

Security Scheme Under Opensource Software for Accessing Wireless Local Area Networks at the University Campus

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Abstract

Wireless networks provide flexibility, increase in productivity, and savings in infrastructure and are useful in organizations with high volume of mobile device users. The services in wireless networks require mechanisms that guarantee their efficient, secure, and reliable use. A security scheme is designed for accessing wireless local area networks (WLAN) at the campus of a Venezuelan university. The confidentiality, integrity, availability (CIA) information security principles are applied, as well as control objectives specified in ISO 27001. The proposed access security scheme mitigates threats, monitors the use of services, and establishes security parameters for reducing attacks to the network, complying with national laws and internal regulations of the university under study respecting to the use of opensource software based on the National Institute of Standards and Technology.

Keywords

WLAN, security scheme, university campus, opensource software, ISO 27001