

How can broadband be brought to a wider public, bridging the digital divide between rural and urban areas, and become affordable to everyone, asks Johan Bergendahl, vice president and CMO of Ericsson

Broadband everywhere: key to the digital society



Johan Bergendahl, vice president and CMO of Ericsson

Enabling the digital society is a key priority for governments and international bodies, as the benefits of access to broadband services in social and economic terms are well established.

Broadband improves many aspects of our lives – education, healthcare, security, efficiency and, of course, communication – and facilitates industrial growth, advances in research and development, and can enable a more sustainable society.

However, only when broadband is widely available to everyone will it deliver the full benefits of e-government, e-learning and e-health.

Benefiting everyone, everywhere

While there are close to 300 million broadband subscriptions worldwide, the vast majority of the world's population does not have access to broadband. Even in developed regions such as Europe and the US, typically less than half of all households have broadband, and most of these are in urban areas. Rural areas have been left behind.

So how can broadband be brought to a wider public, bridging the digital divide between rural and urban areas, and become affordable to everyone?

The answer lies in combining existing fixed broadband delivery systems with the new generation of radio-based broadband technologies. The latest generation of 3G technologies enables user speeds equal to ADSL to be rolled out quickly and cost-efficiently to deliver high-speed broadband — to everyone, everywhere.

Telstra in Australia is a good example, having rolled out broadband access with WCDMA/HSPA to more than 98% of the population in less than 10 months.

Combining all the benefits of broadband with the added value of instant access everywhere will open up many new applications. A number of mobile broadband solutions are already taking off in mobile health, mobile email, mobile enterprise and mobile entertainment.

High-speed access to the internet is no longer limited to the urban home and office, but can be made available anywhere.

benefits – means full coverage everywhere, not disconnected islands of hotspots.

As we have learned from GSM/WCDMA, internationally agreed standards, harmonised technology and economies of scale are the best drivers of user value, affordability and simplicity. The success of the GSM/WCDMA ecosystem means there are now 2.4 billion people served by this family of technologies, while subscriber numbers on other standards are either flat or declining.

Broadband-related traffic volumes in mobile networks are predicted to grow at least 30-fold by 2012. By 2010, more traffic will be generated by data and information-based services than by voice in mobile networks.

By 2012, we expect there to be over 1.8 billion broadband subscribers. Around half of these will be mobile broadband subscribers and, of these, the vast majority, 70%, will likely to be served by WCDMA/HSPA networks and 20% by CDMA 2000 EV-DO.

But to deliver the full potential of mobile broadband means allocating sufficient radio spectrum. Even though mobile network technologies like WCDMA are being continuously developed to cater for more users, deliver higher speeds and offer improved services, mobile applications and devices are also evolving — with more megapixels, higher processing power and increasingly complex algorithms, all at an affordable price.

A key challenge is how best to use radio spectrum to ensure the performance of mobile broadband, and the widest possible access to it. The choices made for globally harmonized spectrum, technologies and standards will have a profound impact on economies of scale and service availability.

Put simply, it's little use having globally harmonized spectrum if this spectrum is made available for use by incompatible radio technologies.

Ultimately, the creation of a global mass market for mobile broadband services will not rely on having competing technologies: it is global availability, economies of scale, services and sound business models that will make the difference.

When it comes to allocating spectrum and standardizing radio technologies, regulators need to ensure and encourage efficient, free-running highways that can deliver affordable broadband to everyone, everywhere.

Ericsson is committed to deliver that vision. ■



Using radio spectrum wisely

Creating and maintaining a mobile broadband mass market – and delivering the desired digital society