**Architecture Driver Specification**

Admission system

# **List of table**

# **Revision**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Version** | **Update date** | **Author** | **Content** |
| 1 | 0.1 | 12/02/2013 | Khang Huynh | Create Architecture driver specification |
| 2 |  |  |  |  |

Table 1: Revision history

# **Introduction**

## Purpose

This document will be used to record, communicate and refine the operation requirement for the project. This document will act as the main repository of requirements during the project.

## Purpose

This document describes requirements that impose ecommerce system on response and become the foundation for developing overall the architecture and detailed design of the system.

## Intended Audience and Reading Suggestions

The intended audience for this document is the SOL team and the customer. These stakeholders are to review the document.

## Definitions, Acronyms and Abbreviations

|  |  |  |
| --- | --- | --- |
| **No.** | **Glossary** | **Description** |
| 1 | E<XX> | ID of the entity with:  E: Entity.  <XX>: Number of each entity. |
| 2 | UC.<XX> | ID of the use case high level with:  UC: Use Case.  <XX>: Number of each use case high level. |
| 3 | UC.<XX>.<YY> | ID of the use case detail with:  UC: Use Case.  <XX>: Number of use case high level.  <YY>: Number of each use case detail has in use case high level. |
| 4 | QAU | Quality Attribute Usability. |
| 5 | QAS | Quality Attribute Security. |
| 6 | QAP | Quality Attribute Performance. |
| 7 | QAA | Quality Attribute Availability. |
| 8 | QAM | Quality Attribute Modifiability. |
| 9 | BC.<XX> | ID of the business constraint with:  BC: Business Constraint.  <XX>: Number of each business constraint. |
| 10 | TC.<XX> | ID of the technical constraint with:  TC: Technical Constraint.  <XX>: Number of each technical constraint. |
| 11 | BR.<XX>.<YY> | ID of the business rule with:  BR: Business Rule.  <XX>: Number of use case high level.  <YY>: Number of each business rule has in uses case detail. |

## 1.5 References

|  |  |  |
| --- | --- | --- |
| **No** | **Document** | **Description** |
| 1 | Architecting.Software.Intensive.Systems.A.Practitioners.Guide.Nov.2008. | Using for create document outline. |
| 2 | Documenting Software Architectures - View and Beyond, Paul Clements, 2010 (Clements 10) | Applying to describe Views. |
| 3 | Software Architecture in Practice | Applying to describe Views. |
| 4 | AS\_RE\_OperationRequirement | Using to analyze detail more customer’s requirements. |

# **Project overview**

Ecommerce System (ES) is web and android application where consumer directly order deals from seller over on the internet. Consumer can visit to view and choose the best deals. The system consists of key modules:

* Basic Management.
* Deal Management.
* Suggest Deal.

# **Architecture overview**

The architectural drivers presented in this document include:

* Functional Requirements: These requirements are presented in the form of specifications and use cases. These are a refinement of the requirements documented in the operation requirement document.
* Quality Attribute Requirements: These requirements are presented in the form of quality attribute scenarios. These scenarios are based on the quality attributes documented in the operation requirement document.
* Business Constraints: These are the business constraints documented in the operation requirement document.
* Technical Constraints: These are the technical constraints documented in the operation requirement document.

# **Functional requirement**

## 4.1 Specification

Refer to AS\_RE\_OperationRequirement-1.0

## 4.2 Requirements Traceability Matrix

Refer to AS\_RE\_RequirementTraceabilityMatrix-1.0

## 4.3 Entities Description

|  |  |
| --- | --- |
| **ID** | **Entity** |
| E01 |  |
| E02 |  |
| E03 |  |

### 4.3.1 E01

|  |  |
| --- | --- |
| Entity name: | Entity ID: E01 |
| **Description:** | |
| **Provide assumptions:** | |
| **Requires assumptions:** | |
| Identified use case: | |

### 4.3.2 E02

|  |  |
| --- | --- |
| Entity name: | Entity ID: E02 |
| **Description:** | |
| **Provide assumptions:** | |
| **Requires assumptions:**  Consumer requires the system to provide: | |
| Identified use case: | |

## 4.4 Use case list

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Use Case** | **Entities Involved** | **Use Environment** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## 4.5 Use Case Modeling

### 4.5.1 Use Case High Level

### 4.5.2 Use Case Detail Level

## 4.6 Use Case Description

# **Quality Scenario**

# **Prioritization**

## 6.1 Reference

Priorities given by the customer: H (High), M (Medium) and L (Low).

AD: stands for architectural driver (QA, functional requirement or constraint).

Stakeholder priorities:

|  |  |
| --- | --- |
| **Priority (name)** | **Description** |
| **High** | The features or quality that are required to develop by customer. |
| **Medium** | Develop suggested features or quality that customer approved. |
| **Low** | The features or quality that customer intend to develop but it are not in the project plan. |

Architecture design team priorities:

|  |  |
| --- | --- |
| **Priority (name)** | **Description** |
| **Hard** | Satisfying the architectural driver presents significant scientific or engineering challenges and unknowns. The architecture design team is unsure about how to satisfy this architectural driver or if they can satisfy it. They have little or no experience or expertise with the problem or domain. Little or no information exists about how to satisfy the architectural driver. |
| **Challenging** | The AD presents some scientific or engineering challenges and unknowns. Although challenging, the architecture design team generally understand how to satisfy this AD. They understand the associated difficulties. There exists sufficient scientific and technical information about how to satisfy this AD, or the team has sufficient experience and expertise with the domain of the problem. |
| **Easy** | Satisfying the AD presents little scientific or engineering challenges or unknowns. The architecture design team knows how to satisfy this AD. |

## 6.2 Use Case Prioritization

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ID** | **Use Case** | **Stakeholder priority** | **Difficulty ranking** | **Final Priority** | **Comments** |
| **UC.01** |  | | | | |
| UC.01.01 |  |  |  |  |  |
| UC.01.02 |  |  |  |  |  |
| UC.01.03 |  |  |  |  |  |

## 6.3 Quality Attribute Prioritization

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ID** | **Title** | **Stakeholder priority** | **Difficulty ranking** | **Final Priority** | **Comments** |
| QAU |  |  |  |  |  |
| QAS |  |  |  |  |  |
| QAP |  |  |  |  |  |
| QAA |  |  |  |  |  |
| QAM |  |  |  |  |  |

## 6.4 Business Constraints Prioritization

|  |  |  |
| --- | --- | --- |
| **Description** | **Difficulty ranking** | **Comments** |
| Time of market is 30 weeks | Challenging |  |
| Human resource: 6 members | Challenging |  |

## 6.5 Technical Constraints Prioritization

|  |  |  |
| --- | --- | --- |
| **Description** | **Difficulty ranking** | **Comments** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |