

ARCHITECTURE PLAN

**Version1.0**

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**VERSION HISTORY**

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1. **Introduction**
   1. **Purpose**

Architecture management plan define acts to be performed in architecting Electronic Contact book . It provides process to execute and approve architecture documents. The primary activities to be performed include:

* Define architectural driver
* Define Architecture for Electronic Contact book
* Document architecture and validate document
  1. **Intended Audiences**

|  |  |  |
| --- | --- | --- |
| No. | Readers | Reason for reading |
| **1** | Project Manager | Know schedule of architecture phase and update to project plan. |
| **2** | Mentor | Review and guideline for improvement architecture plan. |
| **3** | Architecture & Design Leader | Use this document to manage and update schedule in architecture phase. |
| **4** | Architecture & Design Engineer | Read document to know architecture plan and follow it to work in architecture phase. |

*Table 1. Intended Audiences*

* 1. **Glossary and Acronym**

|  |  |
| --- | --- |
| **Term or Acronym** | **Definition** |
| Ver | Version |
| ECB | Electronic Contact book |
| SRS | Software Requirement Specification |
| ADD | Architecture Driver Document |
| SAD | Software Architecture Driver |

*Table 2. Glossary and Acronym*

1. **Process**
   1. **Role and Responsibility**

|  |  |  |
| --- | --- | --- |
| No | Role | Responsibility |
| 1 | Project Manager | Control and monitor to ensure project schedule and process |
| 2 | Requirement engineer | Coordinating the gathering and tracking of the architecture drivers  Gather feedback about requirement |
| 3 | Architecture leader | Plan for architecture phase  Coordinating, tracking, experiments used to refine the design.  Decompose and assign task for architecture team member. |
| 4 | Architecture team member | Execute task which were assign  Discuss about ECB architecture  Feedback about problem of architecture and artifacts |
| 5 | Customer | Provide requirement and approval about ECB system architecture and document of development team. |

*Table 3. Roles and Responsibilities*

* 1. **Process**



*Figure 1. Architecture Process*

1. **Architecture Process Description**

To describe more detail for each phase, we use ETVX model:



* 1. **Stage 1**

|  |  |
| --- | --- |
| Entry criteria | * Requirements are collected from customer that it is analysis |
| Task | * The system stakeholders introduce about ECB project * Elicitation of the architectural drivers from the customer: In this project, research is an important task will help the requirement team and architecture team can gathering the functional requirements of system. Because, this is research project. |
| Validation | * Review and approved with customer about the functional requirements, quality attributes and constrains. |
| Exit criteria | * Architecture drivers are analyzed and specified * Architecture driver document Draft version. |

*Table 4: Discover Architecture Drivers*

Role and responsibility in this stage:

|  |  |  |
| --- | --- | --- |
| No. | Role | Responsibility |
| 1 | Project Manager | * Control and monitor to ensure project schedule |
| 2 | Requirement Engineer | * Provide system overview and specialty requirements need attention |
| 3 | Architecture leader | * Plan the workshop * Introduce and meeting overview |
| 4 | Architecture team member | * Identify operational descriptions, quality attribute requirements, business constraints and technical constraints |
| 5 | Customer | * Review and provide system overview and requirements |

*Table 5: Role and Responsibility in Stage 1*

* 1. **Stage 2**

|  |  |
| --- | --- |
| Entry criteria | * Requirement and architecture driver are baseline clearly**.** |
| Task | * Evaluate architecture drivers: The architecture leader phase must setup a meeting with the participation of customer, requirement team and architecture team to review and evaluate the architecture driver that discovered in previous stage. * Approve architecture drivers: After review and evaluate the architecture driver with customer, requirement team and architecture team, the architecture team must present about this with customer and make the approved by them to baseline this. |
| Validation | * Team discuss with customer and baseline |
| Exit criteria | * Architecture drivers are baseline * Decision about ADD final (Yes/No) |

*Table 6: Evaluate Architecture Driver*

Role and responsibility in this stage:

|  |  |  |
| --- | --- | --- |
| No. | Role | Responsibility |
| 1 | Project Manager | * Control and monitor to ensure project schedule |
| 2 | Requirement Engineer | * Review and feedback on architecture driver * Map architecture driver with requirement |
| 3 | Architecture leader | * Plan meeting * Introduce architecture driver * Explain and collect feedback on architecture drives |
| 4 | Architecture team member | * Review and feedback on architecture driver |
| 5 | Customer | * Review, feedback and approve architecture driver |

* 1. **Stage 3**

|  |  |
| --- | --- |
| Entry criteria | * Requirement, architecture driver and project scope are baseline clearly |
| Task | * Design the initial architecture or refine the architectural design, or refine the architecture design based on the output of the design evaluation: Based on the architecture drivers that approved by customer, the architecture team will create and develop the architecture of system about the design decision, rationale, architecture perspective: allocation, module and C&C. |
| Validation | * Architecture team review and consult together |
| Exit criteria | * System architecture are defined * Software Architecture Document versions |

*Table 8: Create/Refinement Architecture*

Role and responsibility in this stage:

|  |  |  |
| --- | --- | --- |
| No. | Role | Responsibility |
| 1 | Project Manager | * Control and monitor to ensure project schedule |
| 2 | Architecture leader | * Plan meeting * Lead the architectural design activities: decompose and assign task to design system architecture * Gather data and summary into the architecture design document |
| 3 | Architecture team member | * Design and writing/updating the architecture design document * Review and feedback issues about architecture |
| 4 | Technical leader | * Support the architecture team member discuss about the architecture of the system. |

*Table 9: Role and responsibility in stage 3*

* 1. **Stage 4**

|  |  |
| --- | --- |
| Entry criteria | * System architecture are created and agreed by team |
| Task | * Evaluate the architecture design: A meeting will be setup with the participation of customer, requirement team, and architecture team to review and evaluate the architecture of the system that created before and make the approved by customer. |
| Validation | * Team review and approve with customer |
| Exit criteria | * System architecture are baseline * Update Software Architecture Document versions |

*Table 10: Architecture Review*

Role and responsibility in this stage:

|  |  |  |
| --- | --- | --- |
| No. | Role | Responsibility |
| 1 | Project Manager | * Control and monitor to ensure project schedule |
| 2 | Architecture leader | * Plan meeting * Trace through and answer analysis questions about the architecture design during the evaluation |
| 3 | Requirement Engineer | * Participate in the evaluation as a questioner |
| 4 | Architecture team member | * Participate in the evaluation as a questioner * Support for architecture leader |
| 5 | Technical leader | * Participate in the evaluation as a questioner * Support for architecture team member |

*Table 11: Role and responsibility in stage 4*

* 1. **Stage 5**

|  |  |
| --- | --- |
| Entry criteria | * Feedback of reviewer |
| Task | * Evaluate the list of issues uncovered in architecture evaluation and determine how each issue will be addressed. * Make a go/no-go decision. * A go decision means the architecture is fit and ready for production. * A no-go decision means that the architecture needs further refinement. |
| Validation | * Team review and approve with customer |
| Exit criteria | * Go/no-go decision * Decision about Software Architecture Document final (Yes/No) |

*Table 12: Production Go/No-Go*

Role and responsibility in this stage:

|  |  |  |
| --- | --- | --- |
| No. | Role | Responsibility |
| 1 | Project Manager | * Control and monitor to ensure project schedule |
| 2 | Architecture leader | * Plan meeting * Collect issues and analysis it, propose how the various issues will be addressed |
| 3 | Requirement Engineer | * Participate in the issue analysis meetings. * Track issues on requirement to resolve |
| 4 | Architecture team member | * Participate in the issue analysis meetings. * Support for architecture leader to resolve issues |
| 5 | Technical leader | * Participate in the issue analysis meetings. * Support for architecture leader to resolve issues |

*Table 13: Role and responsibility in stage 5*

* 1. **Stage 6**

|  |  |
| --- | --- |
| Entry criteria | * **The result of Create/Refinement Architecture Stage** * **SAD final** |
| Task | * Plan detail design. |
| Validation | * Team discuss, review and approve with customer |
| Exit criteria | * Production planning. |

*Table 14: Production Planning*

Role and responsibility in this stage:

|  |  |  |
| --- | --- | --- |
| No. | Role | Responsibility |
| 1 | Project Manager | * Control and monitor to ensure project schedule |
| 2 | Architecture leader | * Collect issues and analysis it, propose how the various issues will be addressed |
| 3 | Architecture team member | * Planning for detail design. |

*Table 15: Role and responsibility in stage 6*

1. **Tool**

* Microsoft Visio 2013
* Microsoft Word 2016
* Microsoft Excel 2016
* Github

1. **Schedule**
2. **Template Document**

|  |  |  |  |
| --- | --- | --- | --- |
| No | Template | Description | Location |
| 1 | SAD Document Template | Document descript Software Architecture Driver of system | TripleX\Private\Tan\6. Template ( on Github ) |
| 2 | ADD Document Template | Document descript Software Architecture of system | TripleX\Private\Tan\6. Template ( on Github ) |

**Table 1**6**:** Template Document reference