HAM System for Alarm monitoring

4.1 Introduction

Last chapter discussed about technology adapting for the solution, advantages and disadvantages of each technologies. This chapter identifies the approach for the development, software language and scope of the project that I wish to complete.

4.2 Selected Approach

After discussions with current users, went through all the documents being used. are understood the current ordering process, I was able to gather Software Requirements for the proposed Alarm Monitoring system and prepared Software Requirements Specification (SRS).

After the preparation of SRS, I have selected waterfall model as my software designing process model. Since the development of the new system has been portioned to distinct stages having understood the domain well, the requirements are well understood and agreed with the management, there is no such issue on selecting the waterfall model as software process model.

I have selected VB.net as my programming language with SQL Server Database.

4.2.1 Microsoft Windows XP

Microsoft Windows XP Professional with SP2 or higher, It is most widely used and available.

4.2.2 Microsoft VB.Net 2005

Microsoft Visual Studio 2005 professional Edition - Microsoft Visual Basic 2005 is one of the most popular programming languages with Microsoft .Net framework version 2.0.50727.

4.2.3 Microsoft SQL Server 2005

Microsoft SQL Server 2005 is one of the most popular Relational Database Management Systems which is commonly used for the commercial applications. It is simple, user friendly, flexible, easy to install and configure but the most powerful Database Management System. It comes with various kinds of editions. In this environment, Enterprise Edition and Personal (Desktop) Edition are used.

Enterprise Edition – For systems which installed Windows Servers operating systems

(e.g.: Windows 2000, Windows 2003)

Personal Edition – For systems which installed Windows Client operating systems

(e.g.: Windows XP, Windows Vista)

4.2.4 Adobe Photoshop Version 8.0

Images are used in the proposed Alarm Monitoring system. Since Adobe Photoshop is user friendly it is chosen to edit images in the system

4.2.5 Microsoft Word, Excel and Visio (Ms Office 2003)

Microsoft office is common and easy software package for document writing, Tables and for Diagrams. It is user friendly and it has all the required features for writing the documentation of the system. So it is selected to write project document.

4.3 Scope of the project

Purpose of this project is to produce an alarm monitoring system only for all BSC & BTS alarms showing on one specific client machine. Attractive graphical user interface, important alarms with different colours and fonts.

Give and change colour indication with duration of alarm.

If lower than 1hour – green colour

Between 1 and 2hours – orange colour

Greater than 2hours – red colour

With possible conditions give failure cause.

Site out of service

Reason whether –

➢ Power failure and battery drain

➢ Store Alarm history for cause identification

- This system not collects alarms of other transmission equipment alarms or Mobile Switching Center (MSC) alarms.

- This system not carries alarms from Kandy, Galle or Anuradhapura site alarms from their location. It only collects all the alarms from 5 servers and shows them on a one alarm interface.

- This system has Standard colour template for most important and critical alarms.

4.4 OOA & OOD

I used OOA & OOD as my analysis and design methodology.

Since objects can be reused when designing a system, the cost of designing, programming and validating can be reduced considerably.

4.5 Summary

This chapter discussed with selected approach and software involved with proposed development. Also includes water fall model as software process model, Object Orient analysis and design methodology and Unified Modeling Language.

Next chapter is Analysis and Design chapter. It identifies Analysis and Design in two concepts and analyzes the existing system and current Alarm monitoring approach includes appendix B. Then the design stage involves. This design stage includes all the Use-Cases, Activity, Sequence diagrams, Class diagrams, the Database design and the User interface design, also includes appendix C, D, and E.