Secure Data Retrieval based on Attribute-based Encryption in Cloud

Abstract

Cloud computing plays an important role in the development of IT industry. It can help a small organization to headway their business. An organization can progress from small-scale industry to large-scale industry. "Cloud" basically internet-based data, network, resource storage. Meanwhile, security, integrity, confidentiality requirement need must be achieved by cloud implementation. Attribute-based encryption policy provides efficient encryption of data. Hierarchical implementation implies that an organization is able to assign different privileges to users according to their role, using a top-to-bottom approach. Cloudsim has made virtual environment of cloud for developers. It connects to virtual resources according to user requirement of network resources. This paper describes the implementation of Hierarchical attribute-based encryption scheme on cloudsim tool. Implementing attribute-based encryption where rijndael algorithm used to encrypt data. Also paper include efficiency of encryption and decryption scheme used in implementation.
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Index Terms

Computer Science  Security

Keywords

Encryption, Security, multiuser access, Ciphertext Policy Attribute based encryption (CP-ABE), Cloudsim, cloud computing, data sharing