

CloTopOs: “Cloud Operating System on your Finger Tip”

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Abstract- Cloud computing is a technology deployment approach that has the potential to help organizations better use IT resources to increase flexibility and performance. One of the most important ways to support the underlying complexity of well-managed cloud computing resources is through the operating system. On the basis this concept a new service is provided called as CloTopOs. CloTopOs is a online web service which provide the user Cloud Storage and Cloud Operating System through which user can store the data online, access data, share data and process it with the help of Cloud OS service known as CloTopOs.

Keywords- cloud computing, cloud OS, Clotopos

I. INTRODUCTION

A cloud operating system is a type of operating system designed to operate within cloud computing and virtualization environment. A cloud operating system's work is to handle the operation, execution and processes of virtual systems, virtual cloud servers and virtual infrastructure, as well as the back-end software and hardware resources. A cloud operating system may also be called a virtual operating system.

Cloud-based technology helps organizations access the right computing resource at the right time for minimum price. Providing more, cloud-based services can be packaged so that specific workloads can be more easily provisioned through the use of sophisticated software. Users of these cloud services are experiencing dramatic improvements in productivity as a result of having consistent access to the right mix of technology to solve business problems. The productivity improvement results from cloud computing ability to lift complexity away from the individual user, the benefits of

cost and productivity of the cloud depend on a highly sophisticated underlying infrastructure. Realising the growth potential in this field, we decided to use these concept of Cloud computing and create a new product CloTopOs.

CloTopOs is a online web service which provide the user Cloud Storage and Cloud Operating through which user can store the data online, access data, share data and process it with the help of Cloud OS service from any internet enable device.

This Cloud Operating System will be available to user online and will be same as the physical operating system used by the user with high configuration. User will be able to use CloTopOs from any internet enable device. Our main objective is to provide operating system to user online through which user can access complete OS and access different Application as a service online, storage of data & files which can be access and process on any of the platform.

II. LITERATURE REVIEW

A. "Toward a Cloud Operating System"

Cloud computing is characterized today by a hotchpotch of elements and solutions, operating systems running on a single virtualized computing environment, middleware layers attempt to combine physical and virtualized resources from multiple operating systems, and has specialized application engines that leverage a key asset for the cloud service provider (e.g. Google's BigTable). Yet, there does not exist a virtual distributed operating system that ties together these cloud

resources into a unified processing environment that provides easy way to program, dependable, self-managed, and flexible. In this paper, we discuss the importance of a virtual distributed operating system, a Cloud OS, unlocking the real potential of the Cloud-a computing platform with seemingly infinite CPU, memory, storage and various network resources.

B. "An OS architecture for Cloud Computing"

Cloud computing is resulting in fundamental changes to computing infrastructure:

- Rather than purchasing their own servers, companies are instead leasing capacity in data centers provided by Infrastructure as a Service (IaaS) cloud providers.
- Increasingly, these platforms are created using fully integrated data center scale systems rather than aggregating commodity network, compute and storage.
- IaaS providers charge their tenants by usage [6] which increases demand for highly elastic platforms.
- Usage of IaaS platforms will increasingly be dominated by scale out applications than can elastically span many nodes.

These changes in the computing infrastructure have not resulted in corresponding changes to operating systems. Are changes required to traditional OS or can the challenges be efficiently met by higher level middleware? Are there system software techniques to allow applications to efficiently utilize the parallelism of integrated data center scale systems? Are today's OS the right building blocks for constructing elastic applications on IaaS platforms? If new OS techniques, primitives and abstractions are useful, can they be introduced in a way that allows applications to be incrementally modified to use them.

C. "The Role of the Operating System in Cloud Environments"

Cloud computing is a technology which deploys approaches that has the potential to help organizations better use IT resources to increase flexibility and performance. The cloud-based technology helps organizations access the right computing resource at the right time for an economical price. The cloud-based services can be packaged so that specific workloads can be more easily provisioned through the use of sophisticated software. Users of these cloud services are experiencing dramatic improvements in productivity as a result of having consistent access to the right mix of technology to solve various business and technical problems.

D. "Evolution and effects of mobile cloud computing, middle-ware services on cloud, future plans: A peek into the mobile based cloud operating systems"

In this paper, a review on the evolution of mobile cloud computing and its various advancements. It gives pleasant review on the concept of Mobile Cloud Computing, statistics, advancement and growth of cloud computing, usage of mobile services, problems in mobile cloud computing as well as efficient solutions, future scope and research. It has seen that the advanced mobile cloud computing has not only led to an improvement in the processing of mobile applications and services but has also opened a revolutionized realm wherein mobile cloud computing can be applied to the operating systems installed in mobile devices and the operating systems as a whole can run on the cloud framework, which increase the processing speed and optimize operations to attain efficient results.

III. PROPOSED PLAN

Proposed cloud computing service is the combination of all three types of services of cloud computing currently exists. CloTopOs is a project where combination of SaaS, PaaS and IaaS is merged together at one place.

Operating systems such as Windows 7 are designed to support these requirements so that cloud services and application services do not have to recreate underlying technologies tailored for each specific deployment. In addition, we made CloTopOs to supports important standards that enhance portability and interoperability across cloud environments.

CloTopOs platforms are designed to hide much of the complexity required to support applications running in complex and federated environments. Much of the functionality, services and hardware are required for the efficient operation of many applications is built in to the operating system.

IV. SYSTEM REQUIREMENT

- *Software Requirement*

Operating System: Windows XP/7
Language/Technology: .NET Framework 3.5
Tools: Visual Studio 2010, Dream viewer
Database: MS SQL Server 2008

- *Hardware Requirement*

Internet Enable Device Supporting IE, Google Chrome

V. SYSTEM ARCHITECTURE

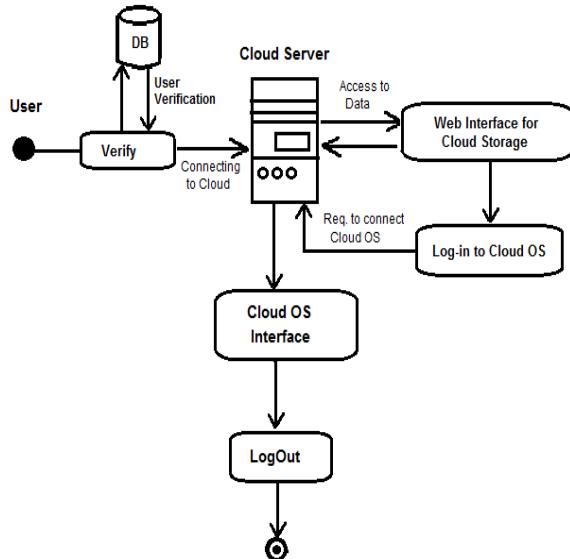


Fig. System Architecture of CloTopOs

VI. ADVANTAGES

- ❖ **Platform Independent:** As it is a web application, it can be used from any operating system.
- ❖ **No hardware requirement:** No such special hardware is required other than for supporting web browser.
- ❖ **Data is secured:** Data is stored in secure manner.
- ❖ **Easy data sharing:** Data sharing is much easy as your data is available on cloud online.
- ❖ **Easy accessing & processing of data:** Using CloTopOs accessing and processing of files is easy as user is already aware of OS environment.
- ❖ **Work from anywhere.. Any time..**

VII. CONCLUSION

- ❖ CloTopOs is an online web service which provides the user Cloud Storage and Cloud Operating through which user can store the data online, access data, share data and process it with the help of Cloud OS service from any internet enable device.
- ❖ The user not only will store the data on cloud but also he can share that data and view that data online.

- ❖ Whether you have very large files or small, it does not matter any format or on which platform, your files are available to you at your device.
- ❖ By providing CloTopOs to the user, user can use that Cloud OS same as his physical operating system from any other platform remotely.
- ❖ User can easily log-on to our website and access that Cloud OS from any platform and store data, access, modify, or process etc. using that OS online.

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