Abstract

Any activity aimed at disrupting a service or making a resource unavailable or gaining unauthorized access can be termed as an intrusion. Intrusion detection systems (IDSs) play a key role in detecting such malicious activities and enable administrators in securing network systems. The cloud computing platform gives people the opportunity for sharing resources, services and information among the people of the whole world. In private cloud system, information is shared among the persons who are in that cloud. For this, security or personal information hiding process hampers. In this paper we have proposed new security architecture for cloud computing platform. This ensures secure communication system and hiding information from others by authentication using shared secret key MD5 and provides security using Hidden Markov Model. This structure can be easily applied with main cloud computing features, e. g. PaaS, SaaS and IaaS. Our work mainly deals with the security system of the whole cloud computing platform.

References

- Kawser Wazed Nafi, Tonny Shekha Kar, Sayed Anisul Hoque, Dr. M. M. A
Intrusion Detection and Prevention System for Cloud Simulation Environment using Hidden Markov Model


- R Rangadurai Karthick, Vipul P. Hattiwale, Balaraman Ravindran &quot;Adaptive Network Intrusion Detection System using a Hybrid Approach&quot; 978-1-4673-0298-2/12/$31.00 c 2012 IEEE.


- Kashif Munir and Sellapan Palaniappan &quot;Security Threats/Attacks Present in Cloud Environment&quot;.


- Aerohive Network white paper &quot;The Benefits of Cloud Networking&quot; Enable cloud networking to lower IT costs & boost IT productivity.

- Veselina Jacheva &quot;About Some Applications of Hidden Markov Model in Intrusion Detection Systems&quot; International Conference on Computer Systems and Technologies - CompSysTech&apos;06.

- Issa M. Khalil, Abdallah Khreishah and Muhammad Azeem &quot;Cloud Computing
Intrusion Detection and Prevention System for Cloud Simulation Environment using Hidden Markov Model.

Index Terms

- Computer Science
- Security

Keywords

- Cloud Computing
- Intrusion detection and prevention system
- MD5 Hashing
- Hidden Markov Model.