

# Cloud Extensible and Optimized Cloning Of Multiple Operating System Installation

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## **Abstract**

*As a novel approach to system maintenance in large no of PCs requiring multiple operating systems with bundle of software's installation using cloud Storage, Storage-as-a-Service offered by cloud service providers (CSPs) is a paid facility that enables organizations to outsource their sensitive data to be stored on remote servers. In this paper, we propose a cloud-based storage scheme that allows the data owner to benefit from the facilities offered by the CSP and enables indirect mutual trust between them.*

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## **I. Introduction**

We are using cloud server first challenging issue here is the implementation of mutual trust between the data owner and the CSP. If there is in this digital age, Organizations or Educational Institution has large no of PC's, we set the new lab for development or practical purpose we consider all PCs` have same configuration, in this scenario we install operating system and bundle of software for each PCs it takes long time and need man power also so we use cloud cloning operating system method it reduces time, man power. In this method we install operating system via internet or intranet its possible dual operating system like windows and Linux with bundle of software's in this method we have two type of installation 1) personal computer to personal 2) cloud server to personal computers or dedicated server to personal computer's any dishonest CSP, the trusted third party can know about that CSP and it can revoke that particular CSP. And the second challenging issue here is the access control, it will allow the data owner to grant or revoke access rights to the user regarding the outsourced data. We are using dedicated server for clone operating system concept we need good configuration server and properly connected with all personal computers.

## **EVOLUTION OF CLOUD COMPUTING**

Cloud computing is all about renting computing services. This idea first came in the 1950s. In making cloud computing what it is today, five technologies played a vital role. These are distributed systems and its peripherals, virtualization, web 2.0, service orientation, and utility computing.

- Distributed Systems and its peripherals
- Virtualization
- Web 2.0
- Service Orientation
- Utility Computing

## **OBJECTIVE OF THE PROJECT**

In this project it allows install the operating system for PCs via Internet or intranet using cloud storage. it allows a data owner to outsource the data to a CSP, and perform full dynamic operations at the block level, i.e., it supports operations such as block modification, insertion, deletion and append. The authorized users receive the most recent version of the outsourced data. It establishes indirect mutual trust between the data owner and the CSP since each party resides in a different trust domain. It enforces the access control for the outsourced data.

## **CLOUD SERVICE PROVIDER (CSP)**

A cloud service provider, or CSP, is a company that offers components of cloud computing - typically, Infrastructure as a service (IaaS), software as a service (SaaS) or platform as a service (PaaS). Cloud service

providers use their own data centres and compute resources to host cloud computing-based infrastructure and platform services for customer organizations. Cloud services typically are priced using various pay-as-you-go subscription models. Customers are charged only for resources they consume, such as the amount of time a service is used or the storage capacity or virtual machines (VM) used. For SaaS products, cloud service providers may either host and deliver their own managed services to users or they can act as a third-party, hosting the application of an independent software vendor. Using a cloud provider has benefits and challenges. Companies considering using these services should think about how these factors would affect their priorities and risk profile, for both the present and long term. Individual CSPs have their own strengths and weaknesses, which are worth considering.

#### **BENEFITS**

**Cost and flexibility:** *The pay-as-you-go model of cloud services enables organizations to only pay for the resources they consume. Using a cloud service provider also eliminates the need for IT-related capital equipment purchases. Organizations should review the details of cloud pricing to accurately break down cloud costs.*

**Scalability:** *Customer organizations can easily scale up or down the IT resources they use based on business demands.*

**Mobility:** *Resources and services purchased from a cloud service provider can be accessed from any physical location that has a working network connection.*

**Disaster recovery:** *Cloud services typically offer quick and reliable disaster recovery.*

#### **CHALLENGES**

**Hidden costs:** Cloud usage may incur expenses not factored into the initial return on investment (ROI) analysis. For example, unplanned data needs can force a customer to exceed contracted amounts, leading to extra charges. Companies also must factor in additional staffing needs for monitoring and managing cloud use. Terminating use of on-premises systems also has costs, such as writing off assets and data clean-up.

## **II. LITERATURE SURVEY**

Computer system designers need a deep understanding of end users' workload in order to arrive at an optimum design. Unfortunately, many end users will not share their software to designers due to the proprietary or confidential nature of their software. Researchers have proposed workload cloning, which is a process of extracting statistics that summarize the behaviour of users' workloads through profiling, followed by using them to drive the generation of a representative synthetic workload (clone).<sup>1</sup>

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1. Yipeng Wang and Yan Solihin "Emulating Cache Organizations on Real Hardware Using Performance Cloning" IEEE Conference, pp. 298-307, 2015

The vulnerability of cloud computing systems (CCSs) to advanced persistent threats (APTs) is a significant concern to government and industry. We present a cloud architecture reference model that incorporates a wide range of security controls and best practices, and a cloud security assessment model—Cloud-Trust—that estimates high level security metrics to quantify the degree of confidentiality and integrity offered by a CCS or cloud service provider (CSP).<sup>2</sup>

#### **ADVANTAGE OF PROPOSED SYSTEM**

Proposed system has the following main contributions:

- It allows set up the new lab for minimum Time
- Reduce the man power
- No need high Infrastructure.
- Avoid Unwanted Hardware problem
- There is High Rate of Flexibility.
- It ensures the newness property, i.e., the authorized users receive the most recent version of the outsourced data.
- Companies can save big by employing cloud computing as it eliminates cost for hardware and software.
- Traditional methods to buy and configure hardware and software are time consuming.
- We can access our software and application anywhere in the world, on any system.

2. Dan Ganzales, Jeremy M. Kaplan, Evan Saltzman, Zev Winkelman, Dulani Woods “Cloud-Trust—a Security Assessment Model for Infrastructure as a Service (IaaS) Clouds” IEEE Transaction on Cloud Computing, Volume 5, No 3, pp. 523-536, Year 2017

### **III. CONCLUSION**

Cloud-computing trends are poised to answer companies current and future needs. Because technology is essential to firms, cloud computing allows companies to store and access their data at any time. This feature has caused cloud computing to become increasingly popular very quickly. Over time, services providers are working to increase the number of services they provide, which are likely to include enhanced analytics services. Various benefits arise from the use of cloud computing and cloud-storage services. Foremost is security of data. Over time, more and more businesses will store their data in the cloud and will contract with service providers to perform data analytics using the cloud. Even more notable is that, in the future, companies will have no other option than to store their data in the cloud. Business competition will rest largely on data safety and the ability to share and access data. Organizations are likely to become increasingly interdependent. Companies require a reliable cloud-computing environment that meets their needs and desires. Optimally, global enterprises will develop a plan to improve their use of cloud computing.