

# Model to Create Virtualization of cloud Server using Hypervisor based Technology

Mohammad Istekhar, M.Phil (IT)  
Research scholar, Dr. C.V. Raman  
University Bilaspur, kota (C.G.) India,  
Alam2611988@gmail.com

Dr.K.N Singh, Asst. Professor,  
Dr. C.V. Raman University Bilaspur  
(C.G.), Kota India,  
knsingh.ggv@gmail.com

Suraj Prasad keshri, Asst. Professor,  
Dr. C.V.Raman University, Kargi road,  
Bilaspur, Kota (C.G.) India,  
suraj.softtech11@gmail.com

**ABSTRACT:** - In the session 1999 to 2003 VIRTUAL MACHINE, how virtualization work in the x86 platform. There is a nothing to impossible to creation of virtual machine. It should be possible to solve the problem of thought virtual server. This is good technique for combine to General server and virtual server using digital translator and directly run on preprocessor operating system .The system that allowed multiple guest operating system to deploy in fully Execution on the same server. These techniques are used to provide a security of cloud data of different multinational companies' .The cloud hacker or unauthorized user can hack the data from private networks. This paper we can discuss to create virtual web network or virtual web server. This is a setup of server layer technique. It is very high cost of setup but it is very efficient to web spacing. It should be complex but which method is used for proper security purpose. In our paper is a based on Review technique but this idea is might to trust. The hypervisor is medium of communication between cloud server to virtual server and hardware machine operating system.

**KEYWORDS:** - Algorithms, Cloud Security, Cloud Architecture, Data Protection, Virtual Machines, hypervisor.

## I. INTRODUCTION

The Cloud virtual server is a network environment focused on pure security of cloud computing. Therefore the cloud machine is a secure of virtual machine

Resources. The Cloud server provider used to virtualization technology. Similarly the multiple cloud servers can secure privacy in different cloud virtualization environments. The every server has hosted in the different machines with physical clouding environment. The virtual cloud machine performance is very highly scalable connecting to another resources such as storing a data base server. The clouds computing, people paying on what are used and does not pay on local resources like that storing data base information's and infrastructure. The virtual of the application relieve such that notable base management. The maintenance of S/W update and other configuration is managed by virtual cloud server. The machines operate to task automatically.

## II. THE VIRTUAL SERVER COMPONENTS

The Virtualization is one of most important method that make cloud virtual network. The Virtual server is Techniques to help us to Information Technology. The company optimizes operating system applications and its performance in manner of its cost-effective. The shared of any type of applications sending that cause securities is very difficult. The virtual machine to getting result in significantly the money is saved. There are different phrases of virtual server referred software components like that a physical components DNS they help to display on the platform of operating system and runs its application. The OS's on a virtualization server machine is called host OS's. In the OS's layer is called virtual machine monitor manager (VMMM). They

create controlling to all virtualization servers in virtual environment. The hypervisor is virtual server machine technique they allow multiple OS's.

These hypervisor technique represent such that host OS's in form of virtual machine cloud/server and its environments are executed in host OS.

### III. THE VIRTUAL SERVER

#### APPROACH

In the traditional method to consist of physical server connect by a physical circuit. The IT Company can get the detail of IT about its network congestion go to the virtual servers from that circuit environment. The phases of informatics data server can't understand the problem from a virtual circuit. The virtual circuit has are link to the physical circuit and physical NIC chip when attached to Virtual server. The result to oversight of the congestion flow between Virtual cloud server to physical phases of securities its performance. There are many approached to virtualize between how to reach control of virtual cloud server.

### IV. REVIEW OF LITERATURE:-

**The OS's Based Virtual cloud server:-**This is approached to virtualized by a host OS's that support more isolated and virtual host Operating System on a multiple cloud server machine with its advantages to all resources on the verity of OS's and kernel. The gust OS's viewed and it has controlled our Virtual Machines server (VMS). Given the final value is the cloud computing attacker controlled our all VMS's that are already exist and it will be establish in future requirements.

#### 4.1 The App's Based Cloud Virtualization: -

The app's bases virtual cloud that gusts in top of the hosting OS's. This virtual cloud apps emulate to every VMS's content over host OS's and related app's. The

virtual cloud structure can't use to common types of commercial environment.

#### 4.2 The Machine Hypervisor Virtual cloud:-

The machine hypervisor is a technique available uses of booting time of system controlled. This technique used to share of machine resource crossed to multiple VMS's. The structure of VMS's is privilege partition table viewed and controlled by Virtual cloud server. The virtual machine hypervisor has a multiple point's of failure of cloud attachment. If the virtual server of hypervisor machine has crash then the spoofed gain control are under control to attacker control.

#### 4.3 Hypervisor Security:-

**The cloud virtual machine security,** in the several cloud Virtual server then each has independent securities zone. There are can't accessed from another virtual cloud server then have an Own zone. The machine hypervisor is a own securities zones and it should be control people for anything within virtual cloud hosts.

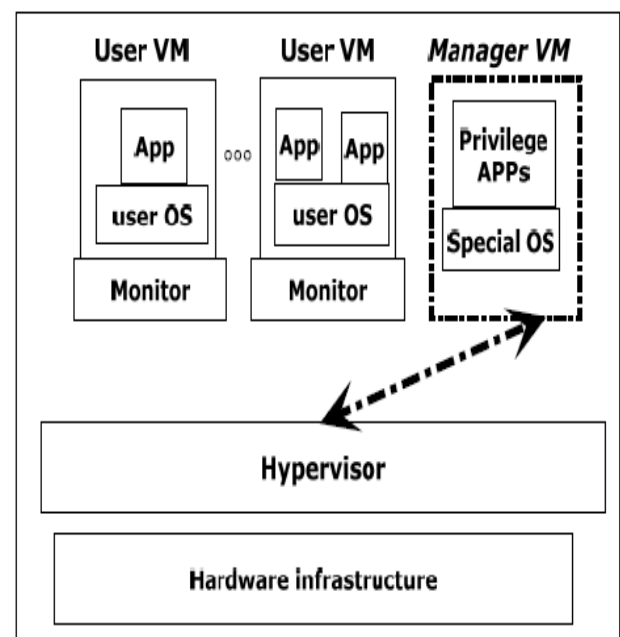


Figure:-Hypervisor-based Virtualization approaches

**V. THE REASON BEHIND STUDY:-**

**5.1 Benefits and weakness of virtual cloud**

**hypervisor base server:** - The virtual cloud hypervisor mechanism its abilities to managed database resource. The architecture of virtual cloud Hypervisor bas technology is the good choice of implement's method to achieve a secure virtual cloud environment.

- A. The cloud machine Hypervisor controlled to the hardware. The cloud machine Hypervisor technique can act as well as network firewall.
- B. The cloud Hypervisor is implementation of the host OS's server in the cloud machine structure which mean if the attacker passed the securities of server in the host OS's then cloud hypervisor can detect it.
- C. This cloud virtual hypervisor is use to cloud server layered of abstraction to isolated the virtual cloud environments from the machine hardware underneath.

There are four types of virtual cloud deployment

- I. Private virtual cloud
- II. Public virtual cloud
- III. Hybrid virtual cloud
- IV. Community virtual cloud.

**I. Private virtual cloud:-**This technique is most expensive and secure as compare to public virtual cloud. In the private virtual cloud these are no other securities it should be legal bandwidth limitation.

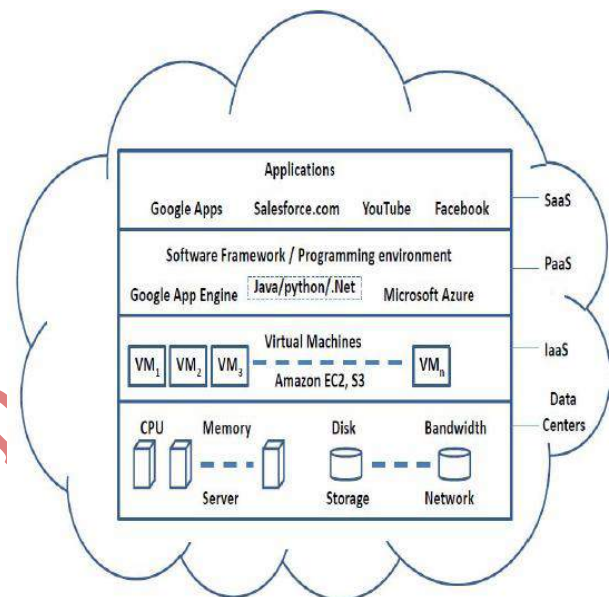
Examples:-A private virtual cloud is example is Eucalyptus machine.

**II. Public virtual cloud:** - The virtual cloud server is provides a global environment. In this system many clients are accessed and managed the company firewall.

**III. Hybrid virtual cloud:** - The composition of two or more virtual cloud server deployment is called Hybrid virtual cloud. This server is always link to data transfer process between without effect to other database

**Example:** - The virtual Cloud include Amazon Web Services (AWS).

**IV. Community virtual cloud:** -The internal structure share by many organization.



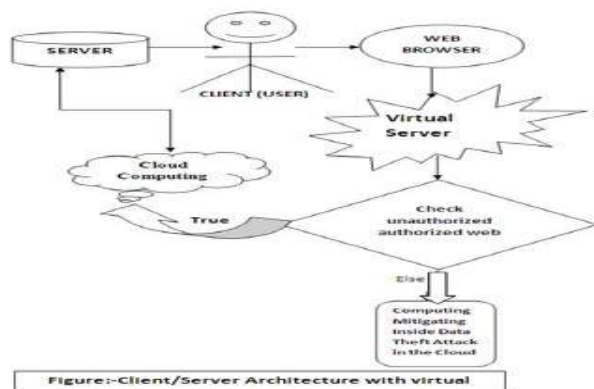
**Figure:-System Architecture**

**VI. EXPECTED OUTCOME:-**

The proposed virtual cloud server machine is used to secure cloud server. These proposed structure is reduced the Workload, central securities etc. The related task performed between cloud machine hypervisor and VMHs and it is changed to central securities of computer machine to distribution to other client. The distribution of the securities of server is very good way to reduced workload from virtual cloud hypervisor based. In general the additive, distribution system securities has more complex than the centralized to server that is virtual cloud server. Today has computer world everything is possible to

breakable. However the additive virtual cloud is network based technology but it have been building of root trusted in virtual cloud machine.

## VII. PRAPOSED ARCHITECTURE OF VIRTUAL CLOD



## VIII. REFERENCE:-

- [1] L. Litty, "Hypervisor-based Intrusion Detection," Dept. Computer Science, University of Toronto, 2005.
- [2] G. Rowel, "Virtualization: The next generation of application delivery challenges," 2009.
- [3] G. Texiwill, "Is Network Security the Major Component of Virtualization Security?," 2009.
- [4] D. E. Y. Sarna, "Implementing and Developing Cloud Computing Applications: Group, LLC, 2011.
- [5] T. Ristenpart and e. al, "Hey, you, get off of my cloud: exploring information leakage in third-party compute clouds," presented at the 16th ACM conference on Computer and communications security, Chicago, IL, November 9-13, 2009.
- [6] "Securing Virtualization in Real-World Environments," White paper, 2009.
- [7] F. Sabahi, "Intrusion Detection Techniques performance in Cloud Environments " in Proc. Conf. on Computer Design and Engineering, Kuala Lumpur, Malaysia, 2011, pp. 398-402.
- [8] R. Chow, P. Golle, and J. Molina, "Controlling Data in the Cloud: Outsourcing Computation without Outsourcing Control," presented at the ACM Security Workshop, 2009.
- [9] P. Sefton, "Privacy and data control in the era of cloud computing."
- [10] D. Rowe, "The Impact of Cloud on Mid-size Businesses," 2011.
- [11] C. Almond, "A Practical Guide to Cloud Computing Security," 2009.
- [12] F. Sabahi, "Security of Virtualization Cloud Computing," in 4th Conf. on Computer Science and IT.
- [13] P. R. Gallagher, "A Guide to Understanding in Automated Information Systems: The Rainbow Books, ch.3 & ch.4, 1991.
- [14] Software Engineering Institute reports, N. Mead, E. Hough, and T. Sehny, "Security engineering (SQUARE) methodolgy," Software Engineering Institute, 2005.