Software Requirement Specification

Report Automation Portal

version 0.1

Table of Contents

|  |  |  |
| --- | --- | --- |
| S.No. | Title | Page No. |
| 1. | Introduction |  |
| 2. | Overall description |  |
| 3. | Specific Requirments |  |
| 4. |  |  |
| 5. |  |  |
| 6. |  |  |

**1. Introduction**

The software for report generation is a web application. In this software the input is in the form of an Microsoft Excel file which contains the prerequisite data for processing and the processed reports are also in the Excel (xslx) format which is computed on a particular day’s report and also takes consideration of reports of previous 3 days. It provides the users the ability to upload and compute the desired report over the local network.

**1.1 Purpose**

This SRS defines the functioning, performance and attribute requirements of the report generation software. This SRS is intended for:

* Management of the vertical
* Developers for adding new features, or maintaining the current releases
* Documentation writers
* Testers of the software

**1.2 Scope**

This report automation software will be called as Report Automation Portal (or software). This software allows the user to upload and view different reports pertaining to a particular selected day. Some administrator level (admin) users will have complete rights to execute any action in the software along with being able to grant or revoke the user access as per need though one admin cannot revoke rights of other admin.

**1.3 Definitions, acronyms, and abbreviations**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**1.4 References**

The references for the above software are as follows:

1. IEEE SRS Standard 830-1993

**1.5 Overview**

Section 1.0 discusses the purpose and scope of the software

Section 2.0 describes the overall functionality and constraints of the software and user characteristics

**2.0 Overall description**

**2.1 Product perspective**

The Report Automation Portal is a web application and it is used to generate the reports about up and down Optical Network Terminals(ONTs) and Optical Fibre Conncections (OFCs), that is to say it compiles the reports in Excel format for the different districts in the state. This report is then used to compare to the statistics of the BBNL (Bharat Broadband Network Limited) NMS. In its current form this software is a stand alone software which does not interact with other softwares of the system.

The hardware for the product is a computer which could run a web server, database software, storage to keep old reports and has a port to connect to the internal network or the internet as per use case. The software is bound to the restriction that filenames of the reports should be consistent to a set pattern.

**2.2 Product functions**

The software performs the following functions:

* Take daily reports in form of excel sheet from the user and then, store them in the computer’s storage
* To process the reports of the day to provide the requested data
* Store the processed report in its database

**2.3 User characteristics**

There will be different types of users that will be interacting with the software. The catagories of the users include:

* **User A** – A person who will compile the reports and compare them to the NMS statistics or view the reports.
* **User B** – A person who has administrator rights to the portal like adding or deleting user along with viewing other users.

**2.4 Constraints**

The software will be subject to certain development constraints such as:

* Reports with a different format and pattern of filename may not be processed, thus they need to be consistent
* The Report Automation Portal may not be able to connect to the NMS if there is no open Application Programming Interface for it. Thus reports need to be downloaded from the NMS manually.
* Correction of district names may not be 100% accurate if there are too many spelling errors or if there are more than 1 possible match of district names due to the algorithm for spelling correction used.

**2.5 Assumptions and dependencies**

The software can be affected by the following assumptions and dependencies:

* The hardware can run the processes and services like Apache2 or Nginx web servers, MySQL database and Node.js runtime environment.
* The selected Operating System AlmaLinux (a binary compatible fork of Red Hat Enterprise Linux) can run on the given hardware.
* At this stage no quantitative measures are imposed on software in terms of speed and memory although it is implied that all the functions will be optimized for speed and memory.

**3 Specific Requirements**

**3.1 External Interfaces**

3.1.1 User Interface Requirements

The user interface for the portal will have simple and user-friendly interface. The text should be easily readable with background colour contrasting to the text colour.

The pages for a User A (regular user) and User B (an admin) will have different buttons according to functions.

3.1.2 Hardware interface requirements

The software will interact with the server machine and