Assignment 2

**Mobile Cloud Computing (MCC)** is the state-of-the-art mobile distributed computing paradigm comprises three heterogeneous domains of mobile computing, cloud computing, and wireless networks aiming to enhance computational capabilities of resource-constrained mobile devices towards rich user experience. MCC can be defined as a rich mobile computing technology that leverages uniﬁed elastic resources of varied clouds and network technologies toward unrestricted functionality, storage, and mobility to serve a multitude of mobile devices anywhere, anytime through the channel of Ethernet or Internet regardless of heterogeneous environments and platforms based on the pay-as-you-use principle.

Difference between Mobile Computing and Cloud computing.

1. Mobile computing is taking a physical device with you. This could be a laptop or a mobile phone or some device which enables you to telework – working wherever you go because of the small size of the device you’re using.

Cloud computing allows you to store your files and folders in a “cloud” area on the Internet, allowing you access to all of your files and folders wherever you are in the world – but needs a physical device with Internet access to access it.

2. Mobile computing involves mobile communication, mobile hardware, and mobile software. Communication issues include ad hoc and infrastructure networks as well as communication properties, protocols, data formats and concrete technologies. Hardware includes mobile devices or device components. Mobile software deals with the characteristics and requirements of mobile applications.

Cloud computing is an expression used to describe a variety of computing concepts that involve a large number of computers connected through a real-time communication network such as the Internet.

Need for mobile computing and its advantages:

* Many people will be mobile. Hence they need mobile computing to support their daily activities.
* It is becoming as fast as traditional direct cable connections. Hence it can replaced with it, with portability as an add-on.

Advantages

* Location flexibility:

This has enabled user to work from anywhere as long as there is a connection established. A user can work without being in a fixed position. Their mobility ensures that they are able to carry out numerous tasks at the same time perform their stated jobs.

* Saves Time:

The time consumed or wasted by travelling from different locations or to the office and back, have been slashed. One can now access all the important documents and files over a secure channel or portal and work as if they were on their computer. It has enhanced telecommuting in many companies. This also reduces unnecessary expenses that might be incurred.

* Enhanced Productivity:

Productive nature has been boosted by the fact that a worker can simply work efficiently and effectively from which ever location they see comfortable and suitable. Users are able to work with comfortable environments.

* Ease of research:

Research has been made easier, since users will go to the field and search for facts and feed them back to the system. It has also made it easier for field officer and researchers to collect and feed data from wherever they without making unnecessary trip to and from the office to the field.

* Entertainment:

Video and audio recordings can now be streamed on the go using mobile computing. It's easy to access a wide variety of movies, educational and informative material. With the improvement and availability of high speed data connections at considerable costs, one is able to get all the entertainment they want as they browser the internet for streamed data. One can be able to watch news, movies, and documentaries among other entertainment offers over the internet. This was not such before mobile computing dawned on the computing world.

* Streamlining of Business Processes:

Business processes are now easily available through secured connections. Basing on the factor of security, adequate measures have been put in place to ensure authentication and authorization of the user accessing those services.

Some business functions can be run over secure links and also the sharing of information between business partners. Also it's worth noting that lengthy travelling has been reduced, since there is the use of voice and video conferencing.

Meetings, seminars and other informative services can be conducted using the video and voice conferencing. This cuts down on travel time and expenditure.