A TECHNIQUE IN COMMUNICATION WITH CLOUD USING RPC

[1]Dr Ch.Suresh Kumar, [2]Dr Ch.Sunil Kumar, [3]Ms Kota Divyabharathi, [4]Mr.Syed Rasheed Uddin
[1,2]Professor, [3,4]Assistant professor, Department of Computer Science and Engineering,
Malla Reddy College of Engineering, Hyderabad.

ABSTRACT:
Cloud computing emerging area for distributing applications and accessing application through remote procedure calls are helpful to request data and sending data to clouds. In cloud computing there is lot of mechanisms to transfer data like message queues but by using remote procedure calls can access information remotely without having independent failures. Data available at the source and the consumer can interact with the system. However security is one of the criteria to apply lot of security algorithms for data exchange in between source and the user. The cloud server can search the user data by request through remote procedure call and find out the information by using index and corresponding files. The functions contained within RPC are accessible by any program that must communicate using a client/server methodology.

KEYWORDS: Remote Procedure calls, Data security, Network protocols, Cloud Platforms.

1. INTRODUCTION

Cloud computing is the advanced technology for data storage and describes the web as a platform for accessing information. To users cloud is the pay per use on demand to use resources through internet. Cloud models are helpful to exploring the view of the end user.

Public Cloud: is a type of cloud hosting in which the cloud services are delivered overa network which is open for public usage. This model is a true representation of cloud hosting; in this the service provider renders services and infrastructure to various clients. The customers do not have any distinguish ability and control over the location of the infrastructure.

Private Cloud: is also known as internal cloud; the platform for cloud computing is Implemented on a cloud-based secure environment that is safeguarded by a firewall which is under the governance of the IT department that belongs to the particular corporate. Private cloud as it permits only the authorized users.

Hybrid Cloud: is a type of cloud computing, which is integrated. It can be an arrangement of two or more cloud servers, i.e. private, public or community cloud that is bound together but remain individual entities. Benefits of the multiple deployment models are available in a hybrid cloud hosting. A hybrid cloud can cross isolation and overcome boundaries by the provider; hence, it cannot be simply categorized into public, community cloud. It permits the user to increase the capacity or the capability by aggregation, assimilation or customization with another cloud package / service.

In cloud computing, cloud services are available such as software as a service, platform as a service and infrastructure as a service are basic level services useful in user environments. Software as a service is to allow the user to access software applications. Platform as a service is to provide the deployment tools to the end user. Infrastructure as a service is to access the resources such as virtual storage.

Benefits of cloud computing are cost effective, on demand service, resource available on

ISSN (PRINT): 2393-8374, (ONLINE): 2394-0697, VOLUME-4, ISSUE-11, 2017
DOI: 10.21276/ijcesr.2017.4.11.40

network, online deployment models, high efficiency and high reliability

2. REVIEW ON CLOUD COMPUTING

Cloud computing is a computing based on the internet. In cloud computing resources are available on the internet side it allows the user to access the applications. The journey to the cloud is for accessing the application and running it for flexibility, Automatic software updates, document control and the security.

Cloud platform: Elastic Cloud Computing Platform it provides a programmable virtual cloud infrastructure automated design, deployment and management of virtual applications in the cloud and configure the cloud capacity in an easy to use.

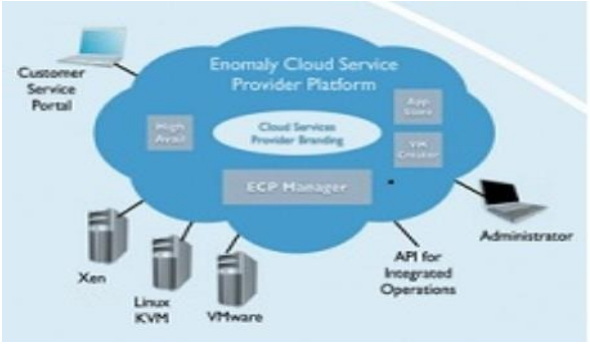

Figure 2: Elastic Cloud Computing Platform

Why cloud Computing

The cloud computing has leading improvements in the storage and accessing resources remotely. Immediate updates with new features and functionality of software enhancements are available in cloud computing environments. To reduce the size of the own data centers and reducing the servers count without impacting the capabilities for accessing information cloud computing is useful. In the traditional computing requires buying capacity it is sufficient to the end user in cloud environments.

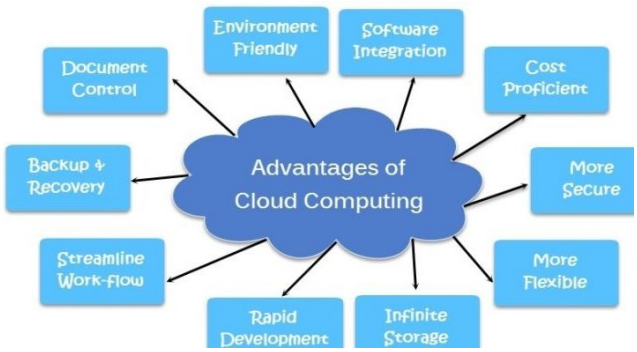

Figure 3: Advantages of Cloud Computing

3. AN EVOLUTIONARY APPROACH INRPC

RPC Processes and Interactions in the cloud

The RPC components make it easy for clients to call a procedure located in a remote server program. The client and server each have their own address spaces; that is, each has its own memory resource allocated to data used by the procedure. The following figure shows the RPC process.

RPC Process

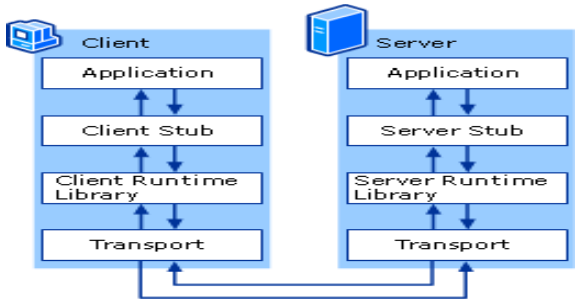

Figure 4: RPC Process between Client and Server

The RPC process starts on the client side. The client application calls a local stub procedure instead of code implementing the procedure. Stubs are compiled and linked with the client application during development. Instead of containing code that implements the remote procedure, the client stub code retrieves the required parameters from the client address space and delivers them to the client runtime library. The client runtime library then translates the parameters as needed into a standard Network Data Representation (NDR) format for transmission to the server.

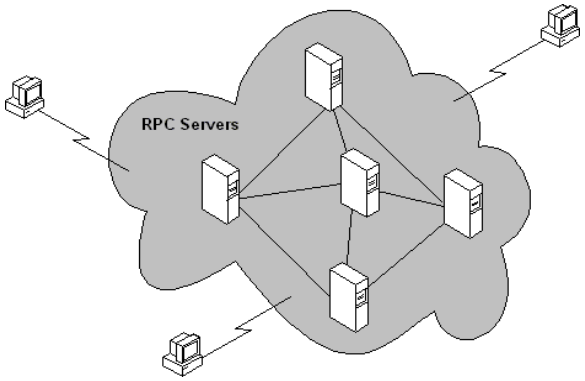

Figure 5: RPC SERVERS

ISSN (PRINT): 2393-8374, (ONLINE): 2394-0697, VOLUME-4, ISSUE-11, 2017
DOI: 10.21276/ijcesr.2017.4.11.40

RPC-Supported Network Protocols in the Cloud: In the Cloud Computing environment protocols are supported to provide the services to request and response in between the end user and the cloud. Some of the protocols are listed on bellowed table.

Types of protocols	RPC Type
Transmission Control Protocol(TCP)	Connection–oriented
Sequenced Packet Exchange (SPX)	Connection–oriented
Named Pipe	Connection–oriented
HTTP	Connection–oriented
User Datagram Protocol (UDP)	Connectionless
Cluster Datagram Protocol(CDP)	Connectionless

4. CONCLUSION

In this paper we proposed the RPC mechanism in the cloud environments and process between the client and the server communication process.RPC is an evolutionary approach to access the information remotely by using the clouds environment. The cloud engaged with the requests and the process for delivering the information by searching on the storage by using index mechanisms. The distributed link and tracking client provide reliable connection between the client and the server.

5. REFERENCES

[1] Ren, Yulong, and Wen Tang. "A SERVICEINTEGRITY ASSURANCE FRAMEWORK FOR CLOUD COMPUTING BASED ON MAPREDUCE."Proceedings of IEEE CCIS2012. Hangzhou: 2012, pp 240 – 244, Oct. 30 2012-Nov. 12012

[2] N, Gonzalez, Miers C, Redigolo F, Carvalho T, Simplicio M, de Sousa G.T, and PourzandiM. "A Quantitative Analysis of Current Security Concerns and Solutions for Cloud Computing.". Athens: 2011., pp 231 – 238, Nov. 29 2011- Dec. 12011

[3] Hao, Chen, and Ying Qiao. "Research of Cloud Computing based on the Hadoop platform.". Chengdu, China: 2011, pp. 181 – 184, 21-23 Oct2011.

[4] Y, Amanatullah, Ipung H.P., Juliandri A, and Lim C. "Toward cloud computing reference architecture: Cloud service management perspective.".Jakarta: 2013, pp. 1-4, 13-14 Jun.2013.

[5] Devarakonda Krishna “A Safety Summons on Cloud Data”IETE-Chandigarh,PP:340-343,17-18 29July.2017

[6] BIRRELL, A. D., AND NELSON, B. J. Implementing remote procedure calls. ACM Trans. Comput. Syst. 2, 1 (Feb. 1984), 39-59.