Review of Development Ascendable QoS Founded Resource provisioning Context

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ABSTRACT

In today's growing cloud world, where users are continuouslydemanding a large number of services or resources at the same time, cloudproviders aim to meet their needs while maintaining service quality, an ideal QoSbasedresource provisioning is required. In the consideration of the quality-ofserviceparameters, it is essential to place a greater emphasis on the scalabilityattribute, which aids in the design of complex resource provisioning frameworks.This study aims to determine how much work is done in light of scalability as themost important QoS attribute. We first conducted a detailed survey on similarQoS-based resource provisioning proposed frameworks/techniques in this article,which discusses QoS parameters with increasingly growing cloud usageexpectations. Second, this paper focuses on scalability as the main QOScharacteristic, with types, issues, review questions and research gaps discussed indetail, revealing that less work has been performed thus far. We will try to addressscalability and resource provisioning problems with our proposed advance scalableQoS-based resource provisioning framework by integrating new modules resourcescheduler, load balancer, resource tracker, and cloud user budget tracker in theresource provisioning process. Cloud providers can easily achieve scalability ofresources while performing resource provisioning by integrating the workingspecialty of these sub modules.

Keywords. Quality of Service,Scalability, Resource Provisioning, QoSparameters, Cloud Computing

INTRODUCTION

Now a day's Cloud computing is a technology evolving in developments and it is avery important part of today's life. Cloud provides us mobility, virtualization, it is easyto

269

maintain from home, reliability, and service provisioning as per our demand mostorganization and businesses switch to the cloud. The cloud environment is made up ofcollective resources to provide services to its user over the internet. [1] Three basiclayer structures are used in a cloud environment, named Software as Service (SaaS),Platform as Service (PasS), and Infrastructure as a service (IaaS). It will easily possibleon SaaS environment, to access type of software like educational and business softwarewhich is present in cloud and user can access it through the internet on SaaS Platform.As cloud users, we can design various software-based programs and services throughhardware, storage, also willing to do certain computation as well as hosting in that casealso IaaS platform help usGenerally, most of the cloud user demands about hardware parts as its to buy itpersonally is very expensive. IaaS platform provides virtualized part of underlyingcloud hardware. In the cloud Environment 70% of people make use of the IaaSplatform and 30% people used PasS and SaaS [2]. In the cloud environment, everydaycloud infrastructure providers and cloud users face big problems in terms of resourcemanagement. Generally, management of various types of resources is done throughResource provisioning and Resource scheduling mechanism. Resource ProvisioningMechanism helps cloud providers to find out the best resources within the requiredtime to their user or client, whereas resource scheduling helps to schedule theresources, map them to the workload then perform real execution. Resource schedulingis always performed after the resource provisioning. State of art of networkprovisioning strategies fails to reconcile cloud user and cloud service vendor benefits.It is the very important automatic identification of suitable resources as per customer 'srequest because it directly affects service response time and cost. To overcome thisissue, successful design of resource provisioning framework is very important in cloudcomputing environment [2] This paperwork mainly contributes towards Quality ofservice (QOS) in the resource provisioning process, work completed by researchers insame field discussed in detail. In this paper mainly we target scalability as the mainQoS parameter.

OBJECTIVE OF THEWORK

270

According to our comparative study of resource-based QoS processes, it wasfound that majority of work performed by researchers on QoS parameters is onlytargets cost, response time, execution time, and resource utilization. Also, afterstudying various proposed models, we found that scalability is the most importantparameter to consider, as it will indirectly fulfill fundamental QOS parameters such ascost, response time, and resource utilization. Still, there is a lack of automating scalablereal-time framework which suits all cloud computing platform. Few automated scalableframeworks available still facing a lot of issues which are discussed in the nextparagraph.Since after working more on scalability, we discovered that majority of research workis often centered on the auto scalability concept and we have noted the followingreason of less work on scalability and its issues.

Conclusion

In this Paperwork, we have discussed the importance of QoS-based resourceprovisioning and classified existing approaches proposed by researchers who workedon the same subject. Existing research work papers help us identify resourceprovisioning with many QOS-based parameters. Many researchers target one or moreimportant QoS parameters, but after surveyed we have found that very few of themfocus on scalability as QOS's main parameter/attribute. We have also includedinformation on scalability types, the need for scalability, and analysis questions fordealing with scalability issues. Our paper concentrated on the scalability parameter,which is critical for both cloud providers and cloud users in terms of resourcemanagement and utilization. As future work in our research paper we will theimplement proposed work which is based advanced scalable QoS-based resourceprovisioning framework that assists in overcoming the above difficulties while alsoattempting to close the study gaps.

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272

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273