

Future technology: software-defined network (SDN) forensic

ABSTRACT

The software-defined networking (SDN) paradigm has recently emerged as a trend to build various protocols, develop more reliable networks, enhance the data flow controlling, and provide security in a much simpler and flexible way. SDN helps to ease management and handle asymmetric connectivity across various nodes. It solves the problems of network and cloud security and hence provides the best solution for the safety of data on the network. Therefore, we feel the urge to research more and provide the basics of SDN forensics, mention its advantages in network especially in the cloud, and present its elaborate prospects in context with Network Forensic (NF) and Cloud Forensic (CF). In this research article, we explained in detail the NF and CF with emphasis on Network security (NS) and Cloud Security (CS). The paper also provided the various security approaches and categories. Then, an overview of the software-defined networking (SDN) is mentioned. We also discussed the use of SDN in Network Forensic and Cloud Forensic. Furthermore, to aid the SDN forensic, we presented the advantages, challenges, and issues along with future research directions of SDN in network forensic and cloud forensic, and at last, we thus express and explore the need for security in forensic based on the SDN paradigm in the form of a set of suggested recommendations.