

# Are you ready for new growth opportunities in saturated mobile markets?

**Nokia Siemens  
Networks**



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# 1. Executive summary

Research shows that 80% of a company's growth results from its decisions on how and where to compete.

In the saturated mobile voice markets of Western Europe and North America mobile handset penetration rates now reach from 80 to 120%. Western Europe and North America will only contribute 8% of the 1.7 billion global net mobile subscription additions expected between 2009 and 2013.<sup>1</sup>

What new growth opportunities exist for communication service providers (CSPs) in these regions? We look at three growth opportunities where CSPs can leverage their connectivity assets.

CSPs that use these growth opportunities will increase the long-term value of their business. How can these growth opportunities be addressed? We use a framework called a growth map which lays out the options.

The growth map shows three methods for growth – using growth opportunities, carrying out mergers and acquisitions, and gaining market share. Combined with a time horizon – near, medium, and long term, this gives a 3 x 3 table of strategic options. The clock for the horizons, however, will differ from market to market.

This paper focuses on using growth opportunities with the following near, medium and long term strategies:

**Shift your resources to your best growth opportunity**

- mobile internet

**Invest in underserved opportunities**

- subscriber data management and connectivity based profiling

**Step out into white spaces**

- targeted advertising

Surviving the global recession is crucial, but taking steps to secure future growth opportunities is essential – the grow-or-go dynamics are an unforgiving environment. CSPs that invest in new growth opportunities will be in pole position when business recovers. In saturated mobile markets, optimizing, leveraging and monetizing your connectivity assets are pragmatic steps towards new growth opportunities.

<sup>1</sup> Source National Regulatory Authorities and Statistical Authorities in the countries; forecasts by Nokia Siemens Networks

## 2. What is the outlook for the mature cellular voice markets of Western Europe and North America?

With penetration rates ranging from 80 to 120%, CSPs in Western Europe and North America now face a mature cellular voice business. Here, CSPs focus on efficiency, minutes of use, and SMS / MMS volumes for existing subscribers. Even with fresh propositions and operational excellence, growth in cellular voice telephony will be difficult to achieve for all players.

North America and Western Europe will only contribute 8% of the global mobile net additions expected between now and 2013.

Mobile voice revenues will remain steady at €228 billion, and will still be the main revenue generator in 2013 for mobile CSPs. With lower termination rates and roaming fee cuts, there is little room for growing voice revenues.

Growth opportunities still exist, including growing under-penetrated segments, boosting fixed-to-mobile substitution and developing MMS usage, but growth in cellular telephony is no longer a given and much more effort is required to make it happen.

So where are the new growth opportunities? And with the global recession, shouldn't the focus be on efficiency?

### **The global recession remains centre stage**

Right now the global recession remains centre stage. In 2007 and the first half of 2008 it was about the banking crisis. From the second half of 2008 to 2009 it is about the macro crisis.

Over the last half century, how many recessions have we witnessed in rich countries?<sup>2</sup> One hundred and twenty two. Of these, how many combined a recession, credit crunch, a house price crisis and an equity market crisis? Only four. So the current crisis is not a frequent event, but it is not unique either.

What is the relevance for CSPs? The telecoms collapse of 2001–2003 was relevant because of excess network capacity or high debts from auctions of spectrum licenses. Today, CSPs have stronger balance sheets, steady cash flow and growth opportunities in broadband.

According to Andrew Scott, Professor of Economics at London Business School, "There's not enough focus upon what the world will be like when we get to recovery." The credit crunch and ensuing financial crisis has changed the global business landscape and whilst survival is critical, taking steps to secure future opportunities is essential.

The global recession raises the following question: Which projects should be maintained because they support long-term growth opportunities?

Research confirms that growth really matters, and not just to a company's performance, but to its very survival. The grow-or-go dynamics represent an unforgiving environment for CSPs.

<sup>2</sup> Recession is when we have two consecutive quarters of negative economic growth.

**Using growth opportunities**

CSPs can use three components to achieve growth, summarized in Table 1, the growth map: (i) use growth opportunities, (ii) carry out mergers and acquisitions, and (iii) gain market share from competitors.

This paper centers on using growth opportunities where CSPs can leverage their connectivity:

**A. Shift your resources to your best growth opportunity.**

- mobile internet: these are still early days of market development.
- meet the business challenge in saturated markets.
- monitor the capacity and stay ahead of rapid growth.
- create a new market – enhanced customer experience.

**B. Invest in underserved markets.**

- subscriber data management and connectivity profiling.
- customer-centric business needs a unified view of customer data.
- end-user insights are the key to optimizing business performance.
- enabling a unified view of subscriber data.

The clock for the horizons will differ from market to market. This means that you will need to form a view on the right timing of horizons for your organization and markets before you start to set your growth direction.

**C. Step out into white spaces to build a new business.**

- targeted advertising.
- be in pole position when business recovers.
- targeted advertising is a growth opportunity.
- what is happening in advertising?
- what makes mobile advertising unique?

Time horizon	Near term	Medium term	Long term
The growth map	Extend and defend core business	Build emerging business	Create viable options
Use growing markets	Shift your resources to your best growth opportunities	Invest in markets you don't currently serve	Step out into white space to build new business
Carry out mergers and acquisitions	Pursue fill-in acquisitions and divest slow-growth businesses	Bolt on acquisitions or mergers to consolidate or diversify	Diversify into growth areas through small acquisitions
Gain market share from competitors	Drive commercial and operational excellence	Refresh your proposition and/or delivery model	Reinvent or disrupt your business model

Inset 1 the growth map<sup>3</sup>. Methods of growth (vertical) mapped on a time horizon – short / medium / long term (horizontal).

<sup>3</sup> Mehrdad Baghai, *The Alchemy of Growth: Practical Insights for Building the Enduring Enterprise* (Reading, Mass: Perseus Books, 1999)  
 Patrick Viguerie, *The Granularity of Growth: How to Identify the Sources of Growth and Drive Enduring Company Performance* (Hoboken, NJ: John Wiley & Sons, 2008)

### 3. Shifting your resources to your best growth opportunity

#### Mobile Internet: still early days of market development

Looking at cellular telephony in Western Europe and North America – we have saturated markets.

Now, let's look at the mobile internet evolution: these are still early days of market development.

We are seeing acceleration in mobile data services, with some geographies showing from 400% to 800% year-over-year increase in traffic.

The global Smartphone market reached 150 million units in 2008, and will reach a five-year total of over 800 million units between 2007 and 2011.

Wireline broadband subscribers in Western Europe and North America reached 193 million in 2008, and cellular mobile broadband subscribers with HSPA are just getting started with 20 million (not including WCDMA or WiMAX). Through 2013, cellular mobile broadband subscribers will continue closing the gap with broadband subscribers.

#### Networks

High Speed Packet Access is operational with a large coverage. In France, for example, 95% of population is expected to be covered by HSPA by end of 2009.

#### Devices

Dongles, net books, Smartphone, touch screen phones are selling.

#### Charging

User-centric flat rate billing with fair usage restrictions secures consumers and CSPs.

#### Applications

Penetration of fixed broadband and adoption rates of internet applications are very high with instant messaging and email, search, news, user generated content, social networks, eAdvertising, e-commerce, GoogleMaps, and YouTube.

Inset 2 the conditions for mobile internet take-off are in place

Mobile data revenues for North America and Western Europe will double from €62 billion in 2008 to €113 billion in 2013, representing one-third of mobile CSPs' revenues.

Nevertheless, to profit from mobile data, especially with the introduction of flat data tariffs, operators have to reduce network costs. A low cost site solution comprises the following building blocks:

- HSPA
- Internet-HSPA
- Hybrid Backhaul
- Mobile Broadband Core
- Services

Mobile internet is already here, and there is a major prospect for the evolution of bitrates/capacity/cost per Mbit: Long-Term Evolution (LTE).

Nokia Siemens Networks has various solutions to address these challenges. The Profitable Mobile Broadband Solution, for instance, helps CSP's to reduce OPEX and CAPEX of the network operation. It also increases the end-user experience with higher data rates and less latency.

### Meet the business challenge in saturated markets

The transition from a voice minutes-of-use model to internet protocol based services has to be carefully managed due to network constraints and potential impacts on ARPU and margins. The voice revenue must be protected while it lasts.

The services environment is moving fast. Consumers appreciate carrier grade voice, but with services, novelty comes first. Fast trialing ensures the right combination of user experience and features. Since new services typically are not essential, consumers do not initially expect the reliability of voice calls.

#### Shift happens

In the United Kingdom, one third of users have chosen to replace their fixed broadband with wireless broadband.

In the age group of 16-24 years old, half have switched from fixed to wireless broadband.

Inset 3 Source: Ofcom

### Monitor the capacity and stay ahead of rapid growth

When network utilization is monitored from the base station to the gateway in line with lead times for capacity upgrades, it is possible to respond quickly to fast mobile internet growth. A fast response ensures that the network throughput stays ahead of demand thus maintaining the user experience. Key enablers are intelligent gateways that minimize latency and optimize the flow and compression of data. As an example, a Nokia Siemens Networks customized solution to improve network visibility is the Reporting Suites solution.

The Nokia Siemens Networks Reporting Suites solution creates ready made reports for a given network element, or group of network elements. It also allows visibility of faults or network quality & faster troubleshooting.

The Report Suites solution brings the following business benefits:

- Advanced fault resolution in operations division
- Reduced call volume to customer care
- Pre-defined KPIs for all technologies (RAN, BSS, PS CORE, & CS CORE)
- Always updated with the latest Key Performance Indicators (KPIs)
- Reduction in costs and improved network quality

With HSPA, mobile network utilization averages 20% in Europe, reaching 50-60% in major cities (London, Paris, etc.), and higher rates in Stockholm and Helsinki.

### **Create a new market – enhanced customer experience**

Commercial HSPA-based services took off with dongles on laptops. When more internet services can be dialed like a phone number, traffic will surge. Touch screen phones are leading the way.

Widgets, contextual information, convenient billing, and social networking are other building blocks.

People are becoming aware of services beyond voice such as converting photos into a video clip with music<sup>4</sup> or providing piece of mind with phone backups. Many begin to see their personal benefit in being connected.

Consumers still need a number of passwords and identities when enjoying a variety of services, but CSPs can provide single sign-on – one password and one identity – across a choice of services and applications with increased security and convenience.

For users accessing enterprise applications through virtual private network (VPN) services, unified communications, Web conferencing, and working with shared documents in a secure environment are top of the agenda.

### **Which solutions help CSPs benefit from the mobile internet opportunity?**

For cost-efficient capacity, CSPs will need to dimension their networks ahead of any traffic surge by closely monitoring traffic and choosing between different backhaul solutions adapted to their sites and network topology. Here, for example, carrier ethernet transport implemented with switches is proving a cost-efficient approach.

For enhanced user experience, the ability to control quality of service and maintain low latency combined with an end-to-end view of the communication path are the network building blocks. Features that control the air interface to enhance battery life of handsets, HSPA and Long-Term Evolution, as well as intelligent gateways, are enablers along the communication path.

As an example, a Nokia Siemens Networks customized solution for HLR, the Nokia Siemens Networks @ Work – HLR solution, brought T-Mobile, Europe, the following business benefits:

- Reduction in Network Complexity
- Substantial Opex savings gained from a single Directory Server and 3 HLR Sites providing three-way redundancy
- Open Architecture created for access to the network by 3rd Party vendors

<sup>4</sup> <http://animoto.com>

## 4. Invest in underserved markets: subscriber data management and connectivity profiling

Customer-centric businesses need a unified view of customer data

In today's saturated markets, CSPs work in a changing business ecosystem in which a more customer focused approach will help to improve profitability.

A unified view of end-user insights enables CSPs to build stronger relationships with their customers, increasing customer spending and loyalty and thus boosting the customer lifetime value.

Even so, 87% of CSPs do not have a unified view of all their customer data. This makes it difficult to run a more customer-centric business efficiently.

### **End-user insights are the key to optimizing business performance**

Detailed end-user intelligence enables a CSP to prioritize and optimize its operations and accurately manage end-user interactions at every point of contact. Customer-centric operations are built on an understanding of how each task affects customer satisfaction (and thus churn), which in turn impacts on customer lifetime value and operational efficiency.

Customer-centricity enables CSPs to grow their existing business and to win new sources of revenue. CSPs could use their unique customer insight to become intelligence brokers for their partners in the new value networks. For example, end-user insights can be used to tightly target advertising campaigns and to personalize services.

### **Enabling a unified view of subscriber data**

Which solutions enable a unified view of subscriber data and connectivity profiling?

Some vendors have proposed a federated approach to data silo issues. This approach has its merits. Weaknesses could arise in terms of scalability, response times, and increased vulnerabilities to point failures and need to be considered case by case.


Other vendors are proposing stovepipe software-based solutions based on relational database technology that are not ideally suited to the performance-critical and distributed environments of today's networks and services.

Nokia Siemens Networks favors the One-NDS (Network Directory Server) architecture for subscriber data management because it optimizes the cost of multiple applications and, at the same time, prepares a network for new business with the subscriber intelligence framework.

An actual implementation would take three steps:

- **Step one** – unifying network and service data would lead to a simplified data layer serving your first application.
- **Step two** – opening profile data through standard interfaces for universal access would eliminate a multiplicity of costs – one repository for multiple applications.
- **Step three** – innovating around a single subscriber-centric network with connectivity profiling.

A subscriber intelligence framework does exactly this, by giving you a real-time analysis and a recent history allowing you to become more intimate with subscriber behavior.



## 5. Step out into white spaces to build a new business

Be in pole position when business recovers

Are you considering what the world will be like when we get to recovery? Are you prepared to step out into white space to build new business that realizes additional value from your connectivity? Have you considered monetizing your inventory through advertising?<sup>5</sup> This may be a future business opportunity you don't want to miss.

### Targeted advertising is a growth opportunity

Since 2007, the number of mobile internet users has quickly increased in North America and Western Europe. This has led a range of players to evaluate the mobile internet channel for its advertising potential:

- advertisers see the potential to deliver well-timed, targeted campaigns anywhere in the world
- advertising agencies see the potential benefits of reaching millions of customers on their trusted mobile devices
- mobile CSPs realize their unique position in reaching consumers, and are considering revenue opportunities from advertising

### What is happening in advertising?

- Vodafone continues to carefully develop its media business from third-party advertising on their networks
- Web-based communities leaders promote their advertising channels – Facebook launched Tripartite Ad System; MySpace expanded a program for targeted ads
- IBM's white paper forecasts "The end of advertising as we know it!"
- Operator Blyk's advertising model started in September 2007 and reached its 100k subscriber target six months ahead of its initial plan
- AdMob launched an iPhone-specific "advertising marketplace" in July 2008; and unveiled an ad network that helps developers monetize their applications on the Android platform in January 2009

### What makes mobile advertising unique?

The observed response rates of consumers to personalized mobile advertising exceed the expectations set by other media. Consumers are receptive to personalized messages on a personal device. The response rates, tracking options and potential reach make this a very promising channel for the advertising business.

### Would a CSP's complete subscriber data need to become accessible for advertisers?

Solutions typically include an operator point of control. At this point, the data provided by the CSPs are anonymized in such a way that advertisers can reach their target audience but do not gain access to the actual subscriber data. Such a function is easily implemented in stand-alone equipment. The One-NDS architecture deployed by Nokia Siemens Networks would include such a function as well.

For now, actual revenues from advertising are small, especially when compared with voice and SMS revenue. But for mobile internet, it's still early days of market development. What if the players who get the largest slice of the advertising pie turn out the biggest winners in the long term?

<sup>5</sup> The inventory is the total number of impressions (ad views) which can be generated across various channels.

## 6. Optimizing, leveraging and monetizing your connectivity assets are pragmatic steps towards new growth opportunities in saturated markets

Survival in an economic downturn is critical, but 80% of long term success has to do with our choices about how and where to compete – the grow-or-go dynamics are an unforgiving environment.

Growth can be achieved with three methods: (i) using growth opportunities, (ii) carrying out mergers and acquisitions, and (iii) gaining market share from competitors. The paper focused on using growth opportunities.

CSPs have three strategies to use growth opportunities:

1. Shift your resources to your best growth opportunity: mobile internet. Monetizing the mobile internet is the business challenge in saturated markets.
2. Invest in underserved markets: subscriber data management and connectivity profiling.

Customer centric business needs a unified view of customer data and end-user insights are the key to optimizing business performance.

3. Step out into white spaces to build new business: Targeted advertising. This is a growth opportunity. The response rates, tracking options and potential reach make this a very promising channel for the advertising business.

With the current global recession, optimizing, leveraging and monetizing your connectivity assets are pragmatic steps towards growth opportunities in saturated voice markets.

CSPs that invest in growth opportunities will be in pole position when business recovers.

## 9. Glossary

CSP	Communications Service Provider
HSPA	High Speed Packet Access
WCDMA	Wideband Code Division Multiple Access
LTE	Long-Term Evolution
ARPU	Average Revenue per Subscriber
KPI	Key Performance Indicators
RAN	Radio Access Network
BSS	Base Station Subsystem
OPEX	Operational expenditure
CAPEX	Capital expenditure
NDS	Network directory server
VPN	Virtual Private Network

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