



Taking fixed broadband to the next level

The growth of broadband is already one of the communications industry's biggest success stories, and people are ready and willing to do more and more over their high-speed Internet connections. According to Bo Ribbing, Director of Strategic Marketing at Ericsson, Deep fiber access solutions are set to provide a step change in broadband access speeds, and enable operators to meet customer demands for higher quality information, communications and entertainment services to be available on a growing range of devices.

Broadband beyond limits

With over a billion users, the Internet is now present in every aspect of our lives – our work, our leisure time and even with our communications towards the government. Broadband access to the Internet represents the biggest communications revolution

since the phone went mobile: the speed of adoption of broadband connections even surpasses that of the mobile phone ¹.

This huge appetite for broadband is driven by the positive impact it has on our social and economic well-being. Broadband is a major contributor to boosting competitiveness, driving economic growth by encouraging new, more localized business start-ups and job opportunities, enabling virtual- and tele-working, reducing unnecessary travel, facilitating distance learning and access to top class education resources, enabling telemedicine and bridging the divide between politicians and the people. Broadband makes people feel more connected to the world around them.

From virtually none in 2000, Ericsson estimates that there are already more than 600 million fixed and mobile broadband subscriptions, and by 2013

there are likely to be almost three billion broadband subscriptions.

We are also connecting more and more devices to each other and to the Internet. According to Ericsson Consumer Lab research, every home in the Western world has on average 15 electronic devices and around half of the homes are already connected to the Internet in some way. We are moving from a world that has just one broadband subscription per home, to one with an additional mobile broadband subscription for each person, and ultimately to one with a broadband connection for every digital device or machine.

Roadmap to higher capacity, speed and quality

While mobile broadband grows in popularity, the drive towards higher speeds, capacity and quality in fixed access networks to homes and business continues.

The growth in multimedia traffic – for TV services and user-generated content, for example – is driving demand for higher network capacity, reliability and quality, both in the downlink and the uplink. The moves to interactive and personalized High Definition TV (HDTV) services will require high throughput, deep fiber access networks. Even though not all devices will require as much bandwidth as gaming devices or HDTV sets, the total capacity needed is expected to increase tremendously.

The highest bandwidth and capacity demands will come from homes and offices, and here operators are increasingly turning to deep fiber access solutions involving Point-to-Point (P2P) Ethernet over fiber or Category 5 cable, and Point-to-Multipoint (PMP) Gigabit Passive Optical Network (GPON), with an option of using VDSL2 in the last drop. P2P fiber and GPON-based PMP are complementary approaches to deep fiber access, and may well be deployed in the same network to provide a flexible access solution.

Ericsson Full Service Broadband – enabling the broadband connected lifestyle

The delivery of broadband services for people at home and in the workplace is creating new revenue streams for network and service providers. Profitable delivery of such services requires the deployment of networks capable of scaling progressively while providing an attractive total cost of ownership over their lifetime.

The goal is to deliver access to interactive, personalized services on any device, from mobile phones, portable media players and games consoles, through desktop and laptop computers, to wide-screen HDTV sets.

At the forefront of meeting this requirement is Ericsson's Full Service Broadband architecture – a unique collection of technology components and associated services designed to deliver ubiquitous broadband connectivity and compelling experiences for people and enterprises. Full Service Broadband architecture provides critical components for scalable IP networks covering device ecosystems, broadband access, transport, control, applications, charging, services and operations management.

Operators that deploy deep-fiber access will be able to expand their offering of services that require high-speed broadband and thereby increase their competitiveness. What is more, they will reduce operating expenses by up to 60% compared to the cost of operating copper networks – leading to a significant reduction in the overall cost-per-bit.

Deep fiber access provides operators with a simplified, flexible network with maximum reliability that delivers predictable, secure and guaranteed Quality of Service to customers. The ability of fiber to deliver virtually unlimited capacity and the adherence to open standards and industry-standard interfaces means deep fiber access solutions are future-proof. Modular design supports flexible business models and network design, as well as the scalability for future expansion.

As a cornerstone of Ericsson's Full Service Broadband architecture, deep fiber access is part of a complete solution that will enable fixed operators to move to the next level of broadband service provisioning and the delivery of winning customer experiences.



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¹ Compounded average growth from start of deployment is bigger for broadband than for the most successful mobile service of all, GSM. Source: Ericsson calculations based on EMC data.