

A Study on Abnormal Behavior Detection in BYOD Environment

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Abstract : Advancement of communication technologies and smart devices in the recent times is leading to changes into the integrated wired and wireless communication environments. Since early days, businesses had started introducing environments for mobile device application to their operations in order to improve productivity (efficiency) and the closed corporate environment gradually shifted to an open structure. Recently, individual user's interest in working environment using mobile devices has increased and a new corporate working environment under the concept of BYOD is drawing attention. BYOD (bring your own device) is a concept where individuals bring in and use their own devices in business activities. Through BYOD, businesses can anticipate improved productivity (efficiency) and also a reduction in the cost of purchasing devices. However, as a result of security threats caused by frequent loss and theft of personal devices and corporate data leaks due to low security, companies are reluctant about adopting BYOD system. In addition, without considerations to diverse devices and connection environments, there are limitations in detecting abnormal behaviors such as information leaks which use the existing network-based security equipment. This study suggests a method to detect abnormal behaviors according to individual behavioral patterns, rather than the existing signature-based malicious behavior detection and discusses applications of this method in BYOD environment.

Keywords : BYOD, security, anomaly behavior detection, security equipment, communication technologies

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