E-ISSN: 2707-6644
P-ISSN: 2707-6636
IJCPDM 2022; 3(2): 20-24
Received: 07-04-2022
Accepted: 08-05-2022

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An assessment of text from library system (Social networks) using cloud computing

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DOI: https://doi.org/10.33545/27076636.2022.v3.i2a.60

Abstract
This paper discusses security and availability-related challenges in cloud computing environments. The paper also takes a closer look at the shared security responsibilities that exist between consumer and provider. Finally, the paper investigates high availability concerns and demonstrates how to help improve the resilience of your virtual servers in a cloud computing environment.
The abstract also:

a) Records the time it takes to access file document text in some selected social networks (twitter, Facebook and Hi5)
b) Looks at certain features that affects the accessibility time of the files.
c) What affect the download time when a computer is places a distance away from a selected microwave of a particular telecommunication network.
d) Takes into consideration different bandwidth and their effect on download time of selected files text using a particular telecommunication network.
e) Finally considers three different computers with different specifications such as the processors, operation systems, memory allocation, the size of its screen and environment and the time it takes for each computer to access a particular file (text) from the cloud (twitter, Facebook and Hi5).

The researchers also want to find out why these stated features above contribute to the download and file accessibly of cloud users. The results from simulations will be analyzed and compared with each other. based on the differences in the results, it will aid the researcher to deduce why some file download faster that other s and why some telecommunication networks are faster that other, why new and high specification computers and smart phones are faster than others and finally why browsing closer to some telecommunication network's microwave station enable faster download speed than browsing a distance far away.

Keywords: Library system, technology, subscription. text, cloud computing, social network, assessment, application programming interface, infrastructure as a service, software as a service, platform as a service, infrastructure as a service, west African cloud library network, cloud security alliance

Introduction

Cloud Computing is a completely new IT technology and it is known as the third revolution after PC and Internet in IT. To be more specific, Cloud Computing is the improvement of Distributed Computing, Parallel Computing, Grid Computing and Distributed Databases (Kumar1, Murthy, Ramakrishna, Rohit, 2012, 374) [1]. And the basic principle of Cloud Computing is making tasks distributed in large numbers of distributed computers but not in local computers or remote servers. In other words, by collecting large quantities of information and resources stored in personal computers, mobile phones and other equipment, Cloud Computing is capable of integrating them and putting them on the public cloud for serving users.

Cloud computing offers information retrieval systems, particularly digital libraries and search engines, a wide variety of options for growth and reduction of maintenance needs and encourages efficient resource use. These features are particularly attractive for digital libraries, repositories, and search engines such as Cite Seer. The dynamic and elastic provisioning features of a cloud infrastructure allow rapid growth in collection size and support a larger user base, while reducing management issues (Teregowda, Urgaonkar, Gile, 2010, 1) [3]. Cloud computing can transform the way systems are built and services delivered, providing libraries with an opportunity to extend their impact Cloud computing has become a major topic of discussion and debate for any cloud library which relies on technology.

Anyone connected to the Internet is probably using some type of cloud computing on a regular basis. Whether they are using Google's Gmail, Facebook, twitter, organizing photos on Flickr or searching the Web with Bing they are engaged in cloud computing. As Geoffrey Moore points out, the interesting thing about cloud computing is it did not start as a technology for the cloud library, but was driven by the public with services like Facebook and Flickr.

Over the last few years cloud libraries have started to see the value of cloud computing causing it to become a major technology solution for cloud libraries around the world. Looking across the information and broader technology landscape, it is not difficult to find success stories of switching to cloud computing, disaster stories, and a great deal of debate about what cloud computing is, or isn't. The purpose of this article is to look specifically at how fast and easy a user of cloud computing can be accessed.

These students, known as digital natives (Prensky, 2001), the Net Generation, Generation Y, or even Millennials, have not known a world without the Internet (Oblinger & Oblinger, 2005). Through programs such as Facebook, Twitter, Gmail, and Flickr, students already are well versed and frequent consumers of cloud-based technologies (Ercan, 2010). Accordingly, they expect to have 24/7 access to digital technologies in their educational environment, including cloud technologies which support social media. In addition, research has demonstrated that cloud-based solutions can be very effective in supporting collaborative and cooperative learning as well as other socially oriented theories of teaching and learning (Thorsteinsson *et al*., 2010). With the opportunity to facilitate these student needs, coupled with the cost-savings, administrators are asking IT leaders to provide the necessary training, support and resources to implement and support these cloud-based strategies.

Literature Review

Secondary data were selected from information gathered on Facebook, twitter and Hi5.

The approach to literature review was the browse method where print and electronic sources were looked at, read and digested, looking for some relevancy, appropriateness and usefulness of the topic at hand. Browsing the printed materials – books, periodicals, journals, conference papers, annual reports, newsletter, newspapers and theses, would strengthen and reinforce the researcher's foundation of the subject matter.

Facebook

Facebook is a popular social networking site. Originally restricted to people with edu email addresses, Facebook is now available to anyone with a valid email address. A valid email address is one that is verified by Facebook – the user must receive an email message at that address and click on a link in the message to prove that it is a working address. Facebook members can join networks based on school affiliation, employers, and geographic regions.

Facebook can be used for keeping track of friends both old and new. It is free to join and requires only that you be over 13 years of age and has a valid email address.

Most Facebook users post their real names; some post both first and last name, others post first name and last initial. Your real name is most helpful in letting friends find you online.

Facebook gives you the opportunity to post a variety of other information about yourself, such as your educational and work histories, your contact information, your relationship status and lists of your favorite books, movies, and. It's your choice how much information you reveal.

When deciding what to post, keep in mind that disclosing too much can be used against you. Posting your address, phone number, and full birth date could lead to identity theft, a crime in which someone impersonates you to steal money or get other benefits.

Facebook has Privacy settings (accessed using the Privacy link in the upper right corner) which allow you to specify who can see your profile, who can search for you, what information about your online actions appears in Facebook's feeds and what information about you is available to applications.

Features of Facebook

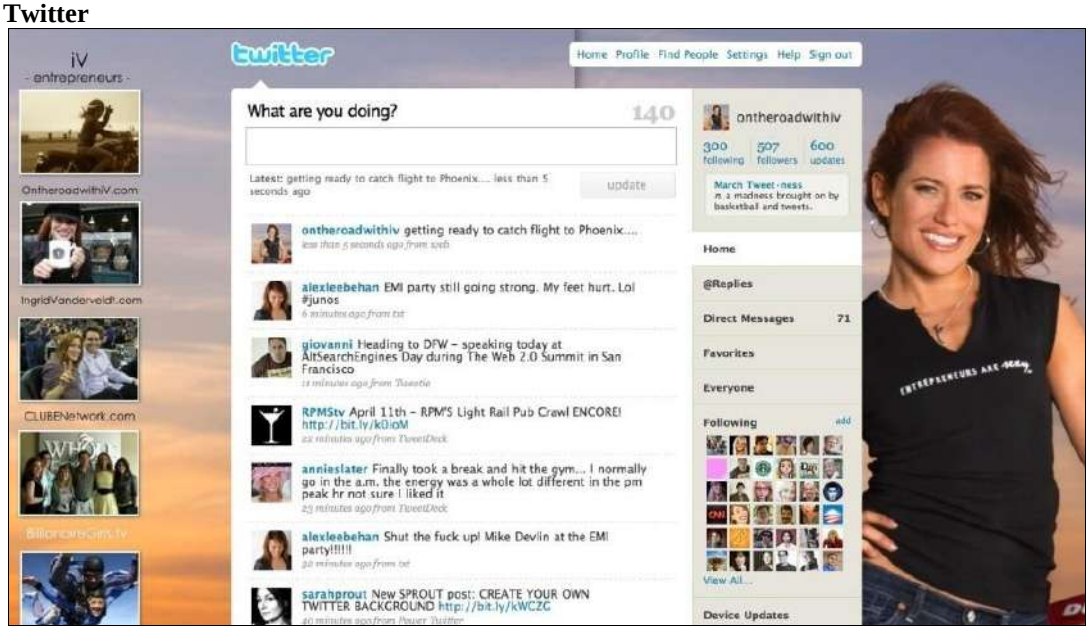
Source: Features of Facebook, 2010, 2pp

Fig 1: Illustration of Facebook profile environment

Twitter

Twitter, a microblogging service less than three years old, commands more than 41 million users as of July 2009 and is growing fast. Twitter users tweet about any topic within the 140-character limit and follow others to receive their tweets. Ranking by retweets differs from the previous two rankings, indicating a gap in influence inferred from the number of followers and that from the popularity of one's tweets. We have analyzed the tweets of top trending topics and reported on their temporal behavior and user participation. We have classified the trending topics based on the active period and the tweets and show that the majority (over 85%) of topics are headline news or persistent news in nature. A closer look at retweets reveals that any retweeted tweet is to reach an average of 1; 000 users no matter what the number of followers is of the original tweet. Once retweeted, a tweet gets retweeted almost instantly on next hops, signifying fast diffusion of information after the 1st retweets.

Features of Twitter



Source: Features of Twitter, 2011, 2pp

Fig 2: Illustration of twitter profile environment

Objective(s) and Scope

In this overly information and communication age, what is being done to change the speed of data acquisition from a library using the cloud?

Another objective also is to look out for the security threats and to secure the cloud library.

As far as social media is concerned, data is accessed for meeting new people, family, and friends and loved once. Sometimes when one needs to send message across to a relative elsewhere without using the email, post or the telephone, one of the fastest means of doing this is through the social media.

Methodology

Comparing Time Frame When Assessing Data from Twitter and from Facebook Cloud

Research Design

For this experiment, I used a two laptops, an IBM Lenovo Think Pad laptop with 2.0 GHz CPU and 2 GB Internal memory (RAM), an internal memory of 232Gigerbyt (GB), processor: Intel core(TM)2 Duo CPU with Model 766312Uand a 13-bit Operating System which is windows 7 Ultimate service pack 1 with a touch pad. The other computer is a Hewlett Packard (HP) laptop also with a touch pad as a mouse, an internal memory of 23gigabyt(GB), Operating system of windows XP, 256GHz CPU and internal memory of 256megabyt(MB), Numion Download time calculator which is an application for calculating the time. I also looked at modems of the various telecommunication networks and their various bandwidth and the effect of the assessment of data from them. I used the same bandwidth for Hi5, twitter and Facebook and different bandwidth for the same social network. A Huawei smart phone was used to collect data. Information was sourced from various platforms of Hi5, twitter and Facebook social networks. I also looked at the size of the various applications (Hi5, twitter and Facebook social networks) that I was comparing. A stop clock was used to calculate the time of data assessment at a distance from a particular telecommunication microwave station.

Research Findings and Discussion

Despite its critics and drawbacks, it seems that the Cloud library is here to stay. Present economic situation will force more and more organizations at least to consider adopting a cloud solution. Patrons have begun to adhere to this initiative and there are proofs that indicate significant progress of work due to the implementation of cloud solutions.

The aim of this work was to assess data from library system using cloud computing. Future research will include a study regarding the level of acceptance and the implementation effects of Cloud libraries in different locations.

Time Frame for twitter

Time Frame When Assessing Data from twitter Platform

- File type: this is the type of file which is being accessed

- Time/sec: this is the time frame taken for a particular file to be downloaded
- Text file:a file is a kind of computer file that is structured as a sequence of lines of electronic text

Graph of Text Size against Time (twitter)

A graph showing time taken when a user download text file from the cloud (twitter) using Vodafone network with bandwidth of 2GB on a windows 7 Ultimate xp 1 laptop with 2.0 GHz CPU and 2 GB (RAM), an internal memory of 232Gigerbyt (GB), processor: Intel core(TM)2 Duo CPU with Model 766312Uand a 13-bit

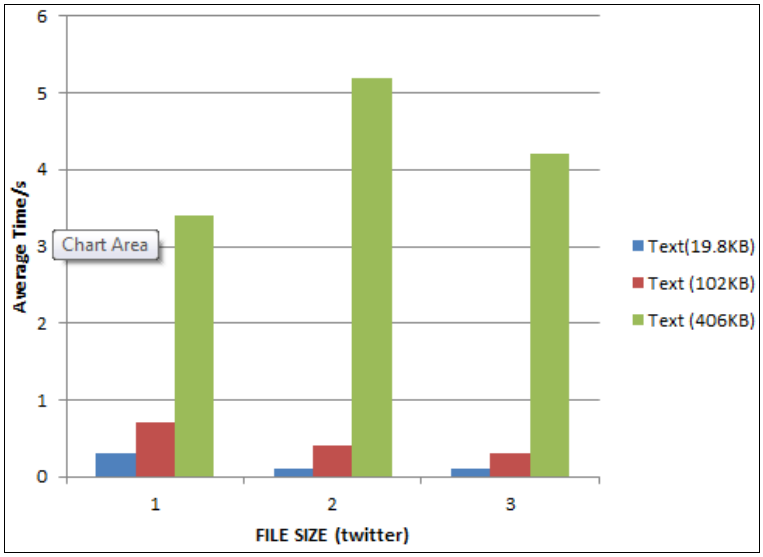


Fig 3: Graph

From this graph in Figure 3, it was found out that it took a longer time to download the text file with a bigger size of 406KB followed by the text file with a size of 102KB. This means the size of the file contributed to its download time.

Graph of Text size against Time (Facebook)

Graph showing time taken when a user download text file from the cloud (Facebook) using Vodafone network with bandwidth of 2GB on a windows 7 Ultimate xp 1 laptop with 2.0 GHz CPU and 2 GB (RAM), an internal memory of 232Gigerbyt (GB), processor: Intel core(TM)2 Duo CPU with Model 766312Uand a 13-bit

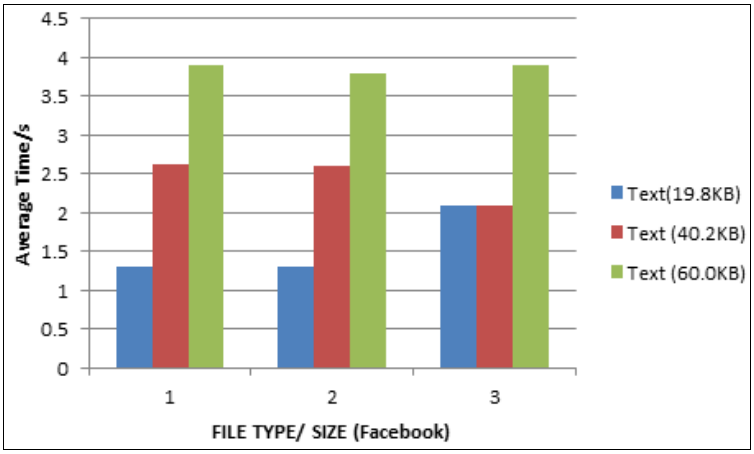


Fig 4: Graph

In the graph above in Figure 4, it can be observed that in all the text files the file that downloaded fast is the text file of size 19.8KB followed by the file with size of 40.2KB before the text file with the size 60.0KB. It means the smaller the text file, the faster is it to access and vice versa. But it can also be observed from the graph that on Facebook application its takes quite a longer time to download a text file as compared to twitter application.

Graph of Text size against Time (Hi5)

A graph showing time taken when a user access text data from the cloud (Hi5) using Vodafone network with bandwidth of 2GB on a windows 7 Ultimate xp 1 laptop with 2.0 GHz CPU and 2 GB (RAM), an internal memory of 232Gigerbyt (GB), processor: Intel core(TM)2 Duo CPU with Model 766312Uand a 13-bit

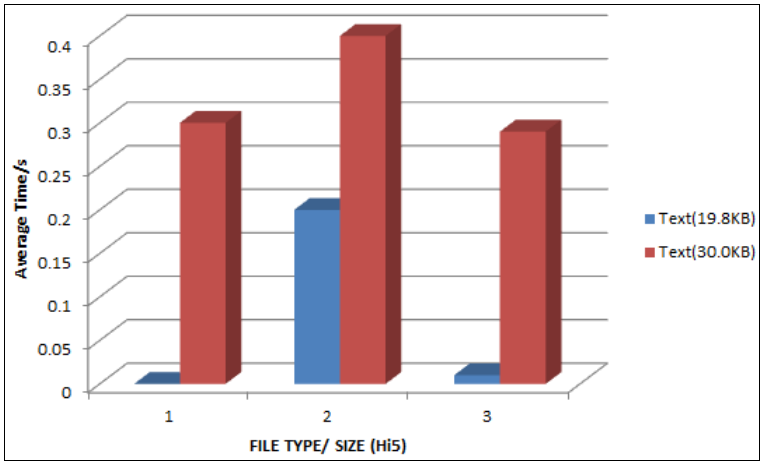


Fig 5: Graph

In the graph above of Figure 5, it can be observed that in all the text files the file that downloaded fast is the text file of colour blue followed by the file size of colour. It means the smaller the text file; the faster is it to access and vice versa.

Summary, Conclusions

Summary

Among the benefits of a cloud computing approach:

- Take advantage of current and rapidly emerging technology to fully participate in the Web's information landscape
- Increased visibility and accessibility of collections
- Streamlined workflows, optimized to fully benefit from network participation
- Cooperative intelligence and improved service levels enabled by the large-scale aggregation of usage data
- Make libraries greener by sharing computing power thus reducing carbon footprints

Conclusion

The vision is to use cloud computing to deliver library resources, services and expertise at the point of need, within user workflows and in a manner that users want and understand.

When creating cloud library systems containing valuable content, we are making important promises to both current and future users. Seriously attending to the principles discussed here and to the practices that evolve from them places us in a much better position to keep these promises. Valuable content should be handled with care and rendered in the highest quality possible. Valuable content should not disappear. We need to understand how to preserve and safeguard cloud material, so it doesn't become obsolete simply because we didn't pay attention.

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