Abstract

"Cloud Computing", a new wave in the Internet revolution, transforms the kind of services provided over the Internet. The Cloud Services can be viewed from two perspectives, one as Cloud Service Provider and the other as Cloud Service Consumer. Assurance of security in the Cloud Service is a major challenge for the Providers, as it's the biggest concern for the Consumers to opt for the service, which in turn decides the prospects of the business in Cloud Service. The Security can be administered in the Cloud at various levels and for several types of attacks. The threats and the attacks on the Cloud service can be common prevailing attacks in the internet or can be cloud specific. This paper deals about the threats and the counter measures of the prevailing DDoS attacks on the Cloud Environment as well as the Cloud Specific Vulnerabilities to these attacks. In specific, HTTP and XML based DDoS attacks on the cloud service are experimented under proposed security framework for EDoS Protection. A Cloud Service was hosted on Amazon EC2. The Service was targeted by HTTP, XML DDoS attacks from several nodes, which lead to the scaling of the service by consuming more Amazon EC2 resources, which in turn lead to Economic Denial of Sustainability to the Cloud Service under attack. Thus this paper explores the transformation of traditional Distributed denial-of-service (DDoS) attack into cloud specific Economic Denial of Sustainability (EDoS) attack.
Economic Denial of Sustainability (EDoS) in Cloud Services using HTTP and XML based DDoS Attacks

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Mechanism

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Index Terms

Computer Science Wireless Networks

Keywords

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