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Internet of Things Security in Cloud: A Review on Fog Layer Security

Kimeu, Japheth

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Internet of Things Security in Cloud: A Review on Fog Layer Security

Japheth Mumo Kimeu; Mary Samwel Mtoi; Janeth Paul Riwa; Ramadhani Sinda

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Abstract

Cloud computing in IoT systems enables flexible design with distributed data, infrastructure, and resources accessible from diverse industrial settings. The tremendous rise of the Internet of Things (IoT) has posed numerous issues to the centralized cloud computing architecture which are solved by fog computing. A passive rogue fog node acting as a man-in-the-middle attack poses a significant security vulnerability in the cloud fog layer, compromising data confidentiality and making identification difficult. This survey paper proposes an Intrusion Detection System (IDS) to protect the fog layer from the Man-in-the-Middle Attack (MitM/MITM/MiTM) which is present in the rogue node. Literature review methodology is employed to study various scientific articles providing a comprehensive survey of the existing security and privacy concerns in cloud computing.

Keywords

Surveys; Cloud computing; Privacy; Data privacy; Intrusion detection; Distributed databases; Computer architecture