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# Fog-Based Storage Technology to Fight with Cyber Threat

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## Abstract

The recent emergence of cloud computing has drastically influenced everyone's perception of infrastructure architectures, data transmission and other aspects. With the advent of both mobile networks and cloud computing, the computationally-intensive services are moving to the cloud, and the end user's mobile device is used as an interface to access these services. However, cyber threats are also becoming various and sophisticated, which will endanger the security of users' private data. In traditional service mode, users' data is totally stored in the cloud, they lose the right of control on their data and face cyber threats such as data loss and malicious modification. To this end, we propose a novel cloud storage scheme based on fog computing. In our scheme, user's private data is separately stored in the cloud and fog servers. By this way, the integrity, availability and confidentiality of user's data can be ensured because the data is retrieved from cloud as well as fog, which is safer. We implement a system prototype and design a series of mechanisms. Extensive experiments results also validate the proposed scheme and methods.

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