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Intranet chat monitoring tool server / Amir Fauzan Jaafar.

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Tesis dimaksudkan sebagai Laporan Projek Sarjana Muda (PSM)

INTRANET CHAT MONITORING TOOL SERVER

AMIR FAUZAN BIN JAAFAR

**This report is submitted in partial fulfillment of the requirements for the
Bachelor of Computer Science (Computer Network)**


**FACULTY OF INFORMATION AND COMMUNICATIONS
TECHNOLOGY KOLEJ UNIVERSITI TEKNIKAL KEBANGSAAN
MALAYSIA**

2006

DECLARATION

I hereby declare that this project report entitled
INTRANET CHAT MONITORING TOOL SERVER

is written by me and is my own effort and that no part has been plagiarized without
citations.

STUDENT :  Date: 24/4/06
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DEDICATION

Specially dedicated to
My beloved family members who have
encouraged, guided and inspired me throughout my journey of education
my friends, and my colleagues.

ACKNOWLEDGEMENT

In the name of Allah the Almighty and most Merciful

Firstly, I would like to express my gratitude to Pn haniza Nahar bin Bahaman, my faculty supervisor for facilitating me in the process of undergoing my Projek Sarjana Muda I (PSM I) and Projek Sarjana Muda II (PSM II). I would also like to thank all my lecturers for aiding me with strong academical and technical knowledge to be implemented during PSM I and PSM II besides giving motivation to gain self-belief and confidence in the process of developing the system.

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ABSTRACT

The Intranet Chat Monitoring Tool server is developed to monitor and control the user in the chat session. This benefit of using this server application it can detect a word by word that use by user in the chat client whether in public chat or private chat. This server application also can detected some certain word that used by user in the chat client and it takes an action to filter. It also have an ability to detect the user who is use the banned word and record it in Client Warning Detection. Another function is, it can block the certain user from accessing this server by using the chat client as a chat user. Every user that registered in the server can be view by the admin when they were online. Beside that, the server also have an ability to monitor the status of current user whether there were offline, online , sleep, away or inactive. Although this application has same objectives with the current system offered as Chat Watcher and ChatBlocker but this is alternative for user to choose how they want to monitor their own chat activities in the organization.

ABSTRAK

Sistem Intranet Chat Monitoring Tool Server dibangunkan untuk mengawal dan mengurus cara komunikasi yang lebih baik di antara pengguna di dalam sesebuah organisasi. Antara kelebihan sistem ini adalah berupaya mengesan perkataan demi perkataan yang digunakan oleh pengguna dalam Intranet Chat Client samada melalui “Public Chat” atau pun “Private Chat “. Aplikasi server ini juga mampu untuk mengesan sesetengah perkataan yang di gunakan oleh pengguna dan seterusnya ia bertindak untuk menapis perkataan tersebut. Ia juga akan meerekodkan siapa dan apa perkataan yang digunakan. Antara fungsi yang lain ia dapat menghalang sesetengah pengguna dari terus menggunakan mengakses server tersebut melauai Intranet Chat Client Chat sebagai pengguna yang biasa. Server ini juga mampu melihat segala maklumat pengguna yang berdaftar kepadanya. Selain itu ia juga dapat melihat samada pengguna itu “offline”, “online”, “inactive”, “inaway” or “sleep” berdasarkan status pengguna tersebut. Walaupun sudah ada beberapa system yang mempunyai peranan yang sama seperti aplikasi ChatBlocker dan ChatWatcher tetapi aplikasi server yang dibangunkan ini merupakan adalah satu lagi alternative pilihan bagi pengguna .

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LIST OF ABBREVIATIONS

AUT	-	Application Under Test
IP	-	Internet Protocol
IT	-	Information Technology
KUTKM	-	Kolej Universiti Teknikal Kebangsaan Malaysia
LAN	-	Local Area Network
MAN	-	Metropolitan Area Network
NIC	-	Network Interface Card
GB	-	Giga Byte
GHz	-	Giga Hertz
GUI	-	Graphical User Interface
PC	-	Personal Computer
PSM I	-	Projek Sarjana Muda I
PSM II	-	Projek Sarjana Muda II
RAM	-	Random Access Memory
SDLC	-	Software Development Life Cycle
ICMT	-	Intranet Chat Monitoring Tool
STP	-	Software Test Plan
UAT	-	User Acceptance Test
UTP	-	Unshielded Twisted Pair
WAN	-	Wide Area Network
WWW	-	World Wide Web

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CHAPTER I

INTRODUCTION

The process of the communication are very important to the organization today. This is because the real fast communication in an effective way will reduce the time and cost then continuously it will increase the productivity of an organization. Chat Monitoring Tool server is one project is to monitor the chat system between client and it process into server into another client.

1.1 Project Background

Now days , a process of communication is the important element to the most organization as it create a lot of benefit toward themselves. For example, the communication between members in the organization are very important for archiving an organization mission and vision. The Intranet Chat Monitoring Tool Server are the better solution to all the fast and effective communication solution in the organization. Before this, there are no much specific monitoring tool to monitor all the communication for Chat. Most of the

monitoring tool now is more on monitoring physical network environment. There is not need for video conferencing or any complex configuration setting to create the best communication just only in local environment, we are suppose to use the Chat system to minimize the cost and time. The specific purpose for this project are creating the best solution to control and monitor the chat process for creating the fast and effective communication way.

1.2 Problem Statement

Today's, many organization are facing a lot of communication problem among their member in their own organization. Sometimes, most the organization give the permission to their members to use MSN or Yahoo Messenger Chat client to communicate to each other but it create a lot of problems cause it reduces the productivity of the members. The problems are : (1) MSN or Yahoo Messenger are design for entertainment stuff which are not very suitable for organization requirement, (2) MSN or Yahoo Messenger are design for global user, so the organization's member can access the outside people who are not related to the organization (3) there no much specific monitoring tool can monitor the chat process (MSN or Yahoo Messenger). If there have one, it must a powerful monitoring tool and the organization have to spend a lot of money to buy the system for example Inetmon Monitoring Tool.

1.3 Objectives

Defining all the objectives of each project that we want to developed are very important for us to meet the goals why the system must be developed to the end user. The objectives for this project are:

1. To create a Fast and Effective Communication

The system will monitor all the process of chat. It will cover a chat problem detection, trace a user location using an IP address, monitoring the chat situation e.g detecting rude or annoying words, block the certain user, give the warning to the user and more features.

2. To increase a productivity the player of organization

It can prevent a user to distract from their really task to another unrelated things because they only use a local Intranet Chat System. Therefore they will control by Intranet Chat Monitoring Tool Server.

3. To create a friendly monitoring tool

The project are design especially design for everybody although there are not really related to network environment to handle a chat monitoring tool. This is because the project will be delivered on an interesting graphical way. For example, the system will show the type of connection in color graphical way.

1.4 Scopes

The project are developed and design to create an effective and easier communication to use by any organization. For example in Educational organization such as KUTKM, it are very effective way to the student to communicate with their own lecturer by using the Intranet Chat Client that controlled by Intranet Chat Monitoring Tool Server. The project will be done internally approach. The process that guide the complete system are:

1. Application

- i. Application Development – Visual basic (Winsock Programming)
- ii. Operation System – Windows XP Profesional Edition

2. Hardware Requirments

- i. Three or more Client Computer
- ii. Server

3. Network Requirement

- i. Switch
- ii. Utp Cable Cross-Over Cable

In every project that we want to develop, defining a scope is very important to define because they will be a usefull reference how we want to crchive the goals of projects. The Scope for the Intranet CHAT Monitoring Tool Server are:

1. Chat Client Monitoring

The system will able to monitor the status of the the current user such as offline, online, away and sleep . It also will detect a type of word that used by Chat Client and keep it into the chat record.

2. Word filtering

Beside that, the system will able to detect some certain word and filter it to a new one referring to word database

3. Instant messaging

A user will able to send the Instant chat message to all usera of chat client and the chat client can reply it to the user at a real time. Another function is a warning

detection if a chat client use a banned word and all of record is keep in the database. The kind of record is a detection by word from which user.

4. Blocking and activate user

Blocking and activate a certain user is an ability for this system to control the user to use the chat client. The decision to block or activate a user is depending on the user behaviour in a Chat Client.

1.5 Project Significant

The idea of the project will be developed to one system that will give a lot of benefit to any organization that realize the importance of communication. For example, in an educational background, the Intranet Chat Monitoring Tool Server are very useful to monitor the chat process between the lecturer and student. The result, it will produce an effective communication between them. The project is important to be developed because it can create a control chat solution to provide an effective communication in a simple chat client system. This communication approach is the best communication can minimize the cost especially the cost, because it can replace the IP Phone or Video Conferences. Therefore it is not unthinkable to use this complex component and maintenance in just a small local environment.

1.6 Expected Output

Intranet Chat Monitoring Tool Server will provide a real-time network detection in local area network. It will monitor all the chat user by blocking them from using the

chat client, type of word using detection, IP tracing to track user and some simple features on it chat client.

1.7 Conclusion

The Intranet chat Monitoring Tool Server can be the best solution to monitor all the chat process between the users to create fast and an effective communication way. All the features and tool that will be add-on that system, hopefully it can help the organization to archive it's mission and vision.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

There are many some common system that has been developed that has related to the Intranet Chat Monitoring Tool. Each system that has been developed has it own an interesting part and it's weakness to be disclosure up. From these different resources at a variety form of levels, a research can be done to guide to complete the full project to archive the main objective why the project must develop to the user.

2.2 Fact and finding (past application review and chat administration review)

Below are some of the findings in the process to build the Intranet Chat Monitoring Tool Server and the Client.

2.2.1 Monitor Windows Messenger and MSN Messenger Conversations on Network

NetChatSpy is a revolutionary application which enables remote monitoring of MSN or Windows Instant Messenger chat sessions without physical access or installing software on any other computer. In addition to chats, you can view lists of contacts, invitations, change of on-line status and who is being blocked by whom.

The unique feature that sets this product apart from its competitors is the ability to remotely monitor chat conversations in complete anonymity. A single computer on a network can remotely monitor the MSN/Windows Messenger chat sessions of any or all computers on the same network simultaneously. The Advantages:

1. Monitor chats from the same or another computer on the same local area network
2. Monitor chats of several computers simultaneously
3. Password protected
4. Stealth Mode - automatically start and run in the background as a hidden application
5. Record chat sessions for later analysis. Chat logs are encrypted for extra security.
6. Produce printed reports of chat conversations
7. View statistics of chat sessions
8. View details of contact lists, invitations, status changes, blocks etc
9. Protocol Analysis - display instant messenger protocol in clear text or hexadecimal
10. No software is needed to be installed on the remote computers being monitored.

2.22 ChatBlocker

ChatBlocker **block chat software** utilizes an advanced heuristic-based technology that intelligently blocks and filters chatting and instant messages. Below is a list of chat and instant messaging platforms that ChatBlocker is currently compatible with:

1. America Online
2. AOL Instant Messenger
3. AOL Instant Messenger Express
4. Excite Messenger
5. MSN Messenger 4.0/5.0
6. MSN Messenger 6.0
7. Yahoo Messengger

The Advantages:

1. Disables chat conversations (when desired).
2. Records chat's (when desired).
3. ChatBlocker block chat software comes fully equipped with chat recording functionality to record chat's and instant messages when chatting is permitted.
4. ChatBlocker block chat software comes with a robust, easy-to-use reporting tool. The report generator within ChatBlocker will generate a sleek report for you to review.