

A Survey Paper on Virtual Machine Monitoring In Cloud Computing

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Abstract— by using load balancing on the virtual machine it has an important effect on the performance in the cloud computing domain. Cloud computing becomes more efficient and improves user satisfaction by using good load balancing. A better load balancing model based on cloud segregation with switch mechanism concept to choose different plan for different situations .To improve the efficiency in the public cloud environment the algorithm applies the game theory to the load balancing strategy.

Clouds can be classified as public, private or hybrid. Cloud computing is the delivery of computing as a service rather than a product, whereby shared resources, software, and information are provided to computers and other devices as a utility (like the electricity grid) over a network (typically the Internet). Cloud resources are usually not only shared by multiple users but are also dynamically reallocated per demand. This can work for allocating resources to users. This approach should maximize the use of computing power thus reducing environmental damage as well since less power, air conditioning, rack space, etc. are required for a variety of functions. With cloud computing, multiple users can access a single server to retrieve and update their data without purchasing licenses for different applications.

Keywords: - Cloud Computing, Virtual Machine, Load Balancing

I. INTRODUCTION

Cloud Computing is a new computing model in which resources are provided as a service over the Internet. The provisioned resources could be ranging from physical infrastructure resources to complex processing software. Users can outsource their storage and processing tasks to cloud resources there by relieving their local systems from those tasks. Users make use of client machines for connecting to cloud service providers over the Internet and access the cloud resources for their computation needs. These client machines can be desktops or laptops or even mobiles. Over the last decade, advancement in mobile devices has given way to mobile computing technology. With the sophisticated built-in features like camera, blue tooth, data communication, GPS, etc. the mobile devices are no longer used just for the conventional voice communication. But at the same time, complexity in the software has also multiplied making them resource hungry. Hence, even though the tasks that can be performed by mobile devices have increased manifold, the physical resource constraints in mobile devices such as storage capacity, processing power, energy, etc. are hindering the growth of mobile computing. In this paper we propose cloudlet architecture for data access .The use of benefits in several ways by reducing the latency.

II. PROBLEM STATEMENT

The existing system makes use of the internet as the data Storage centre. Existing system is employed by a large number of users. Latency still persists in the existing system. The data is requested from the available network (i.e. the internet) and not cloudlets. Bandwidth utilization is not optimum. The existing system uses the public cloud which is managed by the cloud service provider. So, the user is not authorized to modify or update the cloud.

III. IMPLEMENTED SYSTEM

With the computing resources at many different locations the load balancing is aimed at public cloud. The balancer splits the public distributed cloud into various cloud segregation. These divisions clarify the load balancing when the territory is very large and complicated. The suitable segregation for appearing jobs is chosen by the main controller of cloud and the balancer for each cloud partition chooses the best load balancing approach.

Depending on the load balancing system can be either dynamic or static. Dynamic schemes will bring additional costs for the system but can change as the system status changes while Static schemes do not use the system information and are less complicated .For its workability a dynamic scheme is used here. The information is collected and analyzed by the main controller. The dynamic control has little impact on the other working nodes. The right load balancing strategy is produced by the system status.

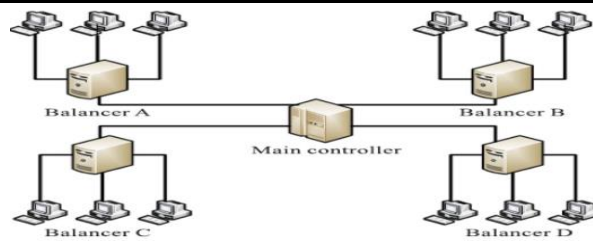


Figure.1 Load Balancing Architecture.

The given architecture divides the main server into different nodes. The central controller checks which jobs needs to be performed first and sends the job to the server. There are various balancers present which have different computers in their control. These balancers make the work of the central controller easy by sending only one job with highest priority from their respective computer.

IV. METHODOLOGY

- Load Balancing
- Domain Based Design(DBD)
- VM-Monitoring

1] Load Balancing

Load balancing is the technique of distributing the load between various resources in any system. Thus load requires be distributing over the resources in cloud-based architecture, so that each resource does almost the equal amount of work at any point of time as showing in fig 2. Basic requirement is to provide some techniques to balance requests to provide the solution of fast response for request. Cloud Load Balancers manage online traffic by distributing workloads between multiple servers and resources automatically. They maximize throughput, minimize response time, and avoid overload. In this paper, an overall review of the latest load balancing technique in the Cloud Computing environment is submitted.

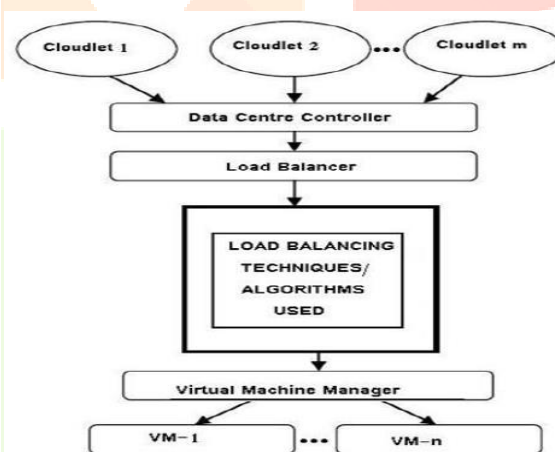


Figure .2 Load Balancing

2]Domain Based Design (DBD)

DBD places the project's primary focus on core domain and domain logic. Logical flow of program revolves around domain entities in the project. Domain is a sphere of knowledge, influence, or activity. The subject area to which the user applies a program is the domain of the software. Service area in DDD is combination of interface and their implementation, service area is mainly used when an operation does not conceptually belong to any object .Following the natural contours of the problem, you can implement these operations in services .One of the major structural patten encountered in DDD (and one of the most argued about) is the repository pattern.

3]VM-MONITORING

VM-Monitoring UI is consist of views that are shown to user it also includes graph showing data points of instance which is configured by cloud service consumer in this web application. For that user need to provide their Account keys to access the application.

V. Conclusion

This project elaborates the design and construction of mobile framework. The smartphone is the pivot, and can be utilized to control different IoT gadgets. However, data over-collection behaviors are present, due to the deficiencies of current mobile operating systems. This application will permit end client to store their private information over the cloud. By symmetric encoding and decoding method, once information is transferred to server it won't be accessible in the portable smartphone. The client needs to decode the file and download it in smartphone to access it again. The future aspect of this project is that we can select multiple data at a time to encrypt.

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