

SUBONET[®] is a local loop access optical network to deliver broadband services and full interactivity to accommodate current and future services. It integrates the broadband CATV services, high speed data communication, and voice over one single, flexible, and open system.

SUBONET[®] ensures full compatibility with existing subscriber equipment and cable operator architecture.

The Company:

EMC SA was founded in 1997 following a management buy out from the regional CATV Company "COELCO". EMC has immediately expanded its efforts developing dedicated fibre products which have been successfully deployed by large and small CATV operators.

By providing outstanding customer-driven solutions EMC has rapidly enlarged its technical expertise over a wide range of opto-electronics products.

With continuing growth of the demand for internet access, it became evident to EMC's engineers that the main thrust of modernization will be focused on data transmission services.

The solid experience in CATV networks combined with an outstanding expertise in fibre optic technology have enabled the Company, after several years of product development and testing, to launch *SUBONET[®]*, a practical fibre optic solution for the last mile.

The Product:

EMC patented technology eliminates the last mile bottle neck, integrating the broadband CATV services, high speed data communications, and voice over a single, flexible and open system.

SUBONET[®] replaces the coaxial cable with optical fibres which extend to the subscriber outlets.

An Optical Node unit provides downstream signals to a group of subscribers and transmits back to the HE the upstream signals from the cable modem in a similar manner to an HFC network.

Optical/electrical and electrical/optical conversions take place at the subscriber outlet.

Moving to digital, *SUBONET[®]* includes a full Gigabit of bandwidth opening up new opportunities for new services as demand increases.

SUBONET[®] is fully compatible with existing services available at subscriber premises. Architectures at the HE remain essentially unchanged.

The unlimited bandwidth of fibre optic provides the CATV operator a logical, smooth transition toward full multimedia operation.

The Marketplace:

In recent years cable operators have made significant investments toward extending the fibre in the backbone infrastructure, installing return paths and providing larger bandwidth. Today the local access market is a primary focus of CATV and telecommunications service-providers aiming to provide a variety of broadband services to the subscribers.

SUBONET[®] meets today's fundamental requirements and provides high speed data to each subscriber scalable to a bandwidth up to 1Gb/s

Improved performance and network reliability over traditional coaxial distribution make it more suitable for digital transmission in both downstream and upstream. As the demand for internet access increases, data security and network reliability will be significant parameters to which the network designer must pay attention.

Replacing the coax distribution to subscriber premise minimizes the most unreliable and maintenance – intensive portion of the HFC network.

SUBONET[®] permits the CATV operators to look beyond the traditional services (television channels) and expand into new opportunities for new services.

FTTH at what cost?

Increased demand for fibre has driven the price down to reasonable levels. Moreover, taking advantage of the availability of mass-produced components and using an advanced cabling system the price of an optical solution compares favorably with coaxial cable.

SUBONET[®] offers to CATV operators, property owners and finally to subscribers an attractive and practical solution for the access network and is a truly future-proof investment.