Proposing Encryption Selection Model for IoT Devices Based on IoT Device Design

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Abstract—**The shortage of resources and services coincides with the expansion of urbanization. Modern technology utilization has become necessary to compensate for this shortage and to provide services which give urban residents a good life. The Internet of Things is one of the most reliable technologies for solving such problems because its devices are capable of collecting data via connected sensors. The problem of securing this data from cyberattacks increases because it contains important information about people. In addition, studies have also shown that most of the collected data is going to be stored in third-party databases in coming few years. For several reasons, designers are not able to adopt encrypt everything approach within IoT device which provides significant protection of collected data. In this research we are going to discuss the challenges which designers faces during the implementation of data encryption within their device as well as have a look on the present support. A model is proposed at the end of the paper to address designer discussed issues and challenges.**

Index Terms— IoT, System Security, IoT Device Security, Cryptography, Machine Learning, System Design.

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