

REVIEW ON INFORMATION SECURITY IN HEALTHCARE ENVIRONMENT

Lediona NISHANI , PhD(c) UNYT
Lecturer at Planetary University of Tirana
ledionanishani@gmail.com

Topic: Ethical and practical concerns within nursing and healthcare teaching

Abstract

Information security in the medical systems comprises confidentiality and protection with special concerns for patient's privacy data. Healthcare security must be taken seriously. Healthcare researchers highlight a concerning carelessness regarding security of data, specifically in the healthcare landscape. Portals for patients are not more a "nice to have" but have become necessary; therefore protecting and avoiding data breaches is one of the most significant requirement for the portal systems. Organizations are failing to encrypt mobile devices. Furthermore, healthcare personnel are being naive, negligent, and not careful on handling their devices. This research paper will provide an overview on information security regarding healthcare devices and medical supplies. Another major issue that will be discussed in the next sections is about the most vulnerable categories of healthcare systems that all the community involved has to be aware of. In addition, we are going to sort out the major types of fraud and data leakage techniques affecting data privacy of patients. We strongly recommend in this scientific work that the encryption must be done properly and accurately. A high level of encryption is the appropriate countermeasure against all this promulgation of attacks even in the healthcare domain. In addition, we tackle and discuss the most evident privacy challenges that healthcare domain is posed in nowadays. Finally, in this research paper, we identify evolution of healthcare and some forecasting that might expect to see because of novel cyber techniques on this area. This paper is addressed to a mixture of interested communities, which might be of benefit: nursing community, physicians, IT professionals, security researchers, legal community and above all aimed to healthcare community. In the conclusion section, the paper makes some useful recommendations of exploring and deploying various approaches in many challenging implementation issues. In this research work, are provided significant tips in reinforcing information security while striving towards patient care.

Short Biography

I hold a Bachelor and Master Degree on Telecommunications Engineering at the Polytechnic University of Tirana. My Bachelor thesis consisted of "Modulation and experimenting with Microwave Transmission Systems". My master thesis consisted of "The scientific research of the compatibility between LTE and WiMax technologies in the frequency bands 900 MHz and 1800 MHz". After the University period, I was employed as A Network Solution in a leading company in the Albanian market of fiscal devices (AED). I am currently working fulltime lecturer for three years in a row at Planetary University of Tirana, in Engineering Department and as visiting lecturer in the Albanian University. I have taught specialty courses in Telecommunication Engineering Program just like Computer Networks, Fiber Optics and Network Security. I am currently in the second year of my doctoral studies at the University of New York, Tirana. I expect to complete my PhD degree by September 2015. Regarding the Doctoral Program, my research field of interest are security mobile, security engineering, security on cloud, cyber security etc.