Intrussion detection by penetration test in an organization network

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Abstract

This paper presents a study made on network security in an organization's local area network (LAN). Intrusion detection test in a campus network was performed using penetration test methods and the results analyzed. The objectives were to identify different form of network attacks and methods used to capture the hacking. During the study, the risks and attacks caused by hackers to the network were evaluated. The results obtained are seen as a good indicator of the security state of the network. Hence, an organization network that responds well to penetration test can be given a certificate. Such certificate will provide a positive sign and confidence to the network users. The study was conducted in a dynamic situation by doing experiments during different periods of time. The case study was a campus LAN, The network administrator permitted network information like Internet protocol (IP) address to be gathered and analyzed and to performed the penetration test that enabled , hackers and attackers methods to be dentified. It was realized that 90% of network the users has no fear of the network security risk inspite of the finding that network security rating of the case study is at 50 percent**.**

Keywords: local area networks; security of data; telecommunication security; testing