

REPORT FIBRE TO THE HOME

Fibre deficiency threatens UK's wellbeing

The knowledge economy will struggle to thrive without a last-mile connectivity boost

Bill Pechey

Fibre to the home (FTTH) is one of the hot topics in networking at the moment, but a recent conference in Paris revealed that efforts in the UK to provide fibre-optic connections in the so-called last mile link to the subscriber are dwarfed by those of other nations, and the UK risks falling behind its global competitors in this area.

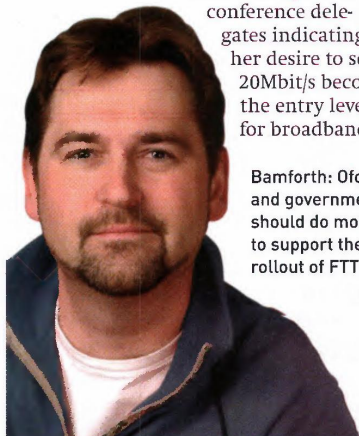
The *Crossing the Chasm to Mass Market Fibre* conference was organised by the FTTH Council Europe, an industry body set up to promote the technology. Even though FTTH is aimed at residential consumers, there are likely to be considerable benefits for businesses from the initiative. Several speakers pointed out that fibre access networks are much more reliable than copper and will lead to higher-quality services, and that consumer demand and competition will drive down prices for all users.

However, statistics gathered by the council and presented at the conference show that Europe – and to a lesser extent, the US – are well behind Far Eastern nations in deployment of fibre systems in the local loop.

The figures showed South Korea as the clear leader with a penetration of 31 per cent, while the highest-ranked European country was Sweden at seven per cent. The UK did not even make it onto the chart.

Viviane Reding, European Commissioner for Information Society and Media, sent a

video message to the conference delegates indicating her desire to see 20Mbit/s become the entry level for broadband



Bamforth: Ofcom and government should do more to support the rollout of FTTH

across Europe in the next two years.

But Ken Ducatel, a member of Reding's cabinet at the EC, explained that European telcos have invested in their core networks rather than access networks, and are now finding it difficult and expensive to satisfy user demands for higher speeds.

Ducatel stressed that new fibre-based access infrastructure must be open and must not stifle competition. How serious the EC feels about this is underlined by its intention to publish a "recommendation for regulation" in mid-2008 aimed at avoiding the creation of new monopolies.

Meanwhile, network operators detailed their plans for FTTH and gave details of the costs involved with expanding their optical fibre networks. These costs vary enormously depending on factors such as population density and the availability of space in existing ducts used to carry optical fibre.

Population density

In Hong Kong for example, a single high-rise building might contain 5,000 households, which makes it straightforward to get the fibre to subscribers. In European cities, population density is much lower, so more distribution infrastructure is needed, making the cost per customer about 10 times higher. Hong Kong consumers already have access to a 100Mbit/s service for £20 per month, plus a gigabit service priced at £117.

Joeri Van Bogaert, president of the FTTH Council Europe, said that the high cost of deploying fibre did not necessarily have to be a barrier to adoption.

"One of the critical factors defining the emergence of mass market FTTH deployment is the involvement of the investment community. Of course, FTTH requires capital and will consume operating expense, but the low-risk returns it promises make it increasingly attractive for international investors," he said.

The UK has so far seen only limited fibre rollouts to domestic subscribers, with the largest being BT's pilot scheme at Ebbsfleet



The Ebbsfleet development in Kent will benefit from FTTH

in Kent, where 10,000 new homes are set to be connected.

New developments like this can be cabled at low cost, but there are major problems when running fibre to existing properties. This is because many UK homes are connected with overhead wires carried on poles, and it is not easy to run fibre cable the same way, and digging up the street is both costly and time consuming.

Because of this, the telcos are wary of committing themselves to broader fibre rollouts. Installing FTTH outside cities is likely to be seen as just too expensive to justify a reasonable business case, and so it will not happen without some external influence, a point not lost on UK regulator Ofcom, which is considering how a new digital divide can be avoided.

The best hope for the UK may be government intervention, according to Rob Bamforth, principal analyst for service provision and mobility at Quocirca.

"The state of FTTH in the UK is a concern to me, especially for a 'knowledge economy' heading towards a downturn. I don't expect BT to fund this – it is no longer the state monopoly – but I expect more from Ofcom and central government than I've seen so far," he said, adding that fibre optic provision ought to be seen as national strategic imperative. However, the investment needed for this is likely to be huge.

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