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Report of the FTTH Council of Europe Annual Conference

Graeme Young

ON THE 7th and 8th of February this year the FTTH Council of Europe met for their annual conference in Barcelona at the Palau de Congressos de Catalunya. The theme of the conference was 'Europe at the Speed of Light'. Over the two days of the conference there was much thought-provoking material emerging from the seminars. I was there as the guest of NEXANS, the French manufacturer of cables.

The FTTH Council of Europe is a non profit-making organisation founded in 2004 with a mission to speed up FTTH deployment through education and promotional activities, a mission to enhance the quality of life. The Council has 70 members drawn from manufacturers, installers, the network construction industry, and from academia. In his welcome address the Council's president, Hartwig Tauber, compared the growth of FTTH in Japan and in Europe, and addressed the challenges encountered by Europe. Japan, for instance, has over seven million users of FTTH and this figure grows by two hundred and eighty thousand every month. XDSL users are migrating to FTTH showing a decline in its use since the second quarter of 2006. However, in Europe there are major projects in France with Free and France Telecom, in Austria in Vienna, and in The Netherlands in Amsterdam. There is

growth in Denmark, Norway and Italy too and a total of three million homes have been passed with eight hundred thousand of them actually connected, a thirty per cent growth rate. FTTH is, therefore, growing slowly in Europe but is showing encouraging progress in some countries. FTTH is the only technology to ensure ample bandwidth that will meet the expected demand of customers. The vast majority of operating companies agree that Fibre-to-the-Home is the end-game for all Telecommunication networks.

Europe has still to tackle the lowest growth rate of the continents deploying FTTH, probably due to a lack of 'collective vision'. There are relatively few deployments by established MSOs and there is a need for an adequate regulatory framework within which they can operate. Meanwhile, Web and ICT innovation is happening in the USA and in Asia. Meanwhile there is a new policy and regulatory framework getting under way, FTTH is being installed by municipalities and utility companies and now some existing networks are beginning to consider FTTH more actively, answering the demand for greater bandwidths by Cable customers both domestic and business.

The record figure of 1,200 delegates attending the Barcelona conference is another encouraging sign, and the FTTH Council of Europe will ensure that all investors in



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networks choose FTTH to deliver a ten-fold increase in connections over the next five years.

The Keynote Session with the slogan '10Gbit/s for Free!' was addressed by Finn Helmer, Chairman of the Board of Giga, Denmark. Bearing in mind that Copper cables have been in use for over 120 years, fibre has been deployed for more than 30 and a 10Gbit/s chipset has been available in quantity for more than ten years, why is the market so focused on old technology? This was the question posed by the speaker. The summit of achievement is a system giving access to unlimited communication possibilities via a dual fibre optical network capable of 10Gbit/s that can carry legacy services plus many new ones. Each phase of the development of such a network would involve Metropolitan Rings – four in all. The first phase would be to establish the Storage Area Network, followed by Phase 2, installing a service to the business community. Phase 3 would be to feed Multi Dwelling Units (Blocks of Flats), where subscriber density would be high and the connection rate hopefully correspondingly high. The final phase would be to supply residential districts of detached housing and small apartment blocks. Although this is expensive the cost is falling year on year and a six-year interval to break-even point is predicted, though Asia has a 1-year break-even point due to the high-density housing and a correspondingly high number of connections.

Nevertheless, though fibre is gaining ground over copper, are we ready to use the higher speed and greater bandwidths? The suggested format for a 10Gbit/s network to the home is a star architecture with at least one pair of fibres to each household executed in single mode fibre. Though it has been suggested that subscribers do not need such high speeds, the provision of a 10Gbit/s network satisfies the need for 'future-proofing' and simplifies the provision of extra services as the demand for them grows. Copper could soon reach 200Mbit/s, the competition from wireless last-mile links may prove considerable, but for the next generation of users higher speeds and 100 per cent quality of service will be their expectation and FTTH is the surest way of meeting their needs

Diverse Rationales

In a conference of this scope one hears all aspects of the subject; social, financial and engineering. In Europe much of the network construction has been commenced for social reasons, the theory being that a municipality that can boast a universal FTTH network can attract more

business with companies putting their offices and factories there – because of the network. In these instances construction has begun at the instigation of the municipality. The network operator, however, will want profit from the enterprise, generated by business users in the daytime and home users at nights and weekends, and aided by a low churn rate and densely populated centres. Engineers will be the enablers who put in the ideal network, set it up, and run it. Open Access to the network featured strongly in the seminars, the spread of websites such as the 'YouTV' one being seen as a welcome sign of the public's growing wish to participate in making programmes. The easy provision of services such as The Video Telephone, Utility Meter Monitoring, Security monitoring, and face-to-face interaction between people is facilitated by the immense bandwidth of Fibre.

Do-It-Yourself installation was an item discussed seriously in some of the sessions. Hitherto this has not been feasible because of the brittle nature of the fibre, but recently fibre possessing a low bending radius has made D-I-Y installation possible, also improving the performance of an operator's in-home installation team. Issues such as connectors and splices remain under scrutiny in the quest for easy self-installation. The set-top box becomes the Home Gateway providing the multi-way interconnection of television receiver, home computer, games console, telephone, mobile telephone, audio equipment and in-car entertainment system either by hard-wired means or by wireless. No-one hazards a guess at the cost of such a versatile object except to say that the price is falling monthly and to quote a figure now is a waste of time since it will be lower by the time one has noted it down. Power-line communication within the home was seen as a useful alternative to wireless and hard-wired home networks, and development continues to render it reliable, safe and capable of handling high bandwidths.

Confidence and Vision

All speakers and many of the delegates expressed supreme confidence in the eventual success of FTTH across the European Community with benefits to industry and commerce, education, training, public services, and the health and well-being of our citizens. This is a broad vision and one to which manufacturers, financiers, municipalities, governments, cable operators and construction companies across the region should look. The future is bright, it's fibre. ●