Software Requirements Specification

for

Physician Portal

**Revision History**

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| --- | --- | --- | --- |
| **Name** | **Date** | **Reason For Changes** | **Version** |
| Mike Crowell | 5/22/2013 | Initial Document | 1.0 |
| Mike Crowell | 6/2/2013 | Requirement Revision | 2.0 |
| Mike Crowell | 6/28/2013 | Requirement Revision | 3.0 |

# Introduction

## Purpose

This document will outline an application that will be used within a physician group office to allow physicians to access their patient results received from the various institutions where they provide services.

## Project Scope

This project will provide a web portal solution for the physicians group office that will provide them with access to patient results received from authorized institutions. The web portal will communicate with the different systems by means of a batch HL7 interface. The HL7 interface will automatically update the database. The application will allow for login restrictions so physicians can only see the results of those patients where they are listed as the attending provider. Statistical analysis reporting will be provided.

# Overall Description

## Product Perspective

The physician group needs a centralized means to access patient results that currently exist in a handful of different software applications from different software vendors.

## Product Features

This application will consist of an HL7 interface. HL7 (Health Level 7) is a standardized format used in the integration of data between disparate systems within a healthcare environment. The interface will import data from a file in HL7 format and perform an add or update to the database with the data from that file. Providing an HL7 interface will allow the application to communicate with many of healthcare software products from different vendors. The HL7 interface will import ORU (observational results) transactions. The interface will be automated to run on a timed interval that can be set by the user. The application will feature security that will only display those patients that are assigned to the physician that is currently logged in. Physicians will be able to view order status and finalized results for each test that has been ordered for each of their patients. General patient demographic information can also be viewed. Statistical analysis reports will be available to all users. A complete list of those reports is still to be determined but will include: Most common tests ordered by physician group, most common tests ordered by each physician, list of sites where each physician practices.

## User Classes and Characteristics

The primary target audience of this application is the physicians within the physicians group. Other office staff at the physicians group office will also be users of this application. Because of this, the users will have a wide range of web and computer skills.

## Operating Environment

This application will be a web portal designed to allow the physicians to access the application from remote locations on any platform. It will be used in Internet Explorer, Firefox, Chrome, Safari, and potentially Opera web browsers.

## Design and Implementation Constraints

Cross browser, support may cause issues with the development of this application since it will be a web application. This could have an effect on the style and potentially some of the functionality of the application.

## User Documentation

A manual is included outlining the functionality of the application.

# System Features

* Import external file and validate that it is in HL7 format.
* Parse HL7 file and add or update patient information to database.
* Automated HL7 import process with interval defined by user.
* Create a log file of the status of each import, and an error file with any issues that occur during the import process.
* Add, edit, physicians in database.
* Add, edit, locations that physicians group services.
* Add, edit, list of test codes.
* Security to restrict data that is displayed based on user that is logged in.
* Allow physicians to display a list of their patients.
* Allow physicians to view a list of tests that have been ordered for each patient and the status of each order.
* Allow physicians to view the detailed results for each order that has been resulted.
* Statistical analysis reporting.

# External Interface Requirements

## User Interfaces

This will be a web application with a login splash screen to require user credentials before accessing the rest of the application.

## Software Interfaces

This is a .NET web application that connects to an MSSQL 2008 database, which serves as the storage place for all of the patient data and physician group tables.

## Communications Interfaces

This application will use a web browser for the user interface. Users will communicate with the web server using HTTP.

# Other Nonfunctional Requirements

## Security Requirements

Each account will be password protected. Along with that administrators will have the ability to make accounts for users, along with activate and deactivate those accounts as needed.

## Software Quality Attributes

This application will display a simple interface that will aid the most basic of users, while supplying the administrators with the control they need.