Broadband brings monopolistic tendencies back to telecom

by N.K. Goyal, President, CMAI Association of India

During the nineties almost every country in the world seemed to be privatising its government monopoly telecom network. Private telco operators brought revolutionary changes to the telecom sector, with positive impacts on teledensity, economic development and empowerment of citizens at the bottom of the pyramid. Yet with broadband penetration we are again in a government monopoly-like situation where several countries are announcing investment plans and grants for the development of broadband. What are the latest trends and why is private investment not forthcoming in broadband? What are the ways forward?

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Mr Goyal has presented several papers internationally on topics of public concern such as e-waste, radiation, telecom, IT, manufacturing, and excellence in performance.

The nineties saw a large dose of privatisation in the telecom sector. Country after country invited private telcos to invest and provided various incentives for their growth. The sector moved from monopoly to duopoly to oligopoly. In the Indian context this resulted in about 13 telecom operators competing for subscribers. Private telcos brought in tremendous development. In India, within 10 years, subscriber numbers increased to 560 million.

Electronic and knowledge connectivity leads to economic connectivity which in turn results in inclusive growth across all sections of society. Now, during the 21st century, the growth and development of a nation is increasingly reliant on advances in Information and Communication Technologies (*ICTs*). The penetration of global broadband subscribers was only 0.3 per cent in 1998 but reached 10 per cent within the last four years. Of the world's estimated 6.6 billion people, 1.1 billion were online as of December 2009, with broadband subscribers numbering about 570 million. By 2013 global broadband subscribers are expected to surpass 1 billion.

Although ICTs have spread rapidly in the last decade, penetration levels are still insignificant in many rural areas across the world. This is certainly true in India. The broadband penetration in India presently is barely 8 million, less than 5 per cent. The targets set by the government for broadband have not been achieved due to a variety of reasons. In India, more than 70 per cent of the population living in rural areas would benefit from education, telemedicine and financial services enabled on the broadband network.

Governments have realised the impact of telecom growth on gross domestic product and economic development. Telecom also empowers the lowest citizens at the bottom of the pyramid. Countries are realising that e-governance is the key to economic development and they now see the need to increase broadband penetration. Governments are also realising that broadband growth is necessary for job creation.

This, however, needs massive investment. In India, investment of US$2.6 billion by 2010 and US$5.35 billion by 2020 will be needed to achieve the necessary growth. This investment is needed primarily in the areas of urban networks, domestic and international backhaul, content delivery and rural build out. Internet access via mobile is gaining momentum. In many parts of the world, the first screen seen by a citizen is a cellphone. More than US$140 billion revenue is expected from mobile broadband by the year 2014.

Interesting things are happening right now. Although each telco swears by broadband and does everything possible to get spectrum, the country and its citizens are still crying out for broadband and Internet access. Private

initiatives resulting in broadband networks are lagging way behind compared with the penetration of wireless. Every telco now expects the government to provide stimulus, subsidies or grants. Pressures are mounting on governments to be proactive and to deliver additional investment and subsidies to close the gaps in broadband. Several governments are now announcing grants and investment plans for broadband.

Major successful search brands such as Google, Yahoo and MSN are fast developing solutions for the mobile Internet.

Latest trends

The USA has announced a US$7.2 billion broadband stimulus package as a means toward transforming rural and low-income areas. This package comes with net neutrality conditions, with the result that none of the major operators, constituting 85 per cent of existing lines, have applied. A further factor discouraging applications was the fear of stringent regulation and investigations into business practices. So far there have been numerous applications for grants by not so well-known smaller companies.

Australia has created a separate Ministry of Broadband. Broadband penetration of households is already over 90 per cent using DSL or cable modems. The government has announced a $31 billion project to get ahead in the emerging high-tech global economy. The plan is to lay fibre to the home and other networks to cover 90 per cent of the country with 1Gbit/s access by 2014. They have formed NBN Co, which will get the majority of its funding from the government, supported by contributions from the Building Australia Fund and Australian infrastructure bonds.

Finland has recognised broadband as a fundamental right and is planning 100Mbit/s for all citizens by 2013. Broadband of 1 Mbit/s is already available to 90 per cent of citizens.

Canada has a household broadband penetration of 94 per cent, although 22 per cent of rural households are still without broadband. In July 2009 the Canadian government announced Broadband Canada Connecting Rural Canadians as part of Canada's Economic Action Plan, giving $225 million to Industry Canada for development and implementation of a strategy for improving broadband coverage. The Federal Government supports up to 50 per cent of the cost of network equipment purchases and hardware/software upgrades, as well as long-term network capacity investment costs.

The UK government announced its Digital Britain Plan to deliver 2Mbit/s broadband to all citizens by 2012.

South Korea has 43 million mobiles of which one third are on 3G networks. About 50 per cent of them can deliver more than 50Mbit/s. The state has invested a lot in broadband penetration for all citizens.

Malaysia wants to boost broadband penetration to 50 per cent by 2010. They would like competition based on services, not infrastructure. The government is co-investing $284 million and Telecom Malaysia US$3.2 billion.

The Infocomm Development Authority (*IDA*) in Singapore has planned a S$1 billion investment for its National Backbone Network which aims to cover 95 per cent of Singapore by 2012. IDA is investing S$750 million. The project operates on three levels. OpenNet is planning to roll out the dark fibre for the 100Mbit/s network. This fibre would be sold to the wholesale provider Nucleus Connect, a StarHub company, which will sell to retail service providers. OpenNet is supported by SingTel, Singapore Power, Singapore Press and Axia NetMedia, Canada.

China has announced a £300 million project to provide every family with broadband and link them to their children's schools to access progress reports on attainment, behaviour and other needs. It involves the nationwide rollout of a home access programme to get laptops to 270,000 families by 2012.

The French government in January 2010 detailed investment plans of €5.4 billion for building fibre outside cities by private investors.

The Portuguese government in January 2009 announced €800 million credit plus a €60 million tax break for connecting 1.5 million homes through fibre to the home.

The European Commission plans to lay down guidelines for government funding to boost broadband rollouts to ensure higher levels of broadband coverage.

Factors behind low private investment

Private sector business models expect returns to shareholders and projects that put profitability first without any linkage to social service or economic growth. The low paying capacity of rural subscribers, costs of laying fibre, rights of way and building cell towers throughout the country make telcos see an unviable business. Government on the other hand is not constrained by these factors.

The laying of dark fibre around cities can be viewed as a civic utility infrastructure, similar to sewerage and electricity, with the consequent need to avoid duplication. Is that not the return of a government monopoly?

Government's constraints

Governments always have budget constraints when acting alone on large scale projects. Governments also have limitations on meeting timelines because of transparent procurement procedures coupled with answerability to the public at large. In the Indian context that includes the Right to Information Act, Central Vigilance Commissioner, Auditor General, and scrutiny by Parliament. The higher the level of government control, the less chance there is of competition for the private sector. So there is need for out-of-the-box thinking on public private partnerships.

Ways forward

One fundamental issue is the urge for governments to earn revenue. While on the one hand government wants broadband, on the other hand it always plans to earn maximum revenue from the auction of spectrum and other available resources. There is a need for government to donate spectrum to rural and under-served areas as a social cause.

One way forward is for local government and utility departments who need broadband for education, medicine or e-governance to build the infrastructure from government funds with private sector involvement wherever feasible and then lease it out to an Internet service provider or a telecom operator for applications, operation and maintenance.

In most sectors throughout the world there has been co-existence of large and small players. The Indian telecom regulator TRAI has recommended allowing niche operators to establish networks in smaller areas of their choice, as against the present policy of granting permissions only for the entire State. This concept needs to be encouraged.

The Singapore model can also be considered. This model creates four separate levels: infrastructure, network services, value-added services and applications, allowing enough room for both the government and the private sector to play their roles. However, several players competing on top of a near monopoly-based infrastructure will need appropriate and proper regulation of privacy and security issues. ●