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Risk Assessment Checklist/Program for Perimeter Network Infrastructure (Switches, Routers, Firewalls, VPNs, Wireless LAN, Network Access Control)

By

Nwabueze Ohia

Editor: Nwabueze Ohia
Designer: Nwabueze Ohia

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Practitioners and researchers in this industry must always rely on strong personal judgment and experience in evaluating and applying information and methods being acquired from this book while also exercising professional due care and caution to ensure their safety and those of others, as well as parties for whom their own professional responsibility.

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About the Author

A Certified Information Systems Auditor (CISA), PECB certified Lead Auditor in ISO 27001 (Information Security Management System), ISO 22301 (Business Continuity Management System), ISO 20000 (IT Service Management System) and Lead Cyber Security Manager (ISO 27032), Nwabueze Ohia is a seasoned Information Assurance and Cyber Security professional/expert with over 12 years working experience in consulting and full time employment. He has worked in the banking sector in Nigeria as IT auditor and information security practitioner with experience spanning information systems audit and assurance, information/cyber security, technical infrastructure security/assurance, system controls analyst, IT risk analyst, data analyst and consultant. He is an expert in the development of audit work programs, checklists and risk assessment template that conform to Institute of Internal Auditors (IIA) standard, which practitioners has found useful in the discharge of their assurance functions. With his rich knowledge of the financial services sector and underlining security/controls required of systems and IT infrastructure in the sector, his eBooks, educational and professional materials, which are result oriented and tailored towards addressing information security issues have assisted practitioners within Nigeria, Sub-Sahara Africa and beyond in addressing risk in the ever changing and dynamic control environment. Beyond the financial services sector, practitioners in other industries such as insurance, telecommunication, web hosting, Internet service providers, SaaS, cloud service provider, distribution & supply chain management, shipping, oil & gas, etc., have leveraged on materials produced by Nwabueze to excel in their endeavors.

Nwabueze Ohia has written several educational and professional materials in the field of information assurance, information/cyber security and technical infrastructures, which are published on his website (<http://oxleyconsults.com.ng>). In addition, he has four books to his credit, which he self-published on Amazon Kindle Book store as well as other ebook platforms across the globe. His wealth of experience in information assurance and cyber security consulting as well as working in financial service sector are brought to bear on all his published materials/eBooks as an experience professional with practical/hands-on perspective. He holds a Higher National Diploma (HND) in Electrical/Electronics

Engineering (Telecommunications) from Federal Polytechnic Nekede Owerri, a Bachelor of Technology (B. Tech) degree in Information Management Technology (IMT) and recently completed Master of Science Degree (MSc) in Information Management Technology (IMT) from Federal University of Technology Owerri, Imo State. This is in addition to series of professional/technical training courses he has attended in the course of his career, which endorsing him as a subject matter expert in his chosen profession.

Nwabueze Ohia is passionate about giving back to the internet and the knowledgebase of his chosen profession, having greatly been enriched by same, which he has demonstrated through several writeups, articles and professional papers published on his website for other to read and be enriched including guest posting on other professional web platforms. He finds joy and fulfillment in extending helping hands to the needy and the downtrodden of our society. His hobbies are traveling round the world, soccer, lawn tennis and above all, web application development/programming. Born in 1983 to Nigerian parents from the Eastern part of the country, he is happily married with a daughter.

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Preface

By Nwabueze Ohia

The perimeter network of an organization is the border line of its security. A breach of the security of the network can spell doom for any organization and could lead to total compromise of its network with impact on the confidentiality, integrity and availability of its information assets. Several network devices such as routers, switches, firewalls, intrusion prevention system (IPS), intrusion detection system (IDS), wireless controllers and access points, network access control system (NAC & TACACS+), links, are deployed for the smooth running of the network (i.e. routing of traffic from source to destination) while also ensuring network security. Baseline security configuration as well as standard operating procedures (SOP) for Administrators of the network are also required to ensure good security practices as well as security of the network. Also, original equipment manufacturers (OEMs) prescribe security baselines on how to ensure their devices are adequately protected while in use.

While these network devices ensure continued availability of services and solutions running on the network, there equally exist inherent vulnerabilities/risks associated with their use in addition to those available controls are not able to address (residual risk). Much of the risk/vulnerabilities are due to poor/substandard configurations, people (operators/administrators) supporting the systems and external factors (hackers) due to connection/exposure to the internet. As such, it important to promote good security practices and ensure that standard baseline configurations are enforced in the network.

The risk associated with network infrastructure would vary with organizations and largely depends on how the infrastructures were deployed. As such, it is important that personnel with security oversight responsibilities on network infrastructure put in context organization's uniqueness in terms of its information security policies, procedures, security baselines, regulatory and legal requirements while conducting their security assessment or reviews to know how best to protect them.

This book is therefore a documentation of risks and vulnerabilities associated with network infrastructure (switches, routers, firewalls, wireless controllers, IPS/IDS,

NAC/TACACS), threats and threat agents that could exploit those weaknesses, their impact on the organization and actions required to mitigate the risks. It serves as a risk assessment checklist/guide for risk assurance practitioners (IT Risk Manager, Cyber/Information Security Analysts, Information Systems Auditors and Systems Control Analysts) and enable them understand as well as identify some of the risks inherent in the network, implications/impact of such risks/vulnerabilities and ways to mitigate them. The book is a risk assessment checklist/program guide for risk assurance practitioners and provides unique/rich database of vulnerabilities/risk, control lapses, process failures and substandard practices associated with network infrastructure. This risk assessment checklist can easily be integrated with popular audit management software such as teammatessolutions or MKinsight.

Intended for organizations desirous of build a risk management program around their perimeter network infrastructure from the ground up or strengthen an existing one. Below is a sample page of the perimeter network infrastructure risk assessment checklist/program. For full access to the document, you can subscribe to our membership plan or purchase the book by click the Buy Now or Add to Cart button below.