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Towards the design of an open source based forensic tool for IP address spoofing attacks

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I P address spoofing attack is a process in which a user or an attacker changes his or her IP address so as to appear as someone else on the network when the victim replies it goes back to the spoofed address and not to the attacker's real address thus making the attack's source tracing difficult for a Forensic Investigator. A network can be polluted through a spoofed IP address. Loss of sensitive data and files, denial of service, document forgery, network poisoning and many more havoc can be caused by IP address spoofing. A network Forensic Investigator is expected to be able to identify criminal activity like IP address spoofing and the people behind the crime, open source based forensic tools can enhance the success rate of the investigator in unraveling the crime and the criminals by providing different forensic models that can be used in the development of new cybercrime investigation tools. This work seeks to introduce open source models for rapid development and building of new cybercrime solutions that can be used as forensic tools in different cases and environment. This is applicable to postmortem investigations, live triage execution, evidence extraction from mobile devices or cloud services and evidence collection or evidence processing from a network. This framework will provide new solutions with the construction of cutting-edge forensics automation technologies to address existing problem of IP address spoofing attacks in cybercrime scenarios.

Biography

Kingsley Chiwuike Ukaoha is currently a Senior Lecturer of Computer Science at the University of Benin, Nigeria and holds a PhD degree in Computer Science from the University of Benin. His research interests are in the areas of Software Engineering, Digital Forensics, E-Learning and Internet-based research. He is the Deputy Project Coordinator of the Forensics Research Group, University of Benin and Member of the following professional bodies; Association for Computing Machinery (ACM); Institute of Electrical and Electronics Engineers (IEEE) and the American College of Forensics Examiners Institute (ACFEI). He has published more than 20 papers in reputed journals and attended several international conferences and workshops.

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