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Cloud Security: Challenges and Solutions

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Abstract: Cloud computing is the delivery of shared computing services—including servers, storage, databases, networking, software, analytics, and intelligence— over the Internet ("the cloud") to offer faster innovation, flexible resources, and economies of scale. To simplify, Cloud computing is on-demand delivery of IT resources. Many organizations are stuck in the conundrum of whether to cloudify or not to cloudify, mainly due to concerns related to the security of enterprise sensitive data. Removing this barrier is the pre-requisite to fully unleash the tremendous potential of cloud computing. The revolutionary principle of 'Shared Resources' is the cause of concern from Information Security point of view. Confidentiality, Integrity, Availability, Authenticity, and Privacy are essential concerns for both Cloud providers and consumers as well. Security concerns have given rise to an active area of research due to the many security threats that many organizations have faced at present. This seminar report provides a concise study on data security and privacy protection issues associated with cloud computing. Then this report discusses some current solutions and finally describes some measures for top identified threats in data security and privacy protection issues in cloud.

Keywords: Cloud Computing, Cloud Security, Confidentiality, Integrity, Availability, Authenticity, Privacy

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