Towards Resilient Cloud Computing through Cyber Risk Assessment

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Abstract : Cloud computing is one of the most widely used technology which provides opportunities and services to government entities, large companies, and standard users. However, cybersecurity risk management studies of cloud computing and resiliency approaches are lacking. This paper proposes resilient cloud cybersecurity risk assessment and management tailored specifically, to Dropbox with two approaches:1) technical-based solution motivated by a cybersecurity risk assessment of cloud services, and 2)a target personnel-based solution guided by cybersecurity-related survey among employees to identify their knowledge that qualifies them withstand to any cyberattack. The proposed work attempts to identify cloud vulnerabilities, assess threats and detect high risk components, to finally propose appropriate safeguards such as failure predicting and removing, redundancy or load balancing techniques for quick recovery and return to pre-attack state if failure happens.

Keywords : cybersecurity risk management plan, resilient cloud computing, cyberattacks, cybersecurity risk assessment
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