



Five ways guide

LTE

Complete LTE portfolio

LTE is a highly efficient all-IP technology that offers a strong business case for both existing CSPs and new entrants. For most 3GPP CSPs, who already serve more than 80% of the global subscriber base, LTE is a natural evolutionary step. For those CDMA and TD-SCDMA CSPs migrating to 3GPP R8, Nokia Siemens Networks offers a complete solution portfolio optimized for R8 that fully supports interoperability.

Our product and service portfolio is a comprehensive end-to-end offering for LTE/SAE networks. Our scope includes radio, core and transport networks, subscription management and charging systems, network management, service management and a full range of services from network design and implementation to network optimization and service assurance.

For CSPs, this means that we ensure a smooth migration into existing legacy systems, seamless integration to provisioning and billing systems, and optimized interworking between 3G and LTE systems. So, in short we are committed to helping our customers maximize their current investments while introducing LTE.

Simple truth:

70%
less hardware



Five ways in which we are helping to make profitable LTE a reality

1. Ensuring network and technology readiness

LTE will create an enhanced broadband market and has the potential to transform how users receive, consume and interact with information and content distributed over mobile networks.

Nokia Siemens Networks has been at the forefront of LTE development. As well as being the first supplier in the world to demonstrate LTE with data speeds of up to 160 Mbs, we were first to complete a handover between LTE and HSPA. Our proven I-HSPA solution gives us a head start in the technology evolution. Based on 3GPP standards and using the same flat network architecture as LTE, I-HSPA enables CSPs to provide profitable pricing of mobile broadband services ahead of their rivals.

Furthermore, we are the only vendor to be shipping LTE-ready hardware. The multimode Flexi BTS platform is fully LTE-compatible, needing just a software upgrade to support LTE. With the same hardware for both HSPA and LTE, any HSPA investment made now will be forwards-compatible, regardless of when LTE is launched locally.

We also have a strong record in IP network innovation and have developed our entire portfolio, from the core network to operational support systems and services to align with the requirements of LTE.

Our involvement extends into standardization and testing. As well as helping to drive LTE standards, we have invested in performance and interoperability testing. Our work with the Heinrich-Hertz Institute in Berlin has measured LTE radio performance under real network situations, while our worldwide LTE labs are helping CSPs with early deployments.

Simple truth:

55%
energy savings

Nokia Siemens Networks is establishing a center of competence in Dallas dedicated to developing the next generation of broadband wireless technology. The formation of this LTE center of competence, which will employ approximately 500 people, demonstrates our aim to locate key resources in close proximity to those CSPs leading the roll-out of next generation technologies.

2. Accelerating a broad ecosystem

LTE will require a broad ecosystem, from chipsets, to networks, to handsets and beyond, to achieve its full potential.

To ensure that the LTE ecosystem is in place, Nokia Siemens Networks is working hard to ensure interoperability and support LTE launches. For example, we have already demonstrated interoperability between the Nokia Siemens Networks' Flexi Base Station and Qualcomm's upcoming LTE terminal platform. This demo, which was presented in February 2009, showcased early end-to-end interoperability between two independently developed solutions showing specification-compliant LTE technology.

It represented an important step towards the smooth commercialization of LTE technology. It also reflects our commitment to enabling an acceleration of the industry ecosystem and ensuring the fastest path to commercial deployment.

A broad LTE ecosystem will boost the customer experience with faster response times and improved throughput, helping to enable the mobile broadband big bang and providing immediate access to applications like browsing, email, video sharing, music downloads and many more.

Simple truth:

25%
lower site costs

3. Taking full advantage of the intelligence in the network

CSPs that are truly customer focused do business on their customers' terms. The result is greater customer satisfaction, which, in turn, helps raise customer lifetime value. By making it possible to fully utilize the intelligence in the network, LTE will give CSPs deeper insight into their customers' behavior, helping them build their business around customer needs, meet customer expectations and stand out from the competition.

By helping CSPs know their customers better, LTE is a key enabler of customer experience management and business success. With more personalized services and stronger, more lasting customer relationships, LTE helps drive revenue streams that reflect greater customer loyalty.

LTE will also help CSPs eliminate traditional silos in their organization, between marketing and operations, for example, and further improve the customer experience. Service creation and provisioning, as well as billing and charging, will be aligned and streamlined down to the individual level. For functions like billing, CSPs will be able to combine prepaid and post-paid charging systems, as well as voice and data billing mechanisms, to give customers a choice of payment methods for different services.

Nokia Siemens Networks offers solutions such as unified charging and billing and subscriber data management to give CSPs the information they need to become truly customer centric in their business.

Our unique NetAct™ single management system covers all technologies and network elements (Radio, Core, GSM, WCDMA, LTE). It supports multivendor integration and multi-technology configurations for all O&M applications related to element, network and service management.

NetAct™ also makes extensive use of the Self Organizing Network (SON) approach. By combining NetAct™ with LTE's self-configuring and self-optimizing network technologies, CSPs can reduce installation and management costs significantly.

4. Capitalizing on the economics of next generation connectivity

Of course, evolving to a new technology demands careful analysis of the investment, especially with regard to the timing of the launch. To help CSPs find the right solution, Nokia Siemens Networks has created an advanced LTE business case modeling tool, which supports an effective decision making process.

CSPs can use LTE business case modeling to define various scenarios and cross-check their own calculations. For example, in Europe and other parts of the world, several regulators are opening up spectrum options. As a result, CSPs are working out how much they can spend on spectrum. LTE business case modeling can help them allocate their budget to achieve the best possible return.

Our LTE business case modeling tool helps CSPs evaluate their options and predict the impact of their decisions. It shows CSPs how to introduce this new technology successfully at the optimal moment to maximize the business value of their investments.



5. Understanding the consumer experience, as well as the social, economic and environmental impact

The super connected world that LTE will enable will change lifestyles and the way people access and use data. At the same time, greater personalization of services will be possible, enabling market segmentation down to the level of individual subscribers. The impact will cut across all areas of society.

Take the example of Facebook, which will no longer be a destination site. Instead, social networking capabilities will become a standard device function for managing social media contacts. With the expansion of OpenID and Authentication, people will only have to enter their details once.

Communications so far has been mostly about people speaking to people. The future will be about all kind of objects speaking to each other through the Internet. Every coffee maker, toaster, car engine, goods pallet and pot plant could be equipped with a low cost LTE chip that will connect it to an ever-growing network. And even according to conservative forecasts, there will be billions and even trillions of these connections, each generating a tiny amount of data.

So the LTE business case will take on a whole new dimension, and in fact, has been described as part of the 'largest organic growth opportunity in the history of business'. How people use communications will also change, and in this area, as well, we provide solutions to help CSPs gain a deeper insight into their customers' behavior and build their business around customer needs - from the service portfolio, network and service quality, to charging and customer service.

As LTE rolls out, the advantages for CSPs will be clear, helping them differentiate from competitors, create real customer satisfaction, boost customer loyalty and build their brand performance.

Simple truth:

**LTE boosts
the service
experience**

Nokia Siemens Networks Corporation
P.O. Box 1
FI-02022 NOKIA SIEMENS NETWORKS
Finland

Visiting address:
Karaportti 3, ESPOO, Finland

Switchboard +358 71 400 4000 (Finland)
Switchboard +49 89 5159 01 (Germany)



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