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A DATA SECURITY LIFECYCLE FOR SECURITY OF DATA IN CLOUD COMPUTING

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Abstract

Cloud computing emerges as one of the hottest topic in field of information technology. Cloud computing is based on several other computing research areas such as HPC, virtualization, utility computing and grid computing. Data security has become one of the core problems of cloud computing. Many security solutions have been proposed, however, most of them only focus one stage of data life cycle, such a storage stage, which is not enough to solve cloud data security problem as threats exist in whole data life cycle. In this paper, we indicate that the cloud data security problem should be figure out from data life cycle. Secure delivery of data to and from the cloud is however a serious issue that needs to be addressed. After detail analysis of data life cycle model and data security threats, a suggested design process of data security solution is given. The proposed idea is simple but important to create the complete security solution to data security in cloud. The proposed model give idea of mapping the possible data flows, including device and different physical and virtual location, and at which phases in its life cycle data can move between those locations. We present in this paper a Data Security Lifecycle for evaluating and defining cloud data security strategy.

Keywords: Data Security Lifecycle, Security Challenge, Security Issues,