

India's 3G challenge

by Rajan S. Mathews, Director General, Cellular Operators Association of India (COAI)

Mobile broadband demand in India, the world's second largest wireless market, has been quite low - only 274 million wireless data subscribers. The introduction of 3G mobile broadband will drive the mobile market and, for the first time, bring a new range of services to rural India - services at par with those their urban counterparts enjoy, such as tele-medicine, e-education, weather reports, farming practices, market and commodity prices - services that can lead to a substantially better standard of living.



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In 1994, India's teledensity was one per cent; today, it just crossed 60 per cent, and in rural India 30 per cent. India has come a long way. The transformation is due to the aggressive and sustained growth of the mobile industry, which has gone from strength to strength in recent years.

COAI members are now gearing up to launch third generation (3G) mobile broadband to bring high-end data services on mobile phones to India.

We believe that all citizens of India should have access to broadband and the transformative opportunities it offers. Broadband represents an enormous opportunity; it provides a platform to improve the quality of life of our citizens from all walks of life and increases their

opportunities to generate income and foster innovation. Broadband-based services help businesses reach new markets, improve efficiency and enhance the government's capacity to deliver critical services. Availability of broadband services attracts new investment, creates jobs, provides a larger and more qualified labour pool, and increases productivity through infrastructure creation and access to new and improved services.

Demand for mobile broadband has been dismally low in India. Fixed-line broadband in India, as of June 2010, counted upon only 18 million Internet subscribers, whereas there were 274 million wireless data subscribers. Wireless simply enables faster broadband rollout; it should be the preferred route to build penetration.

Higher bandwidth coupled with technological innovation will radically change the country's mobile market, as the higher speed data throughput enables the delivery of a wide array of multimedia services, such as video streaming, music, movie downloads and mobile TV.

The introduction of 3G is exciting for rural India as well. It will bring connectivity - for the first time - to India's enormous population in rural and remote areas. It will bring them a whole new gamut of services that can significantly improve the quality of their lives and, in many ways, bring them services at par with those their urban counterparts enjoy through services like tele-medicine, e-education, weather reports, farming practices, market and commodity prices.

Introduction of 3G will not only provide operators an opportunity to enhance their service offerings and expand service to rural areas, but in the process, will also generate new revenue streams for the operators - sorely needed in a scenario of rock bottom tariffs and ever falling ARPU.

Key challenges

It will not be simple to expand 3G services. A number of important issues must be resolved including the lack of local vernacular content, the need to increase interest in and demand for 3G broadband, the lack of sufficient radio-spectrum, the cost of deployment, regulations for tower placement and right-of-way, base station power supplies and the need to channel monies from broadband spectrum auctions into a National Broadband Fund.

Availability of vernacular content - Ample local language content will be a key enabler for the uptake of mobile broadband amongst the rural masses. Without suitable, pertinent, content, people have no reason to adopt 3G.

Increase in demand - Demand for 3G must increase in order to justify its deployment and to guarantee a return on the investment. Demand will increase to the extent that people feel that mobile broadband is useful and this depends upon how they perceive the economic or personal value they derive from it. It also depends on their awareness of the ways that broadband usage can enhance their productivity and quality of life or benefit society.

There is a need to develop content and applications for the local population that are relevant, usable and understandable. The availability of an abundant variety of mobile applications is essential to attract new users. Many stakeholders - service providers, vendors, developers and content producers - are investing heavily in the creation of application (*app*) stores which let users browse and download applications at little, or no, cost. This trend is likely to increase.

More spectrum - Globally, mobile operators have enough spectrum to promote data services aggressively. India, however, only auctioned 2x5 MHz of 3G spectrum thus far; with such limited spectrum, operators must be cautious about how aggressively they offer data-intensive services. Given the exponential growth of mobile data services in other countries, we believe that there is a need to allot more spectrum for mobile broadband services in the near future.

Financing the deployment - The telecom sector has a high-cost structure and, compared to global benchmarks, the total levies and duties paid to governments at every level in India are high, so there is a need to rationalize the cost structure of the sector and make it possible to provide affordable services.

Uniform tower policy - At present, each state, municipal body and civic authority has different policies and guidelines regarding cell phone antenna towers; this complicates and impedes the growth of mobile communication in the country.

In some cases, state government, local or municipal bodies have banned the installation of towers in residential or other specified areas. If 3G services are to be successful, uniform, countrywide, guidelines and policies are needed to facilitate the installation of towers, cables, optical fibres and the like.

Right-of-way (*RoW*) - The exorbitant right-of way charges levied by many municipalities are weakening the service providers' business plans. Operators must frequently deal with a number of agencies to obtain RoW clearance; this delays the network rollout and increases the cost. The situation is worsening; recently, many municipalities have begun to impose additional levies. RoW permission should be dealt with on a priority basis, be granted within a specified timeframe and be reasonably priced.

Availability of power - An uninterrupted power supply is of paramount importance to high-quality mobile broadband service. We believe it would be in the public interest to supply power to service providers at subsidised rates so operators can provide the public with mobile broadband at more affordable rates. Keeping in mind the lack of power supply in many rural areas, the Government should consider providing support from the USOF (*Universal Service Obligation Fund*) to supply power for the BTSs (*base transceiver stations*) and BSCs (*controllers*). Further, the USOF should provide special subsidies to service providers who deploy alternate energy sources in rural networks.

Building a broadband fund - The Government has earned far more from the 3G and BWA (*broadband wireless access*) auctions than was originally anticipated, so it would be desirable and appropriate that

part of the funds - say, at least, 20 to 30 per cent - received from the broadband spectrum auctions be channelled back into the sector in order to help achieve the nation's broadband objectives. Whenever broadband spectrum is auctioned in the future, part of earnings from those auctions should be transferred to the National Broadband Fund to further broadband service development.

Future prospects

India is the world's second-largest wireless market so 3G broadband has a huge potential market.

The country's 600 million mobile users, availability of low-cost handsets, limited availability of other broadband services, a growing number of 3G-enabled handsets, India's young demographic profile, growing demand from the enterprise sector and greater use of Value-added services will all help to drive 3G-service uptake. The government is currently investing heavily in social sector programmes. Such programmes as the Employment Guarantee Scheme (MGREGA), National Health Mission, and Sarv Shiksha Abhiyan are all infusing significant amounts of money into rural economies and local spending power is on the rise. With greater spending power the ability to pay for new technologies such as broadband is on the rise.

With 3G, we expect the following trends to emerge:

Web-browsing is likely to be the most used mobile broadband service in India, with music and video-related services following close behind;

data services will be segmented by type and subscription plans will be tailored to the needs of each sector of the population, with the tariff plans being highly competitive and innovative;

price - affordability - will probably be the most important determinant of 3G service take up, followed by content;

and, initially, 3G services will be concentrated among urban subscribers. ●