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This project focuses on security for designing and enhancing a Small Office Home office network through hardening devices and implementations of intrusion detection systems (IDS) and intrusion prevention systems (IPS). The purpose of doing is to mitigate risks while optimizing capability of the network for users as it is a target for attack from cybercriminals.

**Abstract**

A Small Office Home Office (SOHO) network is a type of business network with a typical user amount being around ten individuals or lower. This means that this type of network is not going to have a dedicated IT department. SOHO networks are at risk to be under attack from cybercriminals due to default configurations and weak policies. This project focuses on security for designing and enhancing a Small Office Home office network through hardening devices and implementations of intrusion detection systems (IDS) and intrusion prevention systems (IPS). The purpose of doing is to mitigate risks while optimizing capability of the network based on the confidentiality, integrity, and availability or CIA triad, while also providing a monitoring system on site in order to spot suspicious behavior on the network.