PRELIMINARY ANALYSIS OF INTRUDER DETECTION SYSTEM IN UUM

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by

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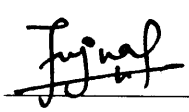
(Signature) : 

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ABSTRAK

Era teknologi maklumat membuatkan kita amat bergantung kepada perkhidmatan yang diberikan oleh sistem dan rangkaian komputer. Namun begitu kebanyakan sistem maklumat berkomputer yang digunakan di dalam kehidupan seharian menyediakan amat sedikit perlindungan terhadap manipulasi dan penyalahgunaan sistem komputer tersebut. Kajian awal ini menyediakan laporan yang menjurus kepada isu-isu teknikal asas yang berkaitan dengan pencerobohan komputer dan pengkelasannya.

Objektif kajian ini adalah untuk menganalisa dan memahami perlakuan asas aktiviti pencerobohan komputer dan menilai pandangan pengguna mengenai keselamatan komputer serta keperluan pemasangan sistem pengesan pencerobohan.

Analisa adalah berasaskan data yang dikutip dari soal selidik yang dijalankan di dalam organisasi. Dalam proses penyelidikan ini, pengkelasan secara sistematik telah dijalankan terhadap data mengenai aktiviti pencerobohan sebagai kaedah menganalisa data. Ciri-ciri pengkelasan utama termasuklah penceroboh, objektif penceroboh, alat yang digunakan, cara capaian dan hasil dari pencerobohan.

Hasil dari kajian ini termasuklah pengkelasan terhadap pencerobohan dan dapatan baru mengenai gelagat penceroboh yang dipanggil serangan dalaman yang amat merbahaya tetapi merupakan ancaman keselamatan yang selalu diabaikan. Kajian ini juga menjelaskan pandangan pengguna berkenaan perlaksanaan sistem keselamatan di dalam organisasi serta keperluan sistem pengesan pencerobohan.

ABSTRACT

There is a rapidly increasing dependence on services provided by these computer systems and networks but most computerized information systems we use in our everyday lives provide very little protection against hostile manipulation. This preliminary study presents report focused on the fundamental technical issues of computer intrusion and their taxonomy.

The objective of this study is to analyze and understand the nature of intrusion activity and perception of the user regarding the security policy and the implementation of intrusion detection system in the organization.

The analysis is based mainly on the data from questionnaires given to the staff in the organization. Throughout this work, systematic categorization of data that related to intrusion has been used as the main method for data analysis. The main categorization of intrusion includes the intruder, their objective, tools used, access method and result of intrusion.

The results of this work include the taxonomy of the intrusion and new findings about the behavior of so-called insider attackers; a dangerous but sometimes neglected security threat. It also explores the perception of the user regarding security implementations and requirement of intrusion detection system in the organization.

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CHAPTER 1

INTRODUCTION

Advances in computer and communication technologies have resulted in highly integrated distributed systems that allow users to access information and resources from all over the globe. With many access points, computer system can easily be hacked or attacked. Rapid increase in the number of reported intrusions, break-ins and computer thefts results in an ever-increasing need for applying effective computer security measures such as firewall system, intrusion detection system and better security policy.

Despite the undeniable progress made in network and computer security over the past few years, network devices and computers are still vulnerable from inside attack as well as outside attack. Today, when more and more of the valuable assets of an organization are in the form of information stored in computerized information systems, the security of the systems has become a critical issue.

However, little attention was given to security issues in the design of most systems that are in use today. As a matter of fact, people who should have

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