



Into the fibre-optic future with "fibre suisse"

Swisscom is building the fibre-optic broadband network of the future. Now that fibre-optic cables have been laid to neighbourhoods (fibre to the node) and to large companies (fibre to the office), residential customers and SMEs are next in line: work has already started in Zurich, Basel and Geneva, with the aim of connecting 100,000 households with fibre-optic cables by the end of 2009. The plan is then to further extend the network in the course of next year to include residential premises in the cities of St. Gallen, Berne, Fribourg and Lausanne. The first offerings for residential customers and SMEs will be launched in the first half of 2009. Over the next six years Swisscom is planning to invest some CHF 8 billion in the Swiss telecommunications and IT infrastructure, with 35% of this sum earmarked for fibre-optic expansion.

Swisscom can draw on around 150 years of experience in building telecommunications networks. Thanks to this know-how and to the competitive environment with mobile and cable network providers, Switzerland enjoys a world-class telecommunications infrastructure. Since October 2008, Swisscom has been expanding its fibre-optic network to cover residential customers and SMEs, with a view to retaining this leading position in broadband communications in the future. The existing infrastructure will support this expansion, since thanks to investments in the backbone fibre-optic network and the extension of fibre-optic cabling for VDSL distribution to residential neighbourhoods, Swisscom already has a dense high-speed network.

12,500 business premises already connected

For more than ten years now, Swisscom has been providing large companies with fibre-optic networking connectivity. Around one third of corporate customers already use broadband services over the high-speed network, and a total of 12,500 business premises in Switzerland are directly connected via optical fibres provided by Swisscom. Moreover, interest in fibre-optic networks is growing apace: within the space of one year, Swisscom has seen the number of fibre-optic customers increase by 40 per cent.

Demand for new business applications such as Voice over IP (VoIP), Unified Communications and video conferencing is driving the need for increasingly higher network capacities, prompting more and more large enterprises to switch from copper to the more efficient fibre-optic network.

Customers benefit from competition between different networks

Back at the end of July, Swisscom invited potential cooperation partners from the telecommunications, cable and utilities industries to work with it on building the fibre-optic network, with the aim of implementing the network more quickly and cost-effectively in conjunction with several partners. Moreover, this collaboration will generate competition among different types of networks, boosting investment and innovation and maximising the benefits for customers and home owners.

To enable potential cooperation partners to expand their own fibre-optic infrastructure after the construction work has started, Swisscom will be laying several fibres per household in all areas. One fibre will be used by Swisscom, while the others will be made available to the cooperation partners. The multi-fibre model will prevent the creation of a new network monopoly in Switzerland and also meet



competitors' requirements for full access to the local loop (copper pairs) as stipulated by the Telecommunications Act.

Fibre-optic network technology as the driver for competition

In Switzerland, telecommunications services are already offered over a variety of networks, not only by Swisscom but also by other providers such as cable network operators, electrical utilities and railway companies. Network operators can use a range of different technologies for their own infrastructure, and use this as a platform on which to build up and offer their services. The services and network quality they will subsequently be able to offer depends heavily on the choice of technology. When it comes to service, quality and technological innovation, network operators can only differentiate themselves effectively on the market if they are able to monitor and manage the entire network, from the exchange to the end customer device.

While laying several fibres per household entails marginally higher investments, it guarantees competition at the technology and service levels. Limiting fibres to one per household would be impractical, since this would endanger the dynamic nature of the market and the technological innovativeness of the telecommunications industry over the next 30 to 50 years.

Cooperation model for all requirements

Swisscom offers partners interested in collaborating on the construction and operation of the fibre-optic network four different cooperation models, in the interests of preventing duplication, saving costs and accelerating the introduction of broadband networks in Switzerland.

- **Construction partnership:** This cooperation model is aimed in particular at partners with their own ducts, such as electrical utilities or cable network providers. One of the partners takes on responsibility for building the fibre-optic network in a defined region – for example a specific district or an entire city. Several fibres are laid, and when the network is completed each of the other cooperation partners is assigned one fibre. If all the partners network regions which are the same size and are to be shared, no compensatory payment is required.
- **Investment partnership:** This form of cooperation is of interest to partners without their own cable ducts. Network expansion is jointly financed by all the partners. One partner builds the entire network and grants the investor usage rights to the fibres laid.
- **Rental of individual fibres:** Individual fibres are rented by partners who do not wish to invest in network expansion but want to decide themselves on the preferred technical level for controlling the fibre-optic network.
- **Leasing of transmission services:** As with DSL broadband technology, which has long been established on the market, Swisscom also provides reseller offerings for Internet service providers who do not wish to invest in their own infrastructure. These providers can use Swisscom's optical fibres and higher-level network technology.

Launch of reseller offerings in March 2009



Swisscom presented its reseller offerings to all Internet service providers at the beginning of November. In the initial phase these non-discriminatory and fair offerings will cover bandwidths of 30 to 50 Mbps for download (receiving data) and up to 10 Mbps for upload (sending data).

During the pilot phase, which starts at the beginning of March and will become a commercial service in autumn 2009, the offerings will focus on the areas in Zurich, Basel and Geneva which are already equipped with fibre-optic cables. As part of the agreed collaboration, the partners will check the technical implementation and market acceptance of the individual offerings. Internet service providers, including VTX, green, netstream and init7, are free to design their own end customer and reseller offerings.

Residential customer offerings from 2009

Expansion of the fibre-optic network will create the infrastructure required for future products and services aimed at residential customers and SMEs. Such offerings for residential customers and SMEs are scheduled for rollout in the first half of 2009.

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