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INTEGRATING MOBILE ACCESS WITH UNIVERSITY DATA PROCESSING IN THE CLOUD

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ABSTRACT

This paper presents enterprises are expanding Infrastructure as a service in university activity. Now a day's most of the organization came in to cloud computing and also they run it as successful one. In this paper we tried to make use Infrastructure as a service technology in a university which helps the students and teachers to have a new development and advancement in education system. The project describes general an architecture allowing Mobile IP hosts to access the network that is protected by a firewall from the public Internet in cloud. The implementation based on adaptation of student, teacher and administrator.

KEY WORDS

IP Security, IAAS, Virtual machine and Nephel.

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INTRODUCTION¹

Now a day most of the corporation process huge amount of data in effective manner of cloud computing system. This cloud computing system makes the people attractive to develop in all public as well as private sector. The infrastructure of cloud is very common and produces the result well. In order to develop such mechanism we need customized data processing system¹. Examples are Google's Map Reduce, Microsoft's Dryador Yahoo!'s Map-Reduce-Merge. In Google's map there are large no of data are available. So data can be transferred using Parallel Data Processing

scheme²⁻³. Then only data will get as soon as possible.

In infrastructure as a service the user can access the data in virtual machine⁴. Their data are stored in different place. For example in internet banking system the customer uses the high security based system. They are access their account and transfer money in only the virtual machine itself but the data are stored in cloud data base management system. For this internet banking system also the parallel data processing method used⁵.

In general, Virtual machine need for strong security. A particular problem when using large amount of data. In this case, a IP Security network of an organization such as a university or a company is protected by a firewall from the global Internet. Only authorized users shall get access the data. This paper describes a solution to provide secure access to their company's data in cloud computing. In our new framework there are three main users to access the account in university model.

UNIVERSITY JOIN UP CHALLENGES

IT sector will face some accumulation challenges to keep access simple for end-users, which could make it difficult to also ensure that the different services conform to a unified security policy. IT departments are also tasked with meeting university user potential for continuous from several accesses and managing many data in virtual machine.

Often, a global software client or Web-based portal that allows access to the university data multiple access methods can help with ease of use. Depending on data and development, deploy and manage the software client platform in combination with a managed. A service partner can often help unify and manage the student, staff and course data.

OPPORTUNITIES AND CHALLENGES

Today's developing method typically assumes the re-resources they manage consist of a static set of homogeneous compute nodes with virtual machine. While IAAS clouds can surely be used to create such joining architecture like setups, much of their remains fallow.

An IAAS clouds are provisioning of calculate resources of data in effective manner. New virtual machine can be allocated space and infrastructure. Virtual machines are not used longer and finished instantly. The main cloud operators Amazon use their customers rent VMs of different types, i.e. with different computation power, different sizes of main memory, and storage. Based on the challenges and opportunities outline designed Nephele⁶, a new data processing method for cloud environments. Nephele's architecture follows a classic server client pattern as illustrated in Figure No.1.

The real implementation of Nephele job consists of is carried out by a set of instance. All instance runs by Task Manager (TM)⁶. A Task Manager receives one or more tasks from the Job Manager at a time, process them, and after that inform Job Manager about their achievement. Depending upon the job reception the Job Manager then decides, depending on the job's exacting tasks. When the regular instances must be allocated/reallocated to ensure a continuous but cost-efficient processing. Our strategy for these result are tinted at the end of this section¹.

DESIGN OF UNIVERSITY DATA

In this paper we develop a Nephele method in university department. Here the architecture of university has fully developed in end user environment. The data of university has separated in three types; there are administrator, staff, and student. The architecture of university data processing is given next section.

ARCHITECTURE

University data processing architecture follows administrator-staff-student classic pattern as in Figure No.2.

In our architecture the administrator has main control, administrator control the all department and also be having announcement. The department has three section, they are student, staff, and office. Here staffs are performing the course work and give the assignment for student and also upload their data in main database⁷. Here Nephele method task manager is performed. Each job has waited when the student

complete then it was automatically closed. When the staff assign the assignment to student the data has verified how many student submit the assignment at lost it show the consolidate report. Staff has a special approach to cover the student they are having upload the material on their course work.

The office architecture maintains the staff and student fees section. Student has submitted the assignment with concern staff and share data, information with all students. And main thing of university architecture the students are done their exam in online.

SECURE VIRTUAL MACHINE

The organization's interior network is isolated from the Internet by remote server control⁸. The model of remote control server connection is shown in Figure No.3. The private interior network is the only entry point to the organization's private virtual network. Virtual machine IP is used only in the mobile node de-capsulation mode without using other user in university data.

In our university data processing each user having separate login address. And they have mobile verification code for login time⁹. And also be the server track their virtual machine internet protocol address in all the time. So this method is more secure for end users to data updating. For efficient parallel data processing in cloud environments we presented Nephele. This will makes the all task in parallel task manager on by one. The performance evaluation gives impression on how the ability to assign virtual

machine types to manage tasks of a processing data¹⁰.

IMPLEMENTATION

It is also possible to communicate directly to correspondent nodes outside of the private network directly using the virtual machine, if that connection does not require to be secured. It can be configured easily by modifying the mobile node's routing table; this will be implemented in ASP. Net as front end and SQL server as back end.

Login

The login screen for all users in virtual machine as shown username, password into login button.

Mobile verification code

The mobile nodes in the foreign network access the verification key is given, after that it redirected in home page.

Update Data

After obtaining the verification key each user has use appropriate action depending upon user details. The administrator maintains department and announcement. The staff and student maintain the data in remote server. The staff mapping their files in mobile data or remote data.

Transfer Data

For submission of assignment the virtual machine first have the data then it was uploaded in remote server. This server distribute the files to the concern staff with all details like who is send the data with date, file type and size etc. So this will managed all data transfer in virtual machine to remote server. In this processing mobile IP has measured and saved in remote server for secure data transfer.

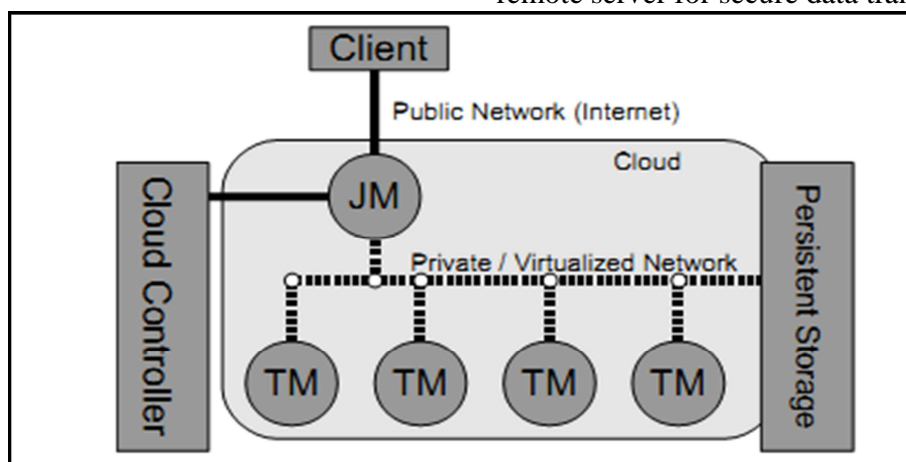


Figure No.1: Nephele in an IAAS cloud

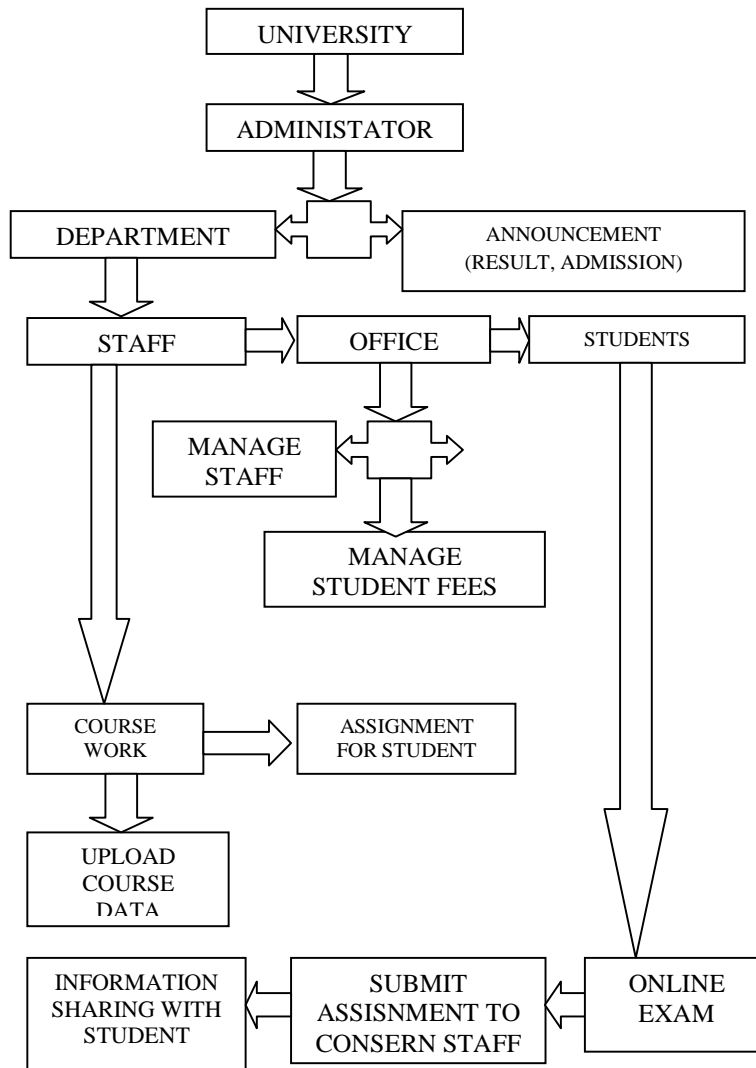


Figure No.2: University data processing architecture

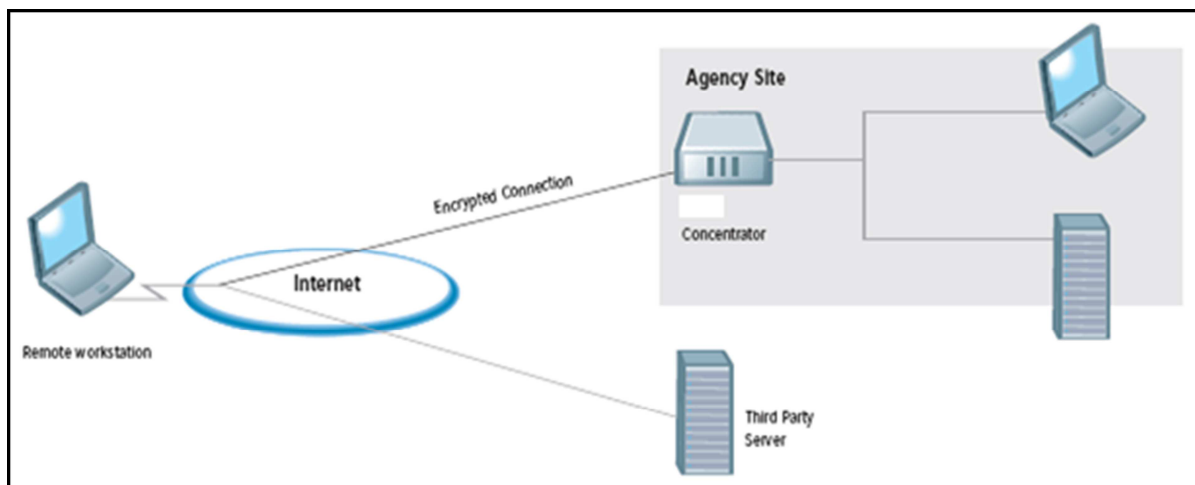


Figure No.3: Model remote server connection

CONCLUSION

In few years before, all wireless networks are consisted of a single user wired Ethernet switch. The organization buys their own services, according to their requirement and maintains their own concern. In this paper we have discussed the efficient as well as parallel high speed data processing in cloud computing method using Nephele in university data. Most of Nephele concern for parallel consistent data application presentation and system ease of use our current loom builds a instant the Cloud computing services. In future work all university data are amalgamated and make the cloud of all universities.

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CONFLICT OF INTEREST

We declare that we have no conflict of interest.

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