

Title of Article : Design and Simulation of a Secure and Scalable Enterprise Network

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.Abstract : For several years, organizations, firms and companies of the world have been in the practice of working on the shoulders of enterprise networks deployed to aid perform their various organizational tasks. However with such a service connected to the internet, security treats have posed to be a giant to the enterprise network communication channels. This security treats have impeded on the goals of network security: confidentiality, authentication and integrity. In this paper I have put together the various services that comprise the enterprise network as a unit, and have structured out security policies such as host web authentication and port security, port security in this context working at a more advanced level. The research work was carried out on Covenant University infrastructure (Senate Building) and the results show that any Clients who tried to connect to the network and initiated http traffic were redirected to the authentication server for verification of credentials, before being allowed on the network and an email alert was also forwarded to the network administrator. The security services did not impede on network performance with the implementation of Multi-Layer Switching (MLS).