Data Privacy and Security in the Age of IoT A Comprehensive Study on Information System Vulnerabilities

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ABSTRACT

In the era of the Internet of Things (IoT), data privacy and security issues have become a primary concern in information systems. This research aims to investigate the underlying vulnerabilities of information systems concerning data privacy and security in the context of IoT. The research methods employed include literature surveys, case analyses, and reviews of best practices in data protection. The findings highlight several key vulnerability points, including weaknesses in credential management, network attacks, and deficiencies in data encryption implementation. Moreover, the findings indicate that despite advancements in security technology, significant gaps still exist that can be exploited by unethical parties to access users' IoT personal data. In conclusion, data protection in the context of IoT requires a holistic approach involving preventive measures, detection, and rapid response to evolving security threats. This research underscores the importance of data security education and awareness among IoT users and the necessity of collaboration among government, industry, and society to address these challenges.

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