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IoT Security Risk Management Model in Healthcare

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Abstract. Internet of Things or IoT is highly predicted as one of the biggest emerging environment in future to create a simultaneous smart communication between machines or a variety of digital device. IoT not only helps the user to control and monitor collected data but also aid in generating new revenue by identifying new business opportunity and deploying advanced analytics processes. However, there is still a lack of study focusing on the IoT risk management in healthcare whereby most of the study is more towards the implementation of the IoT peripheral itself. Since healthcare information and data are highly confidential, it is important to ensure a secured health IoT application is in place. Thus, the aim of this study is to investigate the IoT risk management aspect in healthcare domain with a particular attention in developing a step by step process of IoT risk management model. Data are gathered from the literature reviews and organised accordingly based thematic analysis on the case study selected. Based on observation conducted, it still does not possess any strong risk management system. From the findings, it is also identified that many hospitals fail to implement a risk management process incomplete set due to poor technology implementation in protecting data and information, lack of clear governance and unclear work process. Lastly, above all a well-defined healthcare business process is the key for any risk management plan It is believe with the existence of strong team (people), reliable application (technology) and systematic hospital workflow (process) it can strengthen in IoT Risk Management in any healthcare agency.

Keywords: Security issues, IoT, Model, Risk Management, Healthcare.