COMPARING THE VULNERABILITY OF PASSWORD SECURITY ON WINDOWS XP PROFESIONAL AND RED HAT LINUX 9

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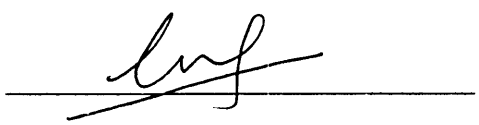
(Signature) : 

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Abstrak

Keselamatan komputer merupakan satu elemen penting yang mesti diambil kira di dalam sesuatu rangkaian komputer. Perkara asas di dalam keselamatan komputer adalah keselamatan katakunci yang terdapat dalam sesuatu sistem pengoperasian. Kajian yang dilakukan ini memfokuskan kepada sistem pengoperasian Windows XP Professional dan Red Hat Linux 9 kerana kedua-dua sistem pengoperasian ini popular digunakan oleh pengguna di Malaysia. Tujuan utama kajian ini adalah untuk mengenalpasti kelemahan di dalam keselamatan katakunci yang terdapat di dalam kedua-dua sistem pengoperasian ini. Dua komputer telah di sambungkan untuk mensimulasikan serangan seperti di dalam rangkaian komputer. Sistem pengoperasian yang digunakan iaitu Windows XP Professional dan Red Hat Linux 9 telah dikonfigurasikan dengan *firewall* yang terdapat didalamnya. Ini adalah untuk memastikan kedua-dua sistem pengoperasian ini dilengkapi dengan tahap keselamatan yang tinggi. Daripada kajian yang telah dibuat didapati keselamatan katakunci pada kedua-dua sistem pengoperasian ini mudah dicerobohi walaupun telah dikonfigurasikan dengan *firewall*. Oleh itu, beberapa langkah mesti di ambil untuk memastikan keselamatan rangkaian komputer kita bebas daripada pengodam.

Abstract

Computer security is an important element that should be consider in computer networking. The basic element in computer security is password security in operating systems. This research focus on Windows XP Professional and Red Hat Linux 9 operating systems because both of these platform is popular used by Malaysian users. The main objective of this research is to identify the vulnerability of password security in both operating systems. Two computers have been connected to stimulate the attacking scenario such as in computer network. Both operating systems which is Windows XP Professional and Red Hat Linux 9 have been configured with firewall that come with the system. This is to ensure that both operating systems is prevent with high level security. From the research study, found that password security on both platform is easy to be crack even firewall is configure earlier. Therefor, some steps should be taken to ensure security in computer network is zero from hackers.

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List of Abbreviations

ACL	Access Control List
CCT	Comparing Caching Techniques
CD-ROM	Compact Disc-Read-Only Memory
CEO	Chief Executive Officer
Corp.	Corporation
DoS	Denial of Service
FTP	File Transfer Protocol
GAO	General Accounting Office
ICF	Internet Connection Firewall
ID	Identity
IP	Internet Protocol
ISECOM	Security and Open Methodologies
IT	Information Technology
LAN	Local Area Network
MB	Megabyte
NIST	National Institute for Standards and Technology
NRM	Network Rating Model
NSA	National Security Agency
OS	Operating System
PC	Personal Computer
PIN	Personal Identification Number
RAM	Random Access Memory
RHEL	Red Hat Enterprise Linux
SA	System Administrator
SANS	SysAdmin Audit Network Security
SP2	Service Pack 2
SSM	Soft Systems Methodology
TCP/IP	Transfer Control Protocol/Internet Protocol
UTP	Unshield Twisted-Pair

CHAPTER 1

INTRODUCTION

1.0 Research Background

Network security is a complicated subject, previously only carried out by well-trained and experienced experts. However, as more and more people become wired, an increasing number of people need to understand the basics of security in a networked world. A dedicated attacker trying a variety of remote commands until he or she successfully cracks the system password. Instead, most attacks today are performed using automated tools, which attempt to exploit known vulnerabilities in various operating system and applications. The key to network security can be found in understanding the choices and strategies available to the building blocks of network security. The most basic building block to any security model is user authentication. User authentication allows for verification that the user is who they say they are; therefore it gives them the ability to regulate that gains access to the network.

Password and user account exploitation is one of largest issues in network security. Attacks on a company or organization's computer systems take many

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