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Security in Internet of Things: Mitigating the Top Vulnerabilities

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Abstract
With over 6 billion devices connected and transitioning from Do It Yourself to an enterprise model, Internet of Things (IoT) has to address several key challenges, among which the security and privacy have been identified as crucial. In the first part of the paper, the main problems regarding Internet of Things are presented. The top vulnerabilities of IoT – by their technical and business impact – are identified and mitigation measures are proposed in the second part of the paper . Finally, several European projects that have in their scope the security and the privacy of IoT and map their solutions to IoT vulnerabilities are analyzed.

Keywords: Internet of Things, IoT, Security, Privacy, Protocols, Architecture, vulnerabilities, Cloud Computing, Challenge, Future Internet, Internet of Everything

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