

# 3G

Ticking the boxes  
for 3G success

Bringing 3G to emerging markets is an exciting opportunity, and it's not even a complex process, particularly if you choose the right technology and business partner. There are five key aspects that need to be addressed when evaluating potential 3G partners – business insight, proven experience, technology approach, products and services and technology evolution.

# 1. Business insight: Providing the ingredients of success

Nokia Siemens Networks in-depth understanding of today's 3G is built on thorough, independent research commissioned according to tailored criteria. With our user insight studies, global experience of 3G, and expert consulting services, we are well placed to help you create a viable 3G business plan covering business strategy, target segments, services, pricing and payment schemes.

Rolling out 3G is not as difficult as it may seem, as you will already have most of the skills in place and most of your equipment – backhaul, switching, core, transmission – will not need to be replaced.

It is crucial to approach the launch of 3G in a way that suits your own operations. That is why our worldwide team of consultants, combining experience from over 170 consulting engagements, focus on delivering genuine business improvements that relate directly to your specific situation.

Our customers include many of the world's leading telecom communication service providers (CSPs), who rely on us as a trusted partner to act with integrity and in their best interest.

One recent project for Telcel Mexico, an affiliate of América Móvil, provided a solution combining infrastructure and services based on High Speed Packet Access (HSPA) standards built on to our Flexi BTS technology. Telcel has achieved a huge success with its mobile broadband prepaid offering, initially allowing one, two, seven or 30 days of unlimited access.

## Insight identifies opportunities

Nokia Siemens Networks' business insight is typified by a study commissioned by us which looked at broadband worldwide. Nearly ten thousand interviews were conducted across mature and emerging markets revealing a wealth of detail about how users benefit from 3G and underlining the real business opportunity in emerging markets.

In Peru, for example, 12.9% of the population has access to a PC, but only 2.5% have Internet access – 3G can rapidly unlock this potential. Affordability of 3G devices is improving too, with Strategy Analytics, in its '3G Scenarios in emerging market' report, claiming that 3G handheld terminals are already available in the 100 USD price range.

## 2. Proven experience: A worldwide footprint

Nokia Siemens Networks' wealth of knowledge and expertise, obtained from numerous global installations, makes us No.1 in the 3G market. 134 million subscribers are connected via our 3G networks, more than half of 3G subscribers worldwide, while 132 CSPs use our 3G Radio Access technology and 72% of the world's 25 biggest 3G CSPs depend on us for competitive edge.

A key skill is bringing systems together to find the approach that works best for your business. Through systems integration we combine products, processes and capabilities that deliver real end-to-end solutions matching your specific needs.

A typical beneficiary of this experience was Philippines-based Smart, which launched 3G services in 2006.

The company has an ambition to make the Internet experience available to every Filipino and sees great value in partnering with Nokia Siemens Networks on the rollout of services to make this possible. Having upgraded the Nokia Siemens Networks-provided HSPA network, starting with key areas in 2008, its latest plans see the launch of Sandbox, the portal of services behind Smart's mobile broadband offering.

"As we enter the mobile Internet space, it is very important to learn from those who have done it already. Nokia Siemens Networks has a presence in many areas where mobile broadband has been in play for a long time. There is huge strategic value in partnering with Nokia Siemens Networks because we can leverage their experience to enhance our execution."

**Bong Mojica, Head,  
Wireless Consumer Division, Smart.**

### 3. Technology approach: Solutions matched to your challenges

Solving your challenges takes a comprehensive solutions approach, combining technology and services such as consulting to give you exactly the answers and business benefits you need. Our expertise extends to the crucial areas of supporting multi-vendor networks and assured interoperability between 2G and 3G infrastructure.

Our 3G solution for emerging markets is designed to meet the key challenges typically emphasized by our customers:

- How to ensure the lowest total cost of ownership for the whole network infrastructure, including capital, operation and implementation expenditure
- How to achieve fast time-to-market for the 3G service
- How to provide highest efficiency for the voice service without compromising the quality
- How to build the coverage and capacity so that all targeted customers can enjoy good service quality
- How to define and implement the relevant pricing models and make the services (especially wireless broadband) affordable for each targeted customer segment

“With charge@once select, we are leading the way in moving the charging function out of the operational domain and into the marketing domain. Using its wide range of ready-made marketing use cases, we can quickly configure our charging systems to support new customer offers, and therefore work more effectively to improve the long-term experience of the Zain brand.”

**Mr. Khaled Al-Hajeri**  
CEO, Zain Kuwait

An example is our unified charging and billing solution, which allows you to provide the service at the right price and in the right increments to users. As well as providing a high-income user with monthly contracts, it can also allow lower income users to buy Internet access time in increments as low as half an hour.

Using the Nokia Siemens Networks charge@once solution, Zain Kuwait can cut pre-launch delays caused by traditional charging systems and respond more rapidly to customer needs with targeted services and promotions.

## 4. Products and services:

# Technology that works to your advantage

Flexibility and low operating costs are vital to meet the need for affordable 3G access. This entails the deployment of networks based on multi-radio access nodes that offer features such as frequency re-use, multiple radio technologies in one cabinet and GSM/EDGE inter-working. Base stations that offer low OPEX are also vital, while the option of sharing network resources can offer significant cost efficiencies.

Together with our partners we can offer the right and most cost-effective technology to meet all these criteria, as well as a common 2G/3G core network and common OSS/BSS for managing networks, services and terminals.

Flexible network elements that offer the lowest possible CAPEX and OPEX, which can also grow to match demand precisely, are vital. The award-winning Nokia Siemens Networks Flexi Base Station platform supports several radio technologies simultaneously, including LTE, WiMAX, WCDMA/HSPA and GSM/EDGE, as well as supporting 850/900 MHz deployments for improved coverage.

### The leading end-to-end 3G solution

Our end-to-end 3G solution supports your business aims, from basic connectivity to service offerings and charging and billing plans.

- Market-leading **3G radio access solution** with around 150 customers, based on award-winning Flexi Base Station
- Market-leading **voice softswitch (MSC Server) solution** with 220 customers
- Market-leading **IP transport** solution with 745 customers
- Market-leading flat architecture, direct tunnel **packet core solution** operational in more than 10 commercial network deployments
- Award-winning, market-leading (over 600 customers) **NetAct™ Operations Support System (OSS)**
- **Charge@once charging and billing system** with over 250 charging CSP customers globally (including mobile and fixed)
- Reliable and professional **integration and care services** with more than 500 systems integration projects accomplished so far, with 2500 experts worldwide

## 5. Technology and business evolution: Providing continued success

Once the mobile broadband service takes off, network capacity needs to be used effectively to maintain profitability. Our solutions help you add new capacity cost-effectively. They also allow you to smartly limit service usage of heavy data users - or upsell them additional capacity.

What's more, you can further differentiate your service offerings by providing at different prices a wider variety of data packages with different data speeds, quotas and priority levels.

Later on, as the addressable 3G market moves towards saturation, CSPs can expand to new, lower income segments and as they do, knowing the needs and expectations of these segments becomes ever more vital.

CSPs have the advantage of knowing a great deal about their customers, yet, 87% of CSPs do not draw this wealth of data together to give a unified view. Subscriber data management is the key to getting this complete overview, understanding customer needs and being successful in these new segments. The Nokia Siemens Networks One-NDS (Network Directory Server) offers a complete subscriber data management solution giving a single view of subscriber data.

Subscriber data management's numerous benefits include reduced time to market for applications from months to weeks, capital and operational expenditure cut by up to 55% and an enriched customer experience.

Although 3G is currently being considered as a new offering for many emerging markets, its success will lead to ever growing demand for greater capabilities. Evolving your offering to Long Term Evolution (LTE) will bring huge new business opportunities, with the added advantage that

LTE can be rolled out on top of existing infrastructure, giving today's investments in 3G a long life. Nokia Siemens Networks' current hardware is already prepared for LTE, helping to make the transition smooth and cost effective - our capabilities in evolved 3G saw us selected as Super3G vendor to NTT DoCoMo in Japan.

3G for emerging markets  
is the future of sustainable  
growth and profitability.  
Nokia Siemens Networks is  
the partner to help you build  
that future.

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