

Reducing the Cost to User for Using Cloud Resources without Any Service Delay

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ABSTRACT:

As an effective and efficient way to provide computing resources and services to customers on demand, cloud computing has become more and more popular. From cloud service providers' perspective, profit is one of the most important considerations, and it is mainly determined by the configuration of a cloud service platform under given market demand. However, a single long-term renting scheme is usually adopted to configure a cloud platform, which cannot guarantee the service quality but leads to serious resource waste. In this project, shows a double resource renting scheme is designed firstly in which short-term renting and long-term renting are combined aiming at the existing issues. This double renting scheme can effectively guarantee the quality of service of all requests and reduce the resource waste greatly. Secondly, a service system is considered as an M/M/m+D queuing model and the performance indicators that affect the profit of our double renting scheme are analyzed, e.g., the average charge, the ratio of requests that need temporary servers, and so forth. Thirdly, a profit maximization problem is formulated for the double renting scheme and the optimized configuration of a cloud platform is obtained by solving the profit maximization problem. Finally, a series of calculations are conducted to compare the profit of our proposed scheme with that of the single renting scheme

KEYWORDS: online, banking, code word substituting.

INTRODUCTION:

This chapter deals with the general introduction, existing system and the proposed system of this project. Overview gives a broad introduction about the project. Existing system explains the current system with its limitations and the proposed system provides a solution to overcome those limitations.

Cloud computing is the delivery of computing and storage capacity as a service to a heterogeneous community of end-recipients. The name comes from the use of cloud-shaped symbols an abstraction for the complex infrastructure it contains in system diagrams. Cloud computing entrusts services with a user's data, software and computation over a network. Public clouds are made available to the general public by a service provider who hosts the cloud infrastructure. Generally, public cloud providers like Amazon AWS, Microsoft and Google own and operate the infrastructure and offer access over the Internet. With this model, customers have no visibility or control over where the infrastructure is located. It is important to note that all customers on public clouds share the same infrastructure pool with limited configuration, security protections and availability variances.

EXISTING SYSTEM:

In the existing system they were used a single long-term renting scheme. It is usually used for adopted to configure a cloud platform, which cannot guarantee the service quality but leads to serious resource waste.

PROPOSED SYSTEM:

In our proposed system used the double resource renting scheme is designed for to solve the existing issues there are one is short-term renting and second is long-term renting schemes. In this service system is considered as an M/M/m+D queuing model and the performance indicators that affect the profit of our double renting scheme are analyzed, e.g., the average charge, the ratio of requests that need temporary servers. The profit maximization problem is formulated for the double renting scheme and the optimized configuration of a cloud platform is obtained by solving the profit maximization problem.

ADVANTAGES:

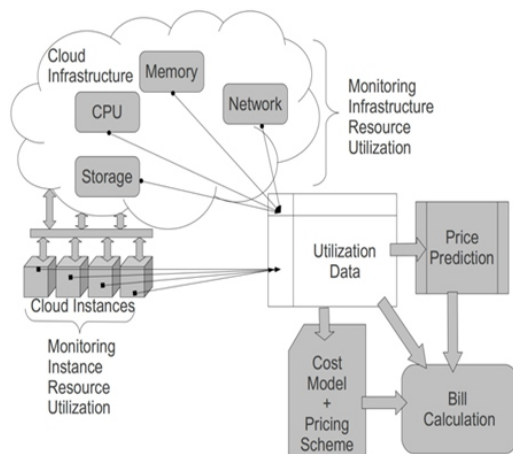
- » To solve the QOS Problem and satisfy quality-of-service requirements under the varying system workload, but also reduce the resource waste greatly.
- » The M/M/m+D queuing model and the performance indicators are analyzed such as the average service charge, the ratio of requests that need short term servers.

The optimal configuration problem solved by two kinds of optimal solutions, i.e., the ideal solutions and the actual solutions, is obtained respectively and increase the profit maximization.

DISADVANTAGES:

- » Low Quality of Service
- » Resource Allocation is waste
- » We need to use multi cloud configuration for each and every cloud services

ARCHITECTURE DIAGRAM:



LITERATURE SURVEY:

J. Cao, K. Hwang, K. Li, and A. Y. Zomaya:

solve the issues to maximize the profit, a service provider should understand both service charges and business costs, and how they are determined by the characteristics of the applications and the configuration of a multiserver system.

Fox, R. Griffith, A. Joseph, R. Katz, D. Patterson, A. Rabkin, and I. Stoica:

solve the issues Prior approaches and strategies were discussed about only non-simultaneous node recovery from a multiple failure with the bunch of topology changes.

P. de Langen and B. Juurlink:

proposed a new leakage-aware scheduling heuristics are presented that determine the best trade-off between these three techniques the results show that the energy reduction achieved by our best approach is close to these theoretical limits.

G. P. Cachon and P. Feldman:

proposed the design of However, the superiority of dynamic pricing can be restored if the Arm sets a modest base price and then commits only to reduce its price, i.e., it never raises its price in response to strong demand

M. Ghamkhari and H. Mohsenian-Rad:

proposed Using various experimental data and via computer simulations, we assess the performance of the proposed optimization-based profit maximization strategy and show that it significantly outperforms two comparable energy and performance management algorithms that are recently proposed in the literature.

Modules

Node Controller

The node controller runs on each node in the infrastructure. A virtualization technology enabled server capable of running a hypervisor is called a node in the cloud. Virtual machines or cloud instances are deployed on these nodes

Storage Controller

The storage controller monitoring for resource utilization happens in two parts. Monitoring resource utilization of the infrastructure. Monitoring resource utilization of the individual cloud instances. The utilization data is stored in the application database at discrete intervals. Based on the utilization/load of the infrastructure, pricing information is obtained.

Billing Model

Dynamic billing on cloud is a function of the instantaneous load on the cloud and the pricing information obtained as per the configuration specified by the service provider. Billing calculations involve determining the overall load on the cloud over a recent interval of history and obtaining a weighted sum of the load on the entities and the corresponding pricing information.

Pricing Model

Pricing for a cloud service can be applied based on multiple considerations. Current service providers like Amazon and Rack space price their cloud instances mostly based on configuration and duration of use. Another prevalent practice is to charge the consumers a fixed price for a lease period like the Amazon reserved instance.

CONCLUSION:

In order to guarantee the quality of service requests and maximize the profit of service providers, this paper has proposed a novel Double-Quality-Guaranteed (DQG) renting scheme for service providers. This scheme combines short-term renting with long-term renting, which can reduce the resource waste greatly and adapt to the dynamical demand of computing capacity. An M/M/m+D queueing model is build for our multiserver system with varying system size. And then, an optimal configuration problem of profit maximization is formulated in which many factors are taken into considerations, such as the market demand, the workload of requests, the server-level agreement, the rental cost of servers, the cost of energy consumption, and so forth. The optimal solutions are solved for two different situations, which are the ideal optimal solutions and the actual optimal solutions. In addition, a series of calculations are conducted to compare the profit obtained by the DQG renting scheme with the Single-Quality-Unguaranteed.(SQU) renting scheme. The results show that our scheme outperforms the SQU scheme in terms of both of service quality and profit

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