

Mobile Internet

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Abstract : *Mobile Internet refers to accessing the Internet with handheld mobile devices through wireless communication infrastructures. It provides mobile platform for mobile commerce, entertainment, and online learning. The mobile Internet market is growing rapidly due to the increasing demand for mobile phones. Many forecasters suggest that in the near future most Internet access will take place using always-on mobile devices. This paper provides a brief introduction to mobile Internet.*

Keywords: Mobile Internet, m-Internet, wireless Internet, Internet access

I. INTRODUCTION

By mobile Internet, we mean accessing the Internet with mobile devices such as mobile phones and personal digital assistants (PDAs). These mobile devices are replacing traditional desktop devices used in accessing fixed Internet. The smart devices allow ubiquitous mobile access to the Internet. Some of these latest mobile devices have cameras and sensors for location (such as GPS), motion and orientation.

Mobile Internet represents an emerging information technology that came out of the application of third generation (3G) mobile communication technologies. Some regard mobile Internet as wireless Internet that requires going online using a mobile phone or an extension of PC-based Internet. It is expected that mobile Internet allows people to perform the same tasks that they do via fixed, conventional Internet. Mobile Internet has benefited individuals and organizations in many ways such as in communication, education, healthcare, commerce, advertising, social network, entertainment and government [1]. Through the use of mobile Internet technologies such as WAP, mobile Internet allows humans to communication with each other anytime anywhere. People can meet their information needs at home, on the move, in a public transportation or in a meeting using mobile Web services.

II. APPLICATIONS

Mobile Internet is an enabling technology for all types of mobile activities. The number of users and applications of mobile Internet are growing rapidly. These include [2,3]: (1) shopping or purchasing online, selling products and services, (2) playing multi-player interactive games, music and, video, (3) learning through educational resources available online, (4) mobile

banking and stock trading, (5) online news and GPS service, (6) instant messaging such as Whatsapp and social networking such as Facebook and Twitter. The application of mobile Internet in the university education process allows people to learn wherever they are. Entertainment constitutes a significant usage of mobile Internet. It is regarded as the killer application. Mobile Internet is a fast growing enabling technology for mobile commerce in that it allows wireless devices to conduct business transactions.

Mobile IPv6 allows physical objects to be connected to IPv6 networks. This is leading toward Internet of Things (IoT), which promises a world of interconnected devices. It will increase the number of mobile devices connected to the Internet [4, 5].

III. CHALLENGES

Every new technology brings hopes and fears about its benefits or harms. The mobile Internet is no exception. A major concern in mobile Internet is location privacy and privacy of children. Another popular target of criticism is that most handheld mobile devices use small screen. This makes it difficult to present a large amount of information. Mobile devices cannot run applications that are resource-consuming due to their limited processing capabilities [6].

The cost and quality of connectivity used to be bottlenecks of mobile Internet. Improvement in these has caused some change in usage patterns.

Some mobile Internet technologies (e.g. video cassette recorder) are difficult to use and they lack flexibility [7]. In some parts of the world, mobile Internet is only used by early adopters. Its use is suboptimal due to lack of digital literacy skills and the comparatively high cost of using mobile Internet. It is sometimes hard to know which jurisdictions are involved in a transaction on the mobile Internet. International law may be important since users roam from one place to another [8].

IV. CONCLUSION

Mobile devices are becoming increasingly popular due to their mobility and connectivity. The adoption of mobile devices for Internet services has increased at a rapid rate and has caused several changes in the mobile business. Mobile phones and mobile Internet have the potential to bridge the digital divide (mobile phone ownership and Internet adoption). Mobile Internet also has the potential to provide real-time information sharing which the fixed Internet fails to do. In many cases,

mobile Internet access represents the only affordable means of getting online in developing countries.

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