



Thesis Title	A Security System Based on Firewall and Network Intrusion Detection
Research Field	Network Security
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Abstract	
<p>One of the traditional bastions of security in a computer network is the firewall. Whilst only a single element of a secure network topology, they are a vital feature which allows some amount of network traffic filtering at security perimeters in an organization. Another useful element has been the Intrusion Detection System. The IDS is used as an information resource – to inform system administrators when possible problems are occurring on their systems, and as such normally requires administrator intervention in order to deal with the problems that are occurring. However, as networks have become more complex and users have had increasingly more complex requirements.</p> <p>This thesis proposes a security system that integrates Intrusion Detection and firewall technologies in an easily extensible and controllable format that can protect versatile user files. There are two types of intrusion detection system used; honeypot and file backup watcher. The structure of the application designed in such a way that the intrusion detection is activated only when the firewall has managed the input data. This gives the advantage of prevention of a lot of dangerous attacks coming from the Internet. Being exposed to these attacks and relevant may detection softwares overload the system with information that make the user busy dealing with them. Nevertheless the file backup watcher will watch and make backup copy for the files determined by the user and able to restore them when there are any modifications to the contents of these files</p> <p>The system security has been consolidated by deploying three layers of threat detection and isolation. The use of more than one type of security programs will reduce the possibilities of losing important computer resources. The system has been developed using Visual Basic, version 6.0 programming environment.</p>	
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