Mobile Convergence

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Introduction

There is one word that can best describe the mobile device's meteoric rise in acceptance: "convergence." If you think about it, the mobile device has not created anything new, but rather has taken proven technologies and placed them in one device. Voice calling, video games, cameras, GPS, and online access were all created separately from the mobile device, but no other device was able to combine all these technologies in one unit. The result is what is popularly known as “Mobile Convergence”. The mobile device is no longer simply used to communicate by voice, but rather it has begun to become an assemblage of systems. Mobile Convergence, if looked at another way has blended voice, data and media communication capabilities into a single logical set of services giving the user unprecedented convenience. Mobile Convergence thus means more than applications and tools via mobile. Whether we are consuming video, shopping, gaming or posting, Mobile Convergence also implies the ability to effortlessly connect from any device.

What is driving Mobile Convergence?

Recent studies reveal that about 40% of U.S. mobile device shoppers want a single device that can handle their mobile communication, e-mail, and entertainment. Recently, Nielsen released the results of a study that shows consumers moving towards tablet devices, and away from laptops and eReaders. Evidently, it is an important trend that should not be ignored. The bottom line on this is that consumers want to minimize the number of devices they own and use. They want things to be simple, but comprehensive. An iPad or other tablet can do most everything that a laptop, an eReader and an MP3 player can do, and a lot more. iPad's will eventually work as Bluetooth mobile phones, as well. That's what consumers want. If somebody can carry one device that literally does everything he/she need in terms of media and communication, and it weighs a little over a pound with excellent battery life, that would simply be great! We are heading for a single device mobile solution. There will be some resistance along the way (as there always is), but the trend is already undeniably clear. Going forward the market is moving from the mobile revolution to the next level where customers are expecting an experience across different devices. More and more users are moving from the basic phones to smart phones, PDA's, tablets, IPTV and also, in the near future on devices connected to their cars.

There are other issues also. With the world becoming increasingly mobile, the demand for easier access to content and services from any location and device at any time has become a necessity. With the easy availability of video and multimedia content on the web, users now desire an equivalent, if not better, on-demand access to that content from a mobile device. With 2G and 3G in place, operators are now exploring the new fourth generation (4G) wireless technologies such as Long Term Evolution (LTE). This offers sufficient performance to support IP based streaming video and provide multimedia services to a large number of consumers simultaneously, with a quality that most will find attractive. Growth of the Internet is enabling rapid convergence of IP video, audio, and data into new applications and broadband wireless networks look promising to provide access to these anytime, anywhere. Mobile convergence thus is a necessity.

Since more and more content is being made available to the user, his/her demands on viewing this content have also increased. With technology being an enabler, users having access to new technologies is now becoming a reality. No longer does he need to view or listen to his favorite shows etc on the television. He / she can view it on his / her mobile phone or his / her smart phone or a hand held smart device such as iPad or a tablet. Growth of social networking, the need for

always being connected with family and friends has created a need for delivering content across various screens.

Some of the key factors resulting in convergence is the continual improvement in quality of experience and reduction in cost of content delivery which include

(a) improvement in air interface meaning LTE, EDGE (Enhanced Data Rates for GSM Evolution), HSPA (High Speed Packet Access) etc.
(b) improvement in delivery of video technology
(c) availability of devices and improvement in technology and quality and prices being reduced and lastly
(d) flexible deployment models.

The Case against Mobile Convergence

Notwithstanding the fact that Mobile Convergence is gaining ground, there are a few pitfalls which are:

- Cost
- Compromise
- Forces the phones to be too big
- Forces the screens to be too small
- May slow adoption of new technology
- High cost slows replacement
- Users reluctant to replace the device to gain the benefit of one new feature

Challenges of Mobile Convergence

Statistics points out that:

- Mobile Application market would be US$58 Billion by 2014 (Gartner)
- Tablet Sales will reach 171 million units In 2014 (ISuppli)
- Connected TV's to reach 122 million units in 2014 (Display Search)
- 129 million WiMax users will connect to cars by 2016 (ABI Research)

However, there are few challenges that could face with such a demand for convergence to take place for people on the move. These are:

- Multiple fragmented operating systems and browsers
- Varying device capabilities and user interface
- Ever evolving cloud based connected services

It is said that Internet is driving Mobile Convergence with over 5 billion mobile phones and another 5 billion wireless devices by the end of 2011 and wireless connectivity will be the primary factor driving the future of mobile Internet.

Mobile Convergence Future

Some predictions with regards to Mobile Convergence are:

- As already mentioned in the above section, the Internet will drive mobile convergence. It's clear that wireless connectivity is the primary factor driving the future of mobile solutions.
- Despite smartphone feature growth (the "Swiss Army Knife Syndrome"), it is still reasonable to expect that single-purpose gadgets, like digital cameras, will compete effectively with mobile phones.
- Smartphones and other wireless-connecting devices, tethered to laptops and other computing devices, will not only provide Internet access but additional functionality. For example, we can imagine a low-cost netbook not only sharing a smartphone's Wi-Fi network

but accessing its applications as well. Likewise, some people will buy super-fast wireless modems for their laptops and carry a cheaper mobile phone for phone calls.

- The majority of cell phone handsets will not have mobile Web access for many years, hindering mobile convergence growth. However, wireless device Internet access is growing. Around 1.6 billion handsets are connected to the Web as of current estimates.
- Mobile convergence of diverse communication devices will continue to grow.

Conclusion

In a world inundated with technology, we can find ourselves swamped with having to carry around different devices with different uses. The last two decades has seen the rate of natural convergence increase at a phenomenal rate, allowing manufacturers the opportunity to combine many separate items into one compact device. The mobile phone industry especially has seen convergence occur at a faster rate than any of its competitors, because of the portable nature of the devices.

Proliferation of multimedia-enabled mobile and personal devices now allows downloading, playback and streaming of movie music/ring-tones, and, wallpaper/pictures. The entertainment media industry is experimenting rapidly with business models technologies to get revenue-generating content to the consumer. Issues of importance include content ownership, content rights management, the creation of new markets such as short movies, limited duration games, movie advertisements, push sports highlights, etc. The technology side of Mobile Convergence involves devices, networks and services. The business side of Mobile Convergence involves business models, pricing simplicity, billing, payment, etc.

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