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Research Paper

EFFECTIVE FIREWALL IMPLEMENTATION IN CLOUD OVER VIRTUAL ENVIRONMENT USING SPACK FREWALL RESTRICTION

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Security issues in cloud concerns and mainly associated with security issues faced by cloud service providers and the service issues faced by the cloud customers. In the existing system, providing security in cloud opt a huge amount of pay based on the service of usage by the customers in cloud environment. The extensive use of virtualization in implementing cloud environment brings unique security providence for the cloud customers and all other reseller's and subscriber's of a public cloud service access. In the proposed system, an effective firewall security has been implemented for blocking and filtering the unwanted requests coming from the clients before the request approach the virtual machine. During the request processing, if the user requests the high level of data from the cloud, then based on the payment made by the cloud user, they can use and access the data's from the cloud server.

INTRODUCTION

Cloud computing is one of the most emerging technologies which plays an important role in the next generation architecture of IT Enterprise. It has been widely accepted due to its ability to reduce costs associated with computing while increasing flexibility and scalability for computer processes. An effective firewall security has been implemented for blocking and filtering the unwanted requests coming from the clients before the request approach to the virtual machine. Security issues in cloud concerns and mainly associated with security issue faced by cloud service providers and the service issues faced by customers. Security issues in cloud concerns and mainly associated with security issues faced by cloud service providers and the service issues faced by the cloud customers.

In the proposed system, an effective firewall security has been implemented for blocking

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and filtering the unwanted requests coming from the clients before the request approach the virtual machine.

EXISTING SYSTEM

- In the existing system, providing security in cloud option is a huge amount of pay, based on the service of usage by the customers in cloud environment.
- The extensive use of virtualization in implementing cloud environment brings unique security providence for the cloud customers and all other reseller's and subscribers of a public cloud service access.
- The request raised by client to the cloud server by stopping unwanted request by firewall.
- The unwanted request will be stored in virtual machine not raised to cloud server.

DISADVANTAGE

1. Unauthorized user can able to access cloud data, which is the major drawback.
2. High payable cloud charges.

Proposed System

- In the proposed system, an effective firewall security has been implemented for blocking and filtering the unwanted requests coming from the clients before the request approach the virtual machine.
- During the request processing, if the user requests the high level of data from the cloud, then based on the payment made by the cloud user, they can use and access the data's from the cloud server.
- The MAC (media access control) addres, IP address and system information will be blogged If an unauthorized or unsolicited person trying to access.
- Fast computing
- Highly authenticated user only can access the information.
- The user have to pay if the user want high level data.

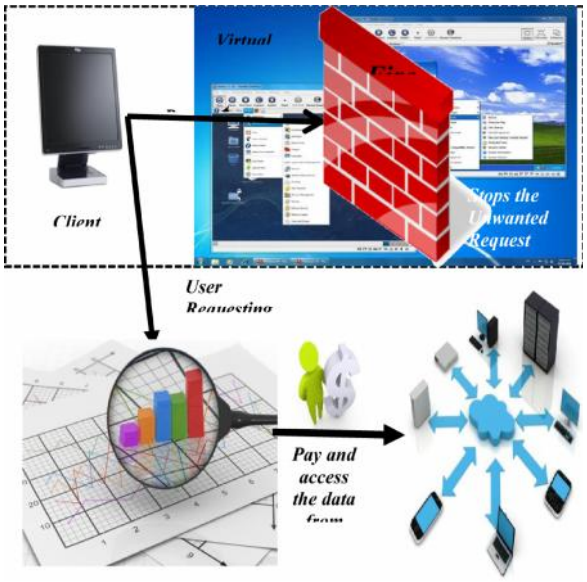
ADVANTAGE

1. Virtual firewall provides enhanced level of security in user level access.
2. Highly authorized user alone able to access.

Explanation

The client system request to the firewallto access the information in the cloud. If the request came from the valid user means, firewall forward the request to virtual machine. At virtual machine the spack firewall restriction algorithm is used for validating the request once again.If the request came from the invalid user means, the firewall stops the request

Figure: Proposed Architecture



before the request approach. The virtual machine and blocks the ip address,mac address and system information of the invalid user. If the user wants high level data means, he can pay and access the high level data from cloud.

LITRATURE REVIEW

Architecture of Virtual Machines

- In this paper, the author discussed about the cheating problem in VM and extended VM. They've considered the attacks of malicious adversaries who may deviate from the scheme in any way.
- This paper proposes three cheating methods and applied them on attacking existent VM or extended VM schemes.

Demerits

- The major flaw in this paper is relevant towards implementation. The author have proposed a systematic way of issues around the virtual machine. No suggestions/ Experimental verifications were provided towards improving the security.
- Overhead of the proposed technique is near optimal in both contrast degression and pixel expansion.

Controlling High Bandwidth Aggregates in the Network

- This paper provides a bandwidth in the network concept for strongest secure systems.
- Zero truncation of the pixel value is an added advantage in this project.
- The bandwidth is retrieved by obtaining the difference in the pixel value from the closest predefined value (zero truncation). These numbers will now define the saved bit and will form the cipher text.

Demerits

- Truncation of multimedia content in this project is one of the major drawback.
- This paper emphasize the usage of jpeg file and it remains a major drawback if in case of using different image types. This paper didn't explain the impact of using other image types.

Enhanced Privilege Separation for Commodity Software on Virtualized Platform

- This paper classifies the virtual image retrieval into text based and content based, including the newly growing ontology based virtual image retrieval system as one focus.
- Semantic based virtual image retrieval is an outstanding technique in retrieving the virtual images from the image database.

Demerits

- Since it's a survey paper, the rule base and fuzzy inference specified in the semantic based virtual image retrieval is not clearly explained.
- Most of the things specified in this paper is concept based and there is no clear cut algorithm or specifications related to weight assignment operator, feature extraction and access formalities on image databases.

Getting Started with Cloud Computing Amazon Ec2 on Red Hat Enterprise Linux

- This paper provides a basic analysis of a cheating problem in the, and present the cheating method applied it to attack on the Ec2.

- Here is the list of points introduced in the paper: (a) each participant can't gain any useful information from his shares, (b) each pixel has the same number of black and white sub pixels in the secret share and in the verification share, (c) one's verification image will be recovered by stacking of his verification share and the secret share, (d) the secret image can be revealed by stacking all the secret shares.

Demerits

- This paper didn't dealt with the performance of the system and it provides a mathematical approach with formulas. But the author didn't provide an exact statistics for the same.
- No clear inputs on the sub pixel division in the project.

Self-Service Cloud Computing

- Cloud computing is at an early stage, with a motley crew of providers large and small delivering a slew of cloud-based services, from fullblown applications to storage services to spam filtering.
- Such shares are such that only qualified subsets of participants can "visually" recover the secret image.

Demerits

- A forbidden set of participants cannot gain any information in deciding whether the full-blown applications was white or black.

CONCLUSION

In the Projected System, a good firewall security has been enforced for obstruction and filtering the unwanted requests coming back from the purchasers before the request approach the virtual machine. During the request process, if the user requests the high level of knowledge from the cloud, then supported the payment created by the cloud user, they will use and access the data's from the cloud server. The MAC (media access control) address, science address associated system data are going to be blogged. If an unauthorized or unsought person attempting to access.

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