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Creating connectivity that everyone can afford



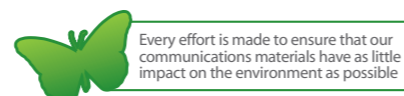
The internet. The next billion. Connected.



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People need to communicate and they need information.

Communications and information services are daily necessities that repay many times over the investment that consumers make in them.

Nowhere is this truer than in the world's emerging markets. The mobile is a force for change for many people in emerging markets, helping to improve their prosperity and health, and staggering growth potential remains.

The evidence shows that greater use of ICT improves people's economic situation and their quality of life. Consumers gain more spending power, which naturally drives up demand for services, creating a virtuous circle of unstoppable growth. Research¹⁾ shows that a 10 percent increase in mobile penetration boosts GDP by 1.2 percent.

Since the next billion mobile subscribers will come mainly from the lower-income segment, mobile communications needs to be affordable. For consumers, affordability translates into total cost of ownership (TCO). TCO is the total amount needed to buy and use a mobile phone. This includes the price of the mobile device, the price of the service and the tax and duties levied on both.

Connectivity Scorecard – measuring the effectiveness of ICT

The Connectivity Scorecard is a ground-breaking measure of how well ICT investments are used by different countries. Devised by Leonard Waverman, Professor of Economics at the London Business School, the scorecard incorporates about 30 indicators of connectivity to assess the infrastructure, its use and available skills in the consumer, government and business sectors.

The measure clearly demonstrates that by offering more services that can generate economic benefits for users, communications service providers (CSP) can help to create a better market. They can build greater trust with their customers that will generate long-term growth and bring other benefits such as lower churn. Governments too have a clear role in actively helping the business ecosystem to develop.

<http://www.connectivityscorecard.org/>

According to Nokia research a TCO of less than 5 US dollars per month would enable the majority of people in emerging markets to access and use mobile services. Yet today, the average TCO for the lower-income consumer is about 13 US dollars.

Making communications services more affordable

A major part of achieving lower consumer TCO is the deployment of a mix of innovative technology and novel business models to minimize CSPs' capital and operational expenditure (CAPEX and OPEX).

The type of novel thinking required is demonstrated by Nokia Siemens Networks Village Connection. The solution combines a network architecture based on off-the-shelf GSM infrastructure with an innovative



franchised business model in which call management and service is controlled by a village entrepreneur. This allows a rural network to be built at a much lower CAPEX, as well as eliminating considerable operational expenses. The solution's GSM air interface also means that end users can use some of the most cost-effective mobile devices in the world.

Nokia Siemens Networks is also helping to bring new commercial models to businesses in rural areas with its recently announced eCommerce system. This integrated online shopping solution enables businesses to reach rural consumers via their local village shops. Not only do villagers gain access to a wider selection of reliable consumer products, but urban suppliers are provided with a new sales channel reaching the mass market in villages.

The new system provides a realistic business model for CSPs looking to deliver Internet services to rural communities, bringing new revenue opportunities and a raised local profile.

Deploying the latest network technology

Networks and their support functions typically account close to 50% of net OPEX in emerging markets. A sharp focus on reducing the power consumption of base station sites, sharing site infrastructure to reduce capital costs, and solutions that cut backhaul costs will contribute to lower TCO.

Taxation threatens growth of Pakistan mobile sector

The exceptional growth in mobile subscriptions and decline in tariffs in Pakistan that has been achieved by the country's 2004 Mobile Cellular Policy is being jeopardized by recent rises in taxation. At 3 US dollars, Pakistan is one of the lowest ARPU countries in the world and with a mobile penetration of less than 60 percent, holds tremendous growth potential from its 160 million population.

However, the sector has been hit recently by tax increases, including a rise from 15 percent to 20 percent in taxation on telecommunications services; a Rs. 750 duty on handset imports; and the retention of a Rs. 500 activation tax per SIM. In addition, stringent SIM verification procedures are also hampering growth.

Not only does such a high level of taxation stifle growth, but the import duty risks creating a black market for handsets and leaves the door open for fake and non-genuine products to enter the market, raising service quality issues for the CSPs and potentially poor handset quality that could affect consumer confidence.

Nokia Siemens Networks Flexi Base Stations achieve significant energy savings at each base station site. By raising the ambient operating temperature of the base station the need for power-hungry air conditioning is reduced, with fresh air cooling being used instead.

Software functions can also be used to balance energy consumption with traffic flows. Base stations can be set to save power during low usage times, such as at night, and by putting the downlink transmission into idle mode when possible.

With lower network costs, the CSP is in a stronger position to offer lower-priced services to its customers and still remain profitable in its business.

Eliminating the tax brake on growth

Mobile phones are no longer an expensive luxury and should not be treated as such by regulators, governments or any other stakeholder. Yet in many countries high taxes on mobile communications are threatening

to suppress economic and social development.

A GSM Association report on mobile taxation in sub-Saharan Africa reveals that the mobile industry is one of the largest contributors to government budgets, contributing 7% on average, and is the most efficient tax collector in Africa. Yet a more favorable tax regime would result in an additional 43.4 million mobile subscribers in those countries most affected, increasing the 2012 projected penetration rate from 33 percent to 41 percent.

"By removing luxury taxes on mobile consumers and moving to a more optimal tax structure, many millions of Africans will be able to afford to connect to and communicate on mobile networks for the first time," says Gabriel Solomon, senior vice president of the GSM Association. "In addition, governments will reap incremental increases in tax payments from the industry and wider economic and social benefits will be enjoyed by all."

