

Ericsson Communications Expander helps operators reach their full potential in high-growth markets

Today there are almost three billion mobile subscribers globally and there are likely to be more than five billion by 2012. Many of these new subscribers will earn less than US\$2 per day. Ericsson Communications Expander enables mobile operators to meet the challenge of serving a growing proportion of lower-income users, while also increasing usage among new and existing higher-income users.

Mobile communication has a positive socioeconomic impact both at a micro and macro level. At the micro level, mobile communication improves everyday life by increasing job opportunities and individual income, building stronger social networks, enhancing security and reducing the need for travel. At a macro level, mobile communication boosts efficiency, increases employment, enables leap-frog technology development in rural areas, stimulates GDP growth, and drives societal development overall.

Better access to communications can help to lift a country's economy by stimulating business and revenue-creating opportunities. A 2005 report by Leonard Waverman of the London Business School estimates that the typical developing nation sees its economic growth rise by 0.6 per cent for every 10 per cent increase in the number of mobile subscribers. In 2007, the GSM Association applied Waverman's methodology to a group of 57 developing nations and found that the impact was doubled, boosting economic growth by 1.2 per cent for every 10 per cent rise in mobile users.

During 2006, around half a billion new subscribers signed up to GSM. The vast majority of these – and of the next two billion additional subscribers predicted for GSM over the next few years – will come from new high-growth markets. These people may have lower purchasing power on average than today's subscribers, but their sheer numbers mean they represent a substantial growth opportunity.

Addressing these 2.5 billion new subscribers means serving more customers – with additional services – in existing coverage areas, as well as adding new customers by expanding coverage. Ericsson Communications Expander minimizes the time, investment and risk involved for operators looking to achieve their full potential in high-growth markets in three key ways:

- boosting business from existing assets
- building new opportunities, as mobile communications help micro-businesses thrive
- adding extra ingredients to the networks in line with revenue growth.

Boosting business from existing assets

By maximizing network utilization – making existing assets work harder – operators can boost their profitability from existing coverage areas. For many operators, this means attracting new subscriber segments within these areas, for instance by stimulating traffic outside geographic and time-of-day peaks.

Basic consumer needs are similar, but the business models to reach the consumers are different. Revenue management solutions need to enable operators to meet these different needs by offering a variety of subscription packages. For example, they can be used to offer different peak and off-peak tariffs and micro top-ups that make services more affordable and lower entry barriers.

The challenge is to address new lower-income segments, while still retaining the higher-ARPU customers. This can be addressed in four key ways: by having different brands for each customer segment; by having different pricing models for each segment; by setting different levels of service quality (which is technically possible, but not widely used); and by offering differentiated service distribution and customer care levels.

For example, in Nigeria, mobile operator MTN has a variety of top-up vouchers, with a wide variety of values and validity periods. The lowest value top-up vouchers have very short validity periods (just a few days). It also has well-defined service brands targeted at customers with different levels of spending, along with a variety of loyalty and promotional schemes.

Similarly, in the Philippines, Globe Telecom has also introduced a wide variety of branded, targeted offerings that, along with electronic refills and money transfers, have increased traffic among low-income segments.

Building new opportunities, as mobile communications help micro-businesses thrive

Research conducted through Ericsson Consumer Lab in high-growth markets has discovered the importance of the mobile phone to users as a way of investing in their future. People calculate that they have to spend money to make money – mobile communications is less for social calls and more a tool for securing a better livelihood. The research found that people can double or triple their income by being connected to a mobile phone network.

Ericsson Consumer Lab surveys also show that people in lower-income segments are willing to spend a higher portion of their income – 5–20 per cent, compared with the average 2–10 per cent – on mobile communication because it opens up new income opportunities, especially for the self-employed and micro-businesses. Empowering services enabled by mobile communication include the ability to access information, make financial transactions and to pay with transferred airtime.

The survey results from Kenya show the typical spin-off benefits from the ecosystem created when mobile communication extends its reach. Several small businesses build up around mobile telephony, offering everything from the mobile phones and top-up cards themselves, to repairs and recharges.

With GSM, there is also one enormous socioeconomic advantage: the possibility of affordable broadband access to the Internet. As Enhanced Data rates for Global Evolution (EDGE) becomes a standard capability in both GSM and WCDMA phones, there is good business potential for using EDGE to provide shared Internet services to rural areas. Ericsson EDGE already delivers 250kbit/s with 150ms latency – good enough for almost all mobile broadband applications today. Soon, EDGE Evolution will deliver up to 1Mbit/s with latency below 100ms.

Adding extra ingredients to the networks in line with revenue growth

In high-growth markets, it is important that the mobile network can be scaled to meet growing demand cost-efficiently, and this means designing and building a network that provides lowest possible Total Cost of Ownership (TCO) from the start.

As the number of users, range of applications and traffic volumes grow, operators need to be able to build out the network – both in urban and rural areas – in a way that still enables them to make money on services provided to low-income segments. Operators in high-growth markets have the opportunity to leap-frog technologies and use best-in-class designs, based on all-IP technology. They can also choose to develop, buy or lease equipment or applications in a way that suits their business model.

The cost of equipment is only a small proportion of total network running costs, while power consumption is a significant part. It is therefore vital to design and expand a network that is energy-efficient as a key contribution to low TCO.

This can be achieved through the deployment of slim network architecture that still provides the desired coverage, capacity and speech quality. By introducing mobile softswitch solutions into the core network, operational costs can be reduced by up to 50 per cent. And good radio coverage solutions enable a reduction of sites in rural areas by 30–50 per cent. Such optimized network designs reduce power consumption by 10 per cent through radio network efficiency. Taking all other factors into account, including the reduction in transportation and site visits, energy consumption is reduced by half.

The next step is to deploy energy-efficient radio equipment to optimize the operation of each site, which also opens up opportunities to use alternative energy sources. The ‘main remote’ concept can cut power by two-thirds. Another way of managing radio equipment to reduce overall energy consumption is to use standby modes during quieter periods. Ericsson can provide technical solutions and professional services to ensure minimal operation and maintenance effort from the start.

By deploying solutions that are prepared for future technology advances, operators in high-growth markets can leap-frog more established markets through best-in-class solutions. Ericsson's approach is to use cutting-edge technology, with large-scale efficiency. Our solutions are prepared for future needs, enabling operators to upgrade their initial voice networks with EDGE-based data capabilities, as well as to evolve to mobile broadband based on HSPA. This is especially valuable in markets with limited fixed line infrastructure.

Ericsson is shaping the future of Mobile and Broadband Internet communications through its continuous technology leadership. Providing innovative solutions in more than 140 countries, Ericsson is helping to create the most powerful communication companies in the world.

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