

Nokia Siemens Networks Industry Themes IP-Centric Convergence



IP-centric convergence, one of the key trends in the communications industry today, is making communications richer and easier. It enables the unification of fixed and mobile networks, end-user services and applications, devices and terminals, and digital content and multimedia. IP-centric convergence is bringing mobility to the Internet and offers the promise of any service, any network, any device, anytime.

The findings from our market insights research suggest that end-users are looking for personalized, cost-effective converged services that can be provided in an integrated, easy-to-use package. Service providers who can satisfy this need will capitalize on the massive global demand that IP-centric convergence is creating.

Nokia Siemens Networks aims to help operators and service providers bring mobility, simplicity and personalization to end users, regardless of the device, services or underlying network. Based on our combined strengths, we can offer service providers the broadest portfolio of cost-saving, leading-edge solutions and services that will capture the opportunities of convergence.

1.1 Uncovering opportunity

Drastic changes are taking place in the global communications industry. Service revenues are being threatened by increasing competition, price erosion and the emergence of new technologies such as Voice over IP (VoIP). The industry is becoming more global and horizontal. There is a sense of urgency among both fixed and mobile service providers to accelerate the development of new services and new revenue streams not only to remain competitive but to prevent business decline.

In a recent survey¹, 80% of telecom executives now believe that voice call revenues will drastically decline and will no longer be the main source of carrier revenues within six years. A further 65% believe that service bundling is more critical now. In an earlier study² over 80% of global telecom executives agreed it will be essential to embrace convergence as a source of long-term revenue growth within the next three years.

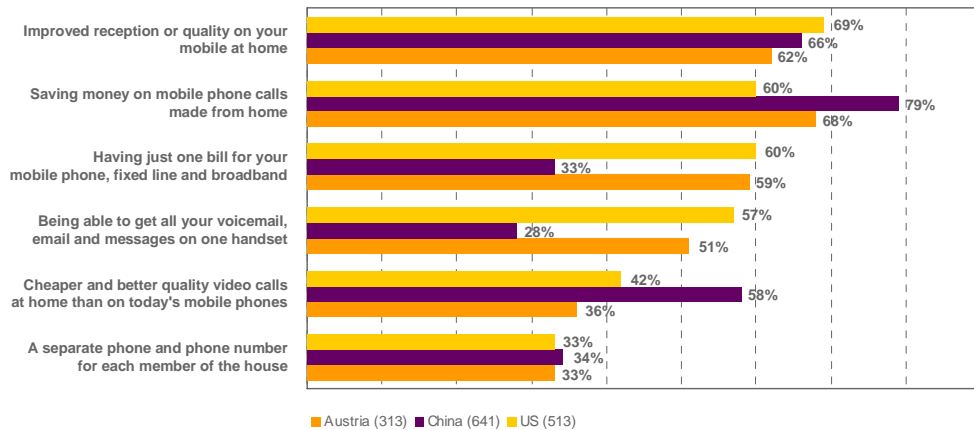
In today's market, end-users want to be delighted and entertained by new products, services and devices. Even so, they are also looking for significant cost savings, such as those offered by VoIP calls and multiple service bundles. The figures on the following page show the results from end-user market research conducted to understand end user market drivers:

1 Global Communications Industry Survey - Economist Intelligence Unit (EIU) and Oracle, 2007

2 Global Telecom Study on Convergence - Economist Intelligence Unit (EIU) and IBM, 2005

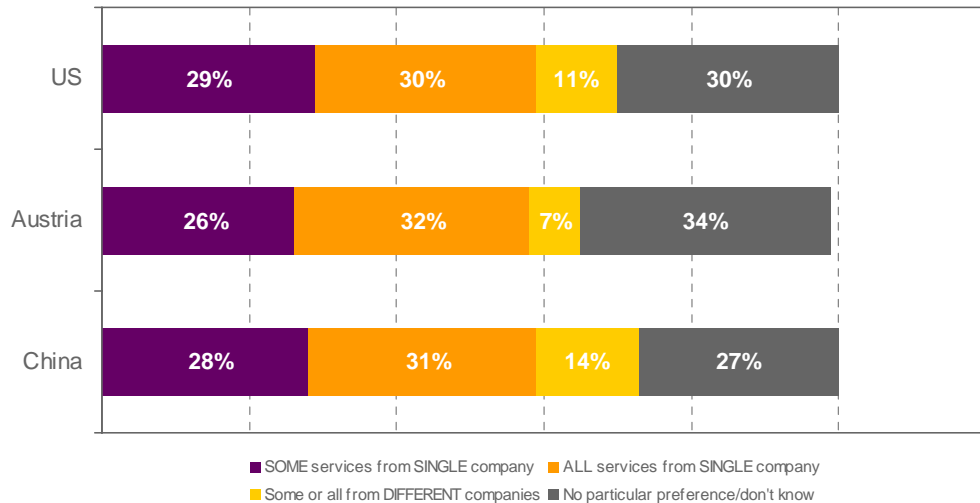
Figure 1: End-user drivers for fixed-mobile convergence

How much would each of the above encourage you to take up this service?
(all those very/somewhat likely to take up fixed mobile convergence)



(Source: "Future of Voice Traffic" Nokia/Gfk NOP Technology Future, 2006)

Figure 2: End-user attitudes towards service bundling



(Source: "Future of Voice Traffic" Nokia/Gfk NOP Technology Future, 2006)

The emergence of broadband mobile internet access and the growth of Internet multimedia, together with user generated content and social networking communities, whether virtual or real, are the trends influencing new service development. End-users are looking for a seamless communications experience, where they can access their services flexibly and economically without the constraint, inconvenience or expense of separate services and products, or technologies and devices. They want to

be able to personalize their services, and to access them wherever and whenever they want.

To realize all these opportunities requires the capability to provide convergence solutions. Convergence offers service providers the potential for new revenue streams from converged services, as well as substantial capital and operational cost savings by unifying and optimizing isolated fixed and mobile networks.

1.2 Unlocking opportunity

IP-centric convergence is the foundation for the future of the communications industry. It is much more than the next consumer craze.

And the future is happening now. The new talk is of 'triple' and 'quadruple play' services, where combinations of fixed voice, fixed data, TV or video, and mobile services are bundled together. New business opportunities are opening up for companies regardless of whether they have a fixed, mobile, cable or internet background. Examples of new convergent services such as Unlicensed Mobile Access (UMA) and mobile VoIP have been launched in several markets.

For operators and service providers, a thorough analysis and preparation of a convergence strategy is crucial. This could mean developing new business models, creating partnerships with companies that have specific competencies, combining existing business units into new organizational structures, or even creating a mobile or fixed VNO (virtual network operator). Selecting the right convergence strategy to maximize the market opportunities, while optimizing network costs, will be the key to success.

The benefits of IP convergence apply not just to consumers but also to business users. The primary drivers for the enterprise are to cut costs while enhancing productivity and reachability. The opportunity in the enterprise market will be greatest for operators who embrace the IP convergence model. Many service providers are positioning themselves to business customers by offering a "one-stop shop" for fixed and mobile business voice, broadband Internet access, and new services such as VoIP, wireless IP PBX/IP Centrex or Unified IP Messaging (voicemail, email, push email, SMS, IM, etc). Service providers will further be able to expand their services to the enterprise by offering outsourcing, consulting and integration services, as well as hosting services.

1.3 Maximizing opportunity

Opportunities for service providers in the IP convergence market are multi-faceted and substantial³ But to take full advantage of them, these service

³ Converged market opportunity of \$42.6bn by 2010 - Informa Dec 2006

providers need to find partners who not only understand how to develop and implement converged solutions, but who also have broad experience in fixed and mobile IP networks.

Nokia Siemens Networks has the global scale and size to play an industry leading role in IP-centric convergence by developing innovative, cost-efficient products and services. We aim to drive IP convergence by working with network operators and service providers to bring mobility, simplicity, and personalization to consumers and business users alike, independent of the access network.

We provide complete solutions that encompass networks, devices, applications, network services and system integration for network operators, whether fixed, mobile, cable, ISPs or VNOs. Our common unified platforms embrace current technologies, as well as emerging technologies such as digital broadcasting. In addition, we have an extensive portfolio of professional services with skills and experience in network design, delivery, deployment, integration, and network optimization and management, including hosting.

Nokia Siemens Networks also has one of the world's best R&D teams, who will advance the development of product platforms and services for next-generation fixed and mobile networks.

In summary, we aim to offer service providers the optimal solution for their specific needs in convergence. We will help them to optimize CAPEX and OPEX, and maximize revenue, in order to ensure the highest Total Value of Ownership (TVO) and enable them to stay at the forefront of their market.

For more information about the unique value that Nokia Siemens Networks brings to operators:

- Uniting communities
- Business transformation
- New revenues
- End-to-end expertise
- Operational efficiency
- New growth markets
- IP-centric convergence
- Environment