

Department of Information Technologies

SYNOPSIS

"Technologies and systems for network defense (Sofia University Network's security audit)"

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The cost of reported computer and network security breaches at enterprises, schools, and government organizations has risen dramatically during the last couple of years. Hints and detailed instructions for creating exploits to break into networks and computer systems are becoming more easily available on the Internet, consequently requiring network security professionals to carefully analyze what techniques they deploy to mitigate these risks. For ensuring high level of network security, it is necessarily every organization to create its own security policy, as well as to perform network security audits on a regular basis.

This graduation work aims to introduce the reader to the "network security" term and it's requirements, then to analyze the potential network security issues and problems, the most often reported network attacks and methods for detecting and preventing them. Here is also discussed the technologies and systems used by network security engineers, then a complete and individual assessment of the security in Sofia University Network is done. After performing the audit, a summary conclusion and result analysis is made and recommendations for further improvement of the network security are given.