TECHNICAL ARCHITECTURE

Template

Version 1.0 ● FEBRUARY 5, 2012

**Using This Template**

This and other PDM tools are available. All Sections are required to be addressed, however if a section or subsection is not needed, that section/subsection of the document can be marked as Not Applicable but an explanation must be provided as to why it does not apply. Please also reference the **Lessons Learned** section in the Appendix for additional information that may assist.

To create a deliverable from this template:

1. Delete the template title page (previous page) and this page.
2. Replace [bracketed text] on the cover page (next page) with your project and agency information.
3. Replace [bracketed text] in the tool header area at the top of page i (Contents page) with the same project and agency information as on the cover page.

Note: Please do not remove or modify content in the footer area.

1. Complete the entire template. Each section contains abbreviated instructions, shown in italics, and a content area. The content area is marked with a placeholder symbol (⇒) or with a table. Relevant text from other project deliverables may be pasted into content areas.

Note: Please do not remove the italicized instructions.

1. Update the table of contents by right-clicking and selecting “Update Field,” then “Update entire table.”

Project Delivery Methodology (PDM)

**TECHNICAL ARCHITECTURE**

**[Functional Office(s) Name]**

**[PROJECT NAME]**

|  |  |
| --- | --- |
| VERSION: [Version Number] | REVISION DATE: [Date] |

Approval of the Technical Architecture indicates an understanding of the purpose and content described in this deliverable. By signing this deliverable, each individual agrees with the content contained in this deliverable.

|  |  |  |  |
| --- | --- | --- | --- |
| **Approver Name** | **Title** | **Signature** | **Date** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Contents

[Section 1 DOCUMENT SCOPE 3](#_Toc316215972)

[Section 2 OVERALL TECHNICAL ARCHITECTURE 3](#_Toc316215973)

[2.1 System Architecture Context Diagram 3](#_Toc316215974)

[2.2 System Architecture Model 3](#_Toc316215975)

[2.2.1 Overall Architectural Considerations 3](#_Toc316215976)

[2.3 System Architecture Component Definitions 4](#_Toc316215977)

[2.3.1 System Architecture Component A 4](#_Toc316215978)

[*2.3.2* System Architecture Component B 4](#_Toc316215979)

[Section 3 SYSTEM ARCHITECTURE DESIGN 5](#_Toc316215980)

[3.1 System Architecture Component A 5](#_Toc316215981)

[3.1.1 Component Functions 5](#_Toc316215982)

[3.1.2 Technical Considerations 5](#_Toc316215983)

[3.1.3 Selected Product(s) 5](#_Toc316215984)

[3.1.4 Selection Rationale 5](#_Toc316215985)

[3.1.5 Architecture Risks 5](#_Toc316215986)

[3.2 System Architecture Component B 5](#_Toc316215987)

[Section 4 System Construction Environment 5](#_Toc316215988)

[4.1 Development Environment 5](#_Toc316215989)

[*4.1.1* Developer Workstation Configuration 5](#_Toc316215990)

[*4.1.2* Supporting Development Infrastructure Configuration 5](#_Toc316215991)

[*4.2* QA Environment 5](#_Toc316215992)

[*4.2.1* QA Workstation Configuration 5](#_Toc316215993)

[*4.2.2* Supporting QA Infrastructure Configuration 5](#_Toc316215994)

[*4.3* Acceptance Environment 5](#_Toc316215995)

[*4.3.1* Acceptance Workstation Configuration 6](#_Toc316215996)

[*4.3.2* Supporting Acceptance Infrastructure Configuration 6](#_Toc316215997)

# Section 1 DOCUMENT SCOPE

***Document Scope*** *describes the context and the goals of this document in a narrative.*

*Example:*

This document describes the Technical Architecture of the <XYZ> System that satisfies business requirements as documented in the Business Requirements Document, <Date>, and implements the functionality and satisfies technical, operational and transitional requirements described in the Functional Specification, <Date>.

The goal of this Technical Architecture is to define the technologies, products, and techniques necessary to develop and support the system, and to ensure that the system components are compatible and comply with the enterprise-wide standards and direction defined by the Agency.

This document will also:

Identify and explain the risks inherent in this Technical Architecture;

Define baseline sizing, archiving and performance requirements;

Identify the hardware and software specifications for the Development, Testing, QA and Production environments;

Define procedures for both data and code migration among the environments.

The Document Scope narrative also provides an overview of the efforts conducted to understand the existing technical environment and IT strategic direction and to determine how the system’s proposed technical architecture fits into them.

# Section 2 OVERALL TECHNICAL ARCHITECTURE

## 2.1 System Architecture Context Diagram

The **System Architecture Context Diagram** provides the “big picture” view of the system’s architecture, and puts it in context with the rest of the Performing Organization’s systems portfolio, illustrating how the system’s hardware and software platforms fit into the existing environment.

## System Architecture Model

The **System Architecture Model** represents the various architecture components that comprise the system, and shows their interrelationships.

### 2.2.1 Overall Architectural Considerations

*The* ***Overall Architectural Considerations*** *section defines how additional technical requirements have been addressed by the architecture. Representative items in this section may include:*

* *Security Strategy*
* *Performance requirements*
* *Accessibility*
* *Database sizing*
* *Transaction volumes*
* *Concurrent user*
* *Data import and export*
* *Data encryption and decryption*
* *Disaster recovery*

## 2.3 System Architecture Component Definitions

### System Architecture Component A

The **Architecture Component Definitions** section provides narrative describing and explaining each architecture component in the System Architecture Model, and identifies specific elements that comprise that component in this system. The following are examples of architecture components and elements:

|  |  |
| --- | --- |
| **Architecture Component** | **Component Elements** |
| Database Server | Server Hardware Configuration  Server Operating System  DBMS |
| Client Application | Development Tool  Online Help Tool  Client Characteristics |

### *2.3.2* System Architecture Component B

# Section 3 SYSTEM ARCHITECTURE DESIGN

*The* ***System Architecture Design*** *section provides detailed descriptions of each product implementing architecture components, and explains the rationale for product selection.*

## 3.1 System Architecture Component A

*For each* ***System Architecture Component*** *(identified in Section 2.3 above), the narrative describes specific* ***Component Functions****, requirements and other* ***Technical Considerations*** *that were used in the decision-making process, as well as any specific* ***Products*** *selected to implement this component. The* ***Selection Rationale*** *identifies any other products that may have been considered, and provides rationale for the decision.* ***Architecture Risks*** *identifies any potential risks associated with the architecture element.*

### 3.1.1 Component Functions

### 3.1.2 Technical Considerations

### 3.1.3 Selected Product(s)

### 3.1.4 Selection Rationale

### 3.1.5 Architecture Risks

## 3.2 System Architecture Component B

# Section 4 System Construction Environment

*The* ***System Construction Environment*** *section details the various environments necessary to enable system construction and testing.*

## 4.1 Development Environment

### *4.1.1* Developer Workstation Configuration

### *4.1.2* Supporting Development Infrastructure Configuration

## *4.2* QA Environment

### *4.2.1* QA Workstation Configuration

### *4.2.2* Supporting QA Infrastructure Configuration

## *4.3* Acceptance Environment

*For each environment necessary for system construction (****Development, QA*** *and* ***Acceptance****), provide detailed specifications for the* ***Workstation*** *and* ***Supporting Infrastructure*** *that will be used (including hardware, network and operating system requirements, all necessary installed packages and tools, and needed directory structures**that will be utilized to store all construction components).*

### *4.3.1* Acceptance Workstation Configuration

### *4.3.2* Supporting Acceptance Infrastructure Configuration