Open Source Engine Integration Software Requirement Specification

Harris SmartWorks
Open Source Engine Integration
Computer Science Dept
COSC470
Okanagan College

Aubrey Nickerson
Bao Mai
Derek Manchee
Joesph Egely
Keaton Canuel

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Revision Sheet			
Revision	Date	Summary of Changes	Name
Version 1	11-8-2020	Baseline Draft Document	Bao Mai
Version 2	11-22-2020	Update requirements based on client requests	Bao Mai

Contents

1 Introduction

This section explain the purpose and scope of the project system requirements specification (SysRS), as well as, provide clarification of definitions, acronyms, and references. This section should also provide an overview of the project.

1.1 System Purpose

The purpose of this documentation is to build an integration engine that is capable of sending HL7 V2.x messages to FHIR server.

1.2 System Scope

The purpose of this integration engine is to send the message HL7 V2.x messages,which is used to transfer of clinical and administrative data between software applications,and convert them into FHIR format then send them to a cloud base FHIR server. The FHIR server is used to provide health care information to healthcare providers and individuals.

1.3 Definitions, Acronyms, and Abbreviations

1.3.1 Key Definitions

HL7 - A not-for-profit, ANSI-accredited standards developing organization dedicated to providing a comprehensive framework and related standards for the exchange, integration, sharing, and retrieval of electronic health information that supports clinical practice and the management, delivery and evaluation of health services.
FHIR - A standard describing data formats and elements and an application programming interface for exchanging electronic health records.
HL7 - ADT A messaging standard for communicating Admission, Discharge and Transfer messages.

1.3.2 Key Acronyms and Abbreviations

HL7 - Healh Level Seven
FHIR - Fast Healthcare Interoperability Resources
SysRS - System Requirements Specification

2 Functional Objectives

•The system shall be able to receive the legacy HL7 V2.x messages
•The system shall sort out HL7 V2.x ADT A01, A03or A08 messages
•The system shall parse messages bases off message headers
•The system shall be able to convert HL7 V2.x messages to FHIR data format and elements
•The system shall be able to send converted HL7 V2.x ADT messages to the FHIR server
•The system shall display data from PID and PV1 segments of the ADT messages to the GUI
•The system shall provide simple hospital facility structure.

3 Non-functional Objectives

•The system shall be able to quickly and fully receive the HL7 V2.x messages
•The system shall be able to continuously receive the HL7 V2.x messages
•The system shall be able to convert all 2.x version of HL7 A01, A03, A08 messages
•The system shall be able to run on IOS devices
•The system shall be able to run on Android devices.

4 Product perspective

4.1 System Interface

The application will run in the latest version of IOS and Android devices

4.2 User Interface

The application GUI providesdata from the PID and PV1 segments ofthe ADT messages.

4.3 Software Interface

The application store project data JSON format to easily display it.