Monitoring Bandwidth Usage and Server Performance

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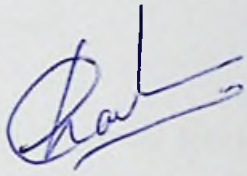
Declaration

We declare that this thesis is our own work and has not been submitted in any form for another degree or diploma at any university or other institution of tertiary education. Information derived from the published or unpublished work of others has been acknowledged in the text and a list of references is given.



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C.L. Wimalarathne

Abstract

The University of Ruhuna, one of the leading Universities in Sri Lanka is committed to quality education, research excellence, and strategic partnership with industry and community development. The University needs to take an initiative in developing an intellectual, academic and research base that can attract energetic young academics and professionals to engage in creating the knowledge base that is essential for the development of the Southern region. Since the University of Ruhuna now consists of 7 faculties - Agriculture, Engineering, Fisheries and Marine Sciences & Technology, Humanities & Social Sciences, Management & Finance, Medicine and Science - that cover vitally important aspects in the development paradigm, what remains to be done is to energies the faculties in their research and training activities.

Use of Internet grew fast rate after the introduction of the World Wide Web. Most of the people trying to do their day-to-day work by using Internet. Also the "e" concept is more popular and grew very fast in the world.

For the Internet, bandwidth usage is the very important and valuable issue. Users have to pay for Internet usage, due to that monitoring is one of the very essential events. This project is addressing the Monitoring Bandwidth usage, on application level which runs on a computer system with squid web cache software on Linux operating system. Currently University of Ruhuna does not have any efficient bandwidth monitoring system. Proposed system will address this problem.

Table of Content

Page

Declaration i
Acknowledgements ii
Abstract iii
Table of Content iv
Table of Figures viii
List of Acronyms x
Chapter 01 1
1 Introduction 1
1.1 The Organization 1
1.2 Overview of the Project Environment 1
1.3 Motivation 2
1.4 Services Handled by the DCS 3
1.5 Problem to Solve 6
1.6 Main Difficulties faced by the DCS are, ... 7
1.7 Aim and Objectives 7
1.8 Structure of the Report 8
Chapter 02 9
2 Background 9
2.1 What is Bandwidth Monitoring System? 9
2.2 Data collecting Objects 9
2.2.1 Switches 10
2.2.2 Router 10
2.2.3 Squid web cache proxy 11
2.2.4 Review of relevant projects 11
2.2.5 Summary 17
2.3 Why web based Monitoring System? 17
2.3.1 Cross platform compatibility 17
2.3.2 More manageable 18
2.3.3 Highly deployable 18
2.3.4 Secure live data 18
2.3.5 Reduced costs 18
Chapter 03 19
3 Technology Requirements 19
3.1 Software for the Development 19
3.2 Reasons for Open-source software 19
3.2.1 XAMPP 19
3.2.2 Apache 20
3.2.3 PHP 20
3.2.4 MySQL 20
3.3 Open source Applications 20
3.3.1 Multi Router Traffic Grapher 20
3.4 Simple Network Management Protocol (SNMP) 21
3.4.1 SNMP-Walk 21
3.5 The Architecture 22
3.5.1 Three – Tier Architecture 22

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3.5.2 Why do we need the three-tier architecture? 22
Chapter 04 25
4 Requirement Analysis for Ruhuna-MBS 25
4.1 Chapter Overview 25
4.2 User characteristics and objectives 25
4.2.1 Administrative staff 25
4.2.2 Network Users 26
4.3 Functional Requirements of the Product 26
4.3.1 User Module 26
4.3.2 Administration Module 27
4.4 Non Functional Requirements 27
4.5 Requirement capturing methods 27
4.6 Mechanism of Requirement Verification 28
Chapter 05 29
5 Design of Ruhuna-MBS 29
5.1 Design Methodology 29
5.2 High Level Design 29
5.3 User Interface Design 30
5.4 The Big Picture for Development 30
5.4.1 Use Case Diagram 30
5.4.2 User Authentication Process Design 33
5.4.3 Report Module Design 34
Chapter 06 35
6 Implementation of Design 35
6.1 Tool Selection 35
6.2 Operating System Selection 35
6.2.1 Reliability and Stability 35
6.2.2 Security 36
6.2.3 Familiarity and Popularity 36
6.2.4 Performance and Resource Management 36
6.3 Implementation Language Selection for Business Logic Components 36
6.3.1 Execution Speed and Efficiency 36
6.3.2 Development Tools 37
6.3.3 Ease of Database Connectivity 37
6.3.4 Familiarity 37
6.4 Database Selection 37
6.4.1 Ease of Use 37
6.4.2 Familiarity 38
6.5 CASE Tool 38
6.5.1 Ease of Use and Availability 38
6.6 Implementation of Ruhuna-MBS 39
6.6.1 Proxy Server 39
6.6.2 Configuration the proxy server 40
6.6.3 Automated Processes in Ruhuna-MBS 42
6.6.4 User Interface (Presentation Layer) 44
6.6.5 Business Logic Layer of Ruhuna-MBS 45
6.6.6 Error Handling 45
6.6.7 Storage Layer 45
Chapter 07 47

7 Testing and Evaluation of Ruhuna-MBS 47
7.1 Testing 47
7.2 Evaluation of New System 50
7.3 The Ruhuna-MBS Developed 50
7.4 Evaluation Result 51
Chapter 08 52
8 Conclusion and Future Developments 52
8.1 Conclusion 52
8.2 Achievements of the Project 52
8.3 Future Developments 52
References I

Table of Figures

Figure 2-1: Architecture of web request 10
Figure 2-2: output of the bmon 12
Figure 2-3: output of the bwbar 12
Figure 2-4: output of theiftop 13
Figure 2-5: output of the cbm 13
Figure 2-6: output of the pktstat 14
Figure 2-7: output of the ibmonitor 15
Figure 2-8: output of the tcptrack 15
Figure 2-9: output of the MRTG 16
Figure 3-1: Typical Layers of three-tier architecture 23
Figure 3-2: Web Enable Application via Internet/Intranet 24
Figure 5-1 : Typical Three-tire Structure for the Ruhuna-MBS 30
Figure 5-2 : Use Case diagram for Ruhuna-MBS 32
Figure 5-3 : Activity diagram for user authentication 33
Figure 5-3 : Activity diagram for report module 34
Figure 6-1 : Architecture of web request 39
Figure 6-2 : Architecture of Propose system 40
Figure 7-1 : Update results by the automated process 49

List of Tables

Table 1-1: IP allocation, UoR 05

Table 6.1: Sample record for each Department table 44

Table 7.1: Evaluation Summary 51

List of Acronyms

Ruhuna-MBS	: Name of the Outcome system of the Project
Ruhuna-LAN	: Local Area Network at University of Ruhuna (wellamadama complex)
DCS	: Department of Computer Science/ Computer Unit
LEARN	: Lanka Education And Research Network
UoR	: University of Ruhuna
PHP	: Hypertext Preprocessor
MRTG	: Multi Router Traffic Graper
OS	: Operating System
HTML	: Hyper Text Markup Language
XML	: Extensible Markup Language
DBMS	: Database Management System
MS SQL	: Microsoft Standard Quarry Language
SQL	: Structured Query Language
MS	: Microsoft
UML	: Unified Modeling Language
WWW	: World Wide Web
MBS Server	: Bandwidth monitoring server