

CHAPTER I

INTRODUCTION

1.1 Background of Study

Universitas Muhammadiyah Surakarta is one of the famous universities in Indonesia. There are a lot of students from many cities who studying in the university. In order to facilitate students, there is a unit which facilitate student to stay. The unit is International Boarding house, K.H Mas Mansur. People also call the boarding house as PESMA. Every year, there are a lot of students from many cities and countries who want to stay in the boarding house. Because of the increasing number of students, PESMA should increase the facilities. One of them is internet facilities.

The need of internet is now urgent. Internet is very important for staff and students. Staff accesses the internet to manage the data. Student accesses the internet to find and access the information and journal.

The use of internet is risky. Without good protection, the system can be broken by cracker. There should be a network security to ensure that the system is safe, especially access rights.

Based on the above background, there should be a solution to authenticate access rights of account. The solution is Single Sign On (SSO) between LDAP authentication. This process will ease the user to use their account. Each user only needs one account to log in to some

system, such as information system of PESMA and hotspot. This process uses encryption which can protect the system from cracking.

Single Sign On (SSO) usually save the credentials in the centered server or a directory. Directory-based system needs high capability by replicating credential storage. In order to apply SSO, there must be a centered server and method of credential storage. Lightweight Directory Access Protocol (LDAP) is designed to update and search directory which are over TCP/IP network. There are developers which use LDAP as a services directory. The developers are Microsoft uses Active directory, Novell uses Novell® eDirectory™, and Netscape uses Netscape Directory server. Due to extensive use of LDAP directory, SSO should provide additional built-in for LDAP. That is needed to ensure that the process can work effectively with modern infrastructure like now (Annonymous, 2006, Novel Inc).

1.2 Problem Description

The problem statement of the research is “How to use LDAP authentication so that a student account can be used to login to information system and hotspot system, in order to support student activity at PESMA KH Mas Mansur UMS?”

1.3 Scope of Study

Problem limitation is used to avoid deviation and dilation of subject matter, so research can be more focus. Problem limitations are:

- 1) The process uses Ubuntu server 12.04.

- 2) Authentication uses LDAP program and web server.
- 3) There will be a communication network in Authentication process. The communication network is SSO between information system of PESMA and hotspot system.
- 4) The data of username and password are used in same database.

1.4 Objective

The objectives of the research are:

- 1) To design and implement SSO system on the limited hot spot and information system account by LDAP authentication.
- 2) To implement the limitation and to increase the security system by LDAP authentication as access rights which is given to the user.

1.5 Benefit

The benefits of the research are:

- 1) For User

The research can help the user especially student to use an account to login to the information system and hotspot system. Moreover, the student doesn't need to memorize username and password to login to each information system in International Boarding house K.H Mas Mansur, Universitas Muhammadiyah Surakarta.

2) For Researcher

The researcher can learn new thing about networking besides what he learned in college. Furthermore, researcher can design and implement SSO in International Boarding house K.H Mas Mansur, Universitas Muhammadiyah Surakarta.

1.6 Report Organization

Report organization to make it easier to be understood is as follows:

CHAPTER I INTRODUCTION

Chapter I consist of background of the study, problem statement, problem limitation, objective, benefits, and report organization.

CHAPTER II LITERATURE REVIEW

Chapters II consist of theories that used in the research, design, construction.

CHAPTER III RESEARCH METHOD

Chapters III consist of explanation about what method that the author uses in the research and implementation.

CHAPTER IV RESULT and ANALYSIS

Chapter IV will explain result and analysis of the application.

CHAPTER V CLOSING

Chapters V consist of conclusion and suggestion based on research.