Previous Activities

ARC-07 Model Security Architecture

Next Activities

ARC-08 Model Operational Architecture

Description

The Solution Architect creates the Trust Model and assigns the trust ratings. Some components may trust others for all kinds of access, i.e. reading and writing data elements, yet other components may not allow any remote access to their data.

Input

Business Case Document

Compliance Epics

Compliance Sub-Epics

Compliance User Stories

Functional Model

Logical Data Model

Physical Data Model

Output

Trust Model

Associated Artifacts

None Listed

Responsible Role

Solution Architect

Accountable Role

Application and Data Architecture Service Director

Consulted Role

None Listed

Informed Role

None Listed

Tools and Websites

Rational Requirements DOORS Next Generation

Rational Team Concert (Change/Configuration Management)

Rational Software Architect

Standards

None Listed

More Info

None Listed

Process Activity Name: ARC-08 Model Operational Architecture

Previous Activities

ARC-07.01 Document Security Requirements

Or

ARC-07.02 Create Trust Model

Next Activities

ARC-08.01 Create Deployment Diagram

And

ARC-08.02 Create Integration Architecture Diagram

And

ARC-08.03 Create Service Model

Description

The sub-process map Model Operational Architecture Map cycles through the following independent activities:

- Create Deployment Diagram
- Create Integration Architecture Diagram
- Create Service Model

Process Activity Name: ARC-08.01 Create Deployment Diagram

Concurrent Activities

ARC-08.02 Create Integration Architecture Diagram

And

ARC-08.03 Create Service Model

Previous Activities

ARC-08 Model Operational Architecture

Next Activities

ARC-09 Document Product Architecture

Description

The Solution Architect creates the Deployment Diagram. The Deployment Diagram documents the major hardware/software components supporting operations and their relationship to other components, including the functional architecture allocated to the physical architecture, derived input/output, technology and system-wide, trade off, and qualification requirements for each component.

Input

Business Case Document

Data Flow Diagram

Epics

Functional Flow Diagram

Interface Architecture Diagram

Security Architecture Diagram

Sub-Epics

User Stories

Output

Deployment Diagram

Associated Artifacts

None Listed

Responsible Role

Solution Architect

Accountable Role

Application and Data Architecture Service Director

Consulted Role

None Listed

Informed Role

None Listed

Tools and Websites

Rational Requirements DOORS Next Generation

Rational Team Concert (Change/Configuration Management)

Rational Software Architect

Standards

None Listed

More Info

None Listed

Process Activity Name: ARC-08.02 Create Integration Architecture Diagram

Concurrent Activities

ARC-08.01 Create Deployment Diagram

And

ARC-08.03 Create Service Model

Previous Activities

ARC-08 Model Operational Architecture

Next Activities

ARC-09 Document Product Architecture

Description

The Solution Architect creates the Integration Architecture Diagram that provides a pictorial view of the product's integration architecture with other entities. The integration points considered could be, but not limited to, integration with other products, external systems, databases, servers, intermediary interfaces, etc. It also documents the communication between the entities documented.

Input

Business Case Document

Compliance Epics

Compliance Sub-Epics

Compliance User Stories

Data Flow Diagram

Functional Flow Diagram

Interface Architecture Diagram

Security Architecture Diagram

Output

Integration Architecture Diagram

Associated Artifacts

None Listed

Responsible Role

Solution Architect

Accountable Role

Application and Data Architecture Service Director

Consulted Role

None Listed

Informed Role

None Listed

Tools and Websites

Rational Requirements DOORS Next Generation

Rational Team Concert (Change/Configuration Management)

Rational Software Architect

Standards

None Listed

More Info

None Listed

Process Activity Name: ARC-08.03 Create Service Model**Concurrent Activities**

ARC-08.01 Create Deployment Diagram

And

ARC-08.02 Create Integration Architecture Diagram

Previous Activities

ARC-08 Model Operational Architecture

Next Activities

ARC-09 Document Product Architecture

Description

The Solution Architect creates the Service Model which documents classes, details, and interfaces to build client and service applications.

Input

Business Case Document

Compliance Epics

Compliance Sub-Epics

Compliance User Stories

Data Flow Diagram

Functional Flow Diagram

Interface Architecture Diagram

Output

Service Model

Associated Artifacts

None Listed

Responsible Role

Solution Architect

Accountable Role

Application and Data Architecture Service Director

Consulted Role

None Listed

Informed Role

None Listed

Tools and Websites

Rational Requirements DOORS Next Generation

Rational Team Concert (Change/Configuration Management)

Rational Software Architect

Standards

None Listed

More Info

None Listed

Process Activity Name: ARC-09 Document Product Architecture

Previous Activities

ARC-08.01 Create Deployment Diagram

AND

ARC-08.02 Create Integration Architecture Diagram

AND

ARC-08.03 Create Service Model

Next Activities

ARC-10 Model Test Architecture

Description

The Solution Architect documents the product architecture models in the system design. The Solution Architect provides a textual narrative and explanation of each of the created models and diagrams, including Domain, Logical, Data and Physical models.

Input

Compliance Epics

Compliance Sub-Epics

Compliance User Stories

Domain Model

Interface Architecture Model

Logical Data Model

Operations Architecture Diagram

Physical Model

Security Architecture Diagram

Output

Updated Compliance Epics

Updated Compliance Sub-Epics

Updated Compliance User Stories

Associated Artifacts

None Listed

Responsible Role

Solution Architect

Accountable Role

Application and Data Architecture Service Director

Consulted Role

None Listed

Informed Role

None Listed

Tools and Websites

Rational Requirements DOORS Next Generation

Rational Team Concert (Change/Configuration Management)

Rational Software Architect

Standards

None Listed

More Info

None Listed

Process Activity Name: ARC-10 Model Test Architecture**Previous Activities**

ARC-09 Document Product Architecture

Next Activities

Process Ends

Description

The Solution Architect updates the System Design Document to model and incorporate the Test Architecture Diagram in order to illustrate the logical flow of product component testing activities and determine the candidate architecture's testability.

Input

Compliance Epics

Compliance Sub-Epics

Compliance User Stories

Data Architecture Model

Functional Model

Integration Architecture Model

Logical Data Model

Output

Updated Compliance Epics

Updated Compliance Sub-Epics

Updated Compliance User Stories

Associated Artifacts

None Listed

Responsible Role

Solution Architect

Accountable Role

Application and Data Architecture Service Director

Consulted Role

None Listed

Informed Role

None Listed

Tools and Websites

Rational Requirements DOORS Next Generation

Rational Team Concert (Change/Configuration Management)

Rational Software Architect

Standards

None Listed

More Info

None Listed

END OF PROCESS