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INTERNET-OF-THINGS SECURITY AND VULNERABILITIES: IOT SECURITY, IOT TAXONOMY

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ABSTRACT

Today, our world includes billions of sensors and computing devices that are continually sensing, collecting, consolidating, and analyzing significant amount of our personal information. Such information may include our location, contact list, browsing patterns, and health and fitness information. Many researches focus on IoT security and privacy, but the countermeasures presented in these research often aim at a particular type of attack. Therefore, it is necessary to consider the IoT architecture as a whole and provide holistic protections. Furthermore, the technologies and devices themselves are highly heteroge- neous. This makes their management a difficult and com- plex enterprise.

KEYWORDS: IoT security, IoTtaxonomy ,Vulnerabilities

REFERENCES

1. Iqbal MA, Olaleye OG, Bayoumi MA (2017) A review on Internet of Things (IoT): security and privacy requirements and the solution approaches, Global Journal of Computer Science and Technology

2. Arias O, Ly K, Jin Y (2017) Security and privacy in IoT era. In: Smart Sensors at the IoT Frontier. Springer, pp 351–378

3. Halperin D, Heydt-Benjamin TS, Ransford B, Clark SS, Defend B, Morgan W, FuK, KohnoT, Maisel WH (2008) Pacemakers and implantable cardiac defibrillators: software adio attack sandzero- power defenses. In: IEEE Symposium on Security and Privacy, 2008. SP 2008. IEEE, pp 129–142

4. Checkoway S, McCoy D, Kantor B, Anderson D, Shacham H, Savage S, Koscher K, Czeskis A, Roesner F, Kohno T et al (2011) Comprehensive experimental analyses of automotive attack surfaces. In: USENIX Security Symposium San Francisco

5. Ray S, Peeters E, Tehranipoor M, Bhunia S (2017) System-on- chip platform security assurance: architecture and validation. In: Proceedings of the IEEE

6. Ray S (2017) System-on-chip security assurance for IoT devices: cooperations and conflicts. In: IEEE Custom Integrated Circuitsx Conference