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Title: The Advancement of the Internet of Thing

Abstract

In today's global economy, business cannot survive by making decisions through corporate own database. They must seek data from external sources, such as economic datasets, websites, social media, and related publications. Another important data source is the Internet of Things (IoT), in which sensor's data can be generated and collected for corporate decision-makings and analyses. Also, data can be generated and collected from external entities and sources, such as competitors, market, regions, nation, and global sources. These data can be saved in corporate or cloud computing service provider's storage devices. Big data is the technology to handle such a huge and complex computing environment. The capability of big data makes it an emergent IT area.

Big data computing environment involves heterogeneous technological platforms, networks, programming languages, and data types to be connect together. The use of open source systems and programs such as Hadoop and the Internet causes the concern of cybersecurity attacks. Therefore, the understanding of big data security shall be the first step of adopting big data technology in organizations.

The purpose of this study is to identify the technological frameworks of big data and then to discover their embedded security issues. We also propose directions for fixing such security problems. We wish this study could make a vital contribution to cybersecurity education and research.

This paper first discusses the implication of big data and its applications and analytics. The next section discusses big data's framework and associated technologies. After that, this paper discusses the technology of cloud computing and its security issues. Also, the technology of IoT and its security issues is analyzed next. The next section discusses the data security issues. It then summarizes the big data security issues. The next section provides ways of resolving big data security issues. A conclusion is provided at the end of this study.