The Evolution of Cloud Computing

Enterprise mobile access has come to being due to IT phenomenon known as cloud computing and the internet. Cloud computing involves a fundamental change in the future of both the corporate sector and technology industry. The concept has a role to revolutionise the way through which web services are delivered to individual and corporate end users alike. Knorr & Gruman, (2010) acknowledge the hype, stating that ‘cloud computing is all the rage’. With the aid of cloud computing, corporations can rent applications and infrastructure that is hosted via the internet and access information from any web capable device. Cloud computing may be the ideal strategic tool to maximise the potential of mobile devices, effectively allowing businesses to push their IT environment out to employees via global access, (Kontzer, 2008).

Cloud computing has become common especially in corporate jargon with the promise of enormous benefits. For example, it can provide generally overshadowing the potentially severe downfalls. The economic and social motivation for the cloud is high and this makes businesses to be agile, (Robbins, 2009). Technology has advanced to a degree such that investing in the cloud can be as simple as visiting a website and registering. Hundreds of thousands of business customers are taking advantage of cloud offerings in that numerous Fortune 500 companies are adding to the momentum in the space. Pioneering multinational companies including IBM, Google, Amazon and Microsoft are all determined to take advantage of the cloud by either utilising its services or providing them, (Hinchcliffe. 2009)

Cloud computing normally act as server virtualization, which ensures the technology allows external IT services to be provided by online hosts or vendors. ‘Virtualization provides more servers on the same hardware while cloud computing provides measured resources while
paying for what you use’ (Phillippi, 2010). Both concepts essentially involve the outsourcing of information systems by individuals or groups. Improved performance of virtualization has led to the evolution of modern cloud computing. Developments over the last five years have lead to virtualisation being placed as a core technology in cloud computing, (Kroeker 2009).

Cloud users are to contract for services on three different architectural layers. These layers include; Software as a Service (SaaS), Platform as a Service (PaaS) and Infrastructure as a Service (IaaS). Robbins (2009) defines SaaS, the highest layer as applications with a web-based interface accessed via web services and Web 2.0. Examples include; Google’s Gmail and MySpace. PaaS is the middle layer and describe as development environments where users can code applications and then the provider or host will upload the content online, for example Facebook and Google’s App Engine. Finally, IaaS such as Amazon’s Elastic Compute Cloud (EC2), involves running virtualised servers for storage capacity and only paying for what is used. Companies that use EC2 get an invoice similar to an electricity bill with charges based on minutes of access and quantities of data moved or stored, (Kontzer (2008).

Cloud computing ensures that enterprise mobile access are possible. Individuals can use either personal or corporate mobile devices to access cloud computing services at all times. It is the level of accessibility provided by internet based technologies that has changed business operations and dramatically impacted on how people communicate.

The Personal Cloud

Traditional social networks have been significantly influenced by the evolution of technology, like cloud computing has greatly affected traditional social networks. People today
do define a social network differently as they would have a decade ago. The meaning of a social network has evolved from once referring to going to a social function such as a party, conference or business luncheon, (Roberts & Roach 2009). In modern society, most social networking is done through websites on the internet such as Facebook, LinkedIn and Twitter. Today’s popular definition of a social network is considerably different to what it was when technology was not so advanced. Moreover, modern social networking can be define as a specific type of website focused on the creation and growth of social networks which allow users to interact,(Coyle and Vaughan 2008).

Mobile technology and the internet have significantly contributed to the changing methods of communication that have developed over recent times. There is currently a distinct virtual element to modern communication and interaction where people can get in touch anytime. Agarwal & Mital (2009) claim that for many people, human interaction has now adopted a truly virtual dimension.

Cloud computing and mobile internet technologies have provided people with more methods through which they can get in touch with others. Social Networking (2007, p. 3) describes the internet as the “third place”, after home and work, where people connect. New forms of communication like E-mail, text messages, chat rooms, instant messaging (IM) and video calls or conferences

Various new forms of communication exist today, including e-mail, text messages, chat rooms, blogs, instant messaging (IM) and video calls or conferences. Stamoulis (2009) points out that previously there were only a small handful of ways to communicate for example phone, fax and face-to-face. The issue of communication context has always had a significant
influence on human interaction. As new technology and forms of communication emerge it remains an ongoing issue. In both personal and online communication, contextual factors can have a profound impact on how a message is conveyed and received. Social Networking (2007, p. 3) explains that an IM conversation held between meetings will have a different flavour than if the topic was discussed via the telephone. Providers of electronic communication services have tried to remedy the issue with features like emoticons however context remains a challenge in all forms of interaction. Despite the contextual issue, services including online social networks and video calling through via software like Skype can make long distance communication a richer experience. Expectations of response times and the cost of interaction have also been influenced by the changes in communication, as they can be faster and lower respectively.

Forms of communication differ from one generation to the next, with each having their own trends of preference. Stamoulis (2009) suggests that Generation X use email, cell phones and some instant messaging (IM), Generation Y prefer to text and IM and baby boomers generally rely on face-to-face or voice communication. This is potentially due to older generations not being as accustomed to modern technology due to them spending the majority of their lives without the internet and electronic devices like smartphones. Younger people, who were born into the technological realm and have grown up using the internet, will generally find modern forms of communication straight forward. Social Networking (2007, p. 5) suggests that for many young people, interacting this way is already second nature.

 Millions of people are using social networks as a way to keep in touch with people who they once knew, they know or they want to meet. Generally the type of communication conducted is of an informal and relatively unimportant nature. Coyle & Vaughn (2008, p.15) suggest that social networking sites are used for trivial communications. Although the majority of social
networking communication is not of a deep nature, web sites such as Facebook, Twitter and LinkedIn continue to remain popular for many people. The interactions people can have on these sites are different and somewhat more attractive to what was once the norm. ‘One of the reasons people return to places like these is because of the interactions they can have there, both social and professional’ (Social Networking, 2007, p.4). As more and more people use online social networks, the mobile enterprise may benefit or be at a detriment depending on what employees use the sites for. Agarwal & Mital (2009, p.107) predict that upcoming professionals will use social networks in a far more meaningful manner then current professionals.

The use of social networking via the personal cloud although increasing in popularity is not expected to replace traditional forms of communication. People will not stop calling each other on their mobile phones simply because they can leave a message or post on a social network instead. Some individuals will not embrace social networks at all and continue to communicate face-to-face or by telephone, mail and so on. ‘Social networking may be convenient for retaining contact when time and distance are issues, but it does not replace voice calls and face-to-face communication’ (Coyle & Vaughan, 2008, p.15). Social networking and other online communications can assist in the tracking of individual movement, which can be beneficial for professionals but has social implications as can be seen in recent criminal cases. ‘Like e-mail, social networking can lull you into a false sense of privacy and security’ (Wagenaar, 2010).

Communication will continue evolve as technologies such as cloud computing and mobile devices continue to improve. People can now get in touch anywhere, anytime and get a response within minutes or even seconds thanks to the internet. Social Networking (2007, p. 3) notes that as internet use increases, new means of communication, new places to communication and new avenues of interaction will continue to evolve at a rapid pace.