Research Paper

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Contribution of Cloud Technology in Media Industry: an Irreplaceable Need

Computer Science

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ABSTRACT

With the increase in the use of World Wide Web, corporate industries and enterprises are searching for a new way to reduce the cost of usage, communication and storage. Cloud computing, "on-demand" solution is an internet based computing where information, resources, software and application services are provided on demand. Without any doubt, cloud computing is been adopted by many industries and the prospects seem to be promising as more and more new industries are joining the "on-demand" virtual world. Major industry sectors like Education, Healthcare, Finance and Banking, Hospitality, Entertainment industry etc. are adapting to the cloud based services. The following paper is focused on the use of cloud in media industry and its advantages in terms of flexibility, cost effectiveness and reliability.

INTRODUCTION

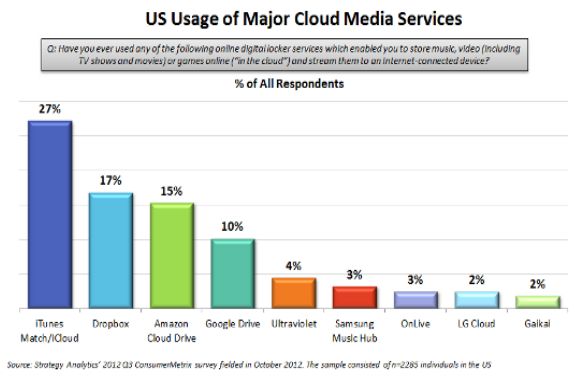
Globalization has not only attracted the ever demanding consumer needs but has also changed the way many businesses think. Financial instability has increased the 'risk' factor more. Intrinsically it has changed the perceptions of many entrepreneurs. Earlier most of the businesses were run on legacy applications comprising of accounting, payroll, customer relationship management, enterprise resource planning, etc. These legacy applications were run on the organization's own servers. One of the main reason to deploy it on the personal servers was a tight security of the personal data of the organization can be maintained. At the same time the former solution proved to be expensive as it involved the cost of electricity, human resource, hardware, etc. With the help of cloud technology people are able to access information real time. They are able to access information via mobile phones, tablets and every other device which supports internet. No longer has a common man needed to carry the information. This new revolution has also given a new dimension to the media industry.

Burg (Cloud Tweaks, 2012) rightly conveyed that nowadays for most people internet is the major source of entertainment and cloud based services provide a platform to share good quality media which increases the demand of service.

MEDIA CLOUD

The cloud that maintains the media content and allows the user to share and access the same is termed as media cloud. For maintaining and presenting the media content to the owner, i.e. streaming, rendering and synchronizing the content, media signaling protocols are required. Essentially this technology is considered to be useful to the music industry. With the help of media cloud users can now share the music, create a playlist and rate it online. It eventually helps the media industry to determine the demand and it helps many artists to display their talent online and share it among different groups of people. May be a Berlin based start up "*Soundcloud*" can be considered as a good example. The information depicted by Sarah Perez (Tech Crunch, 2013) shows that Soundcloud reached over 180 million users a month which the company believes to be 8% of the Internet. Clearly, the public and private sharing platform of media over the internet plays a vital role in winning the hearts of many people. It can be said to have a viral effect in the market.

Many more cloud based media services are nowadays available in the market and are competing to get a customer base. Apple, large competitor of Music store has recently transformed iTunes from desktop-based to cloud based. It is considered to be the easiest way to manage the content because a separate copy of data is not required for different devices. iCloud seamlessly integrates with the applications so that one can access the contents on all our devices and stay up to date where ever one travels. The upcoming cloud based media services "The Amazon Cloud Drive" is also much spoken and a promising platform for the consumers to play, store and access music files. The demand for some of the cloud based media services in the US is displayed as under:



Source: Strategy Analytics 2012 Q3 ConsumerMetrix survey fielded on October 2012. Sample Consisted of n*2285individuals in the US.

The above statistics clearly depicts that iTunes is the leading provider of the cloud based media services in the US. It can be said that as Apple products have captured the a good market share in the US, iTunes/iCloud adds a strategic advantage to the products.

Many times the popularity of the product also depends on other factors such as security. People are not willing to spend for a service which is not secured. Application security is the most spoken about in the Cloud Industry. Nevertheless cloud technology provides private, public and hybrid cloud structures where security can be gained. However it solely depends on the type of product.

Provided below is the survey from Bain & Company which shows the factors affecting the Cloud Industry from the year 2011-2013 (for simplicity purpose considerations are only made on the price-conscious and safety-conscious adopters). Also, the survey includes SaaS, Paas, IaaS and private cloud spending.

	Safety-conscious	Price-conscious
2011 Cloud Spending	$7B	$2B
2013 Cloud Spending	$10B	$5B
Primary Cloud Model	Private and Hybrid	Public

Source: Bain Cloud computing survey, 2011.

Analyzing the above survey, it can be said that the spending for price-conscious group has grown by 125% in 2013 whereas for safety-conscious group has grown only by 71.43%. Assuming that the circumstances prevailed during the year 2011-2013 remains constant, the adopters for cloud based services will increase. Nevertheless, with the uncertain global economic scenario the cloud adopters will tend to adopt a price sensitive solution.

ACCELERATORS

Content Portability - A cloud provides anytime anywhere access for information, thus offering quick and easy content sharing. A media cloud is more important if contents can be seamlessly integrated in any device. It provides the solution where only one time storage of data is required, which can be accessed through any device. E.g. A song added to iTunes library can be accessed through desktop machine, iPad, iPhone etc.

Flexibility - Cloud services are based on multiple models including storage, advertising, content and premium. For example, Dropbox uses a storage model that offers a modest amount of free storage to attract users, then charges for additional storage. Google provides numerous free mobile services, such as Gmail and Maps, to attract more and more people. Apple is one of the few companies that currently provide its software (iTunes) for free, as it is a medium to sell music, movies and other digital goods.

Hassle free - It is one of the important reasons why Cloud hosting is chosen. Media files are larger compared to other data and so when more media content is added, more resources will be required. As it gives the opportunity to add resources on the fly, it is extremely important in case of media because the hassle of adding the resources in traditional method can be avoided.

Multiple device support - A service is more valuable if it allows the content to be stored and accessed across diverse devices. One of the biggest advantages of cloud service is the support for encoding. This means the media file with one format can be played on any other device without the need of separate software which makes the content sharing with family and friends easier, faster and secure.

Cost Effective - Most of the cloud companies provide some free service. Cloud supports low-cost disaster recovery and data storage solutions.

	Dropbox	Google Drive	iCloud	SkyDrive	SugarSync
Free storage	2GB	5GB	5GB	7GB (25GB limited time offer)	5GB
Additional storage (price per year)	50GB ($99); 100GB ($199)	25GB ($30); 100GB ($60)	10GB ($20); 20GB ($40); 50GB ($100)	20GB ($10); 50GB ($25); 100GB ($50)	30GB ($50); 60GB ($100); 100GB ($150)
File size limit	300MB via browser, unlimited from desktop	10GB	25MB free accounts, 250MB paid users	2GB	
Desktop apps	Windows, OS X, Linux	Windows, OS X	Windows, OS X	Windows, OS X	Windows, OS X
Mobile apps	iOS, Android, BlackBerry	Android, iOS	iOS	Windows Phone, iOS	iOS, Android, BlackBerry, Windows Phone
Web interface	Yes	Yes	Yes	Yes	Yes
Version tracking	Yes	Yes	No	Yes	Yes
Multiple folder sync	No	No	No	Sort of	Yes
Public sharing	Yes	Yes	No	Yes	Yes
File/folder collaboration	Yes	Yes	No	Yes	Yes
Password protect file sharing	No	No	No	No	Yes

Source: Techspot Technology news and Analysis, Cloud Storage: 5 Alternatives fielded on April 201.

CONCLUSIONS

The accelerators described above shows that cloud technology is proving to be a promising platform for the media industry. However, several technical factors are required for the successful adoption and facilitate them which will make media cloud more popular, flexible and reliable. One such factor which will serve as the base for selling the media cloud services will be 'Security', also likely to become a challenging and at the same time an expensive issue to tackle.

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