

Fibre's coming home

The possibility of wide deployment of fibre to the home is perceived by many as too good to be true. FTTH would be great—for sales regeneration as well as customers—but where's the need? Still, one expert believes FTTH is well on the way.

Fibre to the home (FTTH) is a bit like politics. Almost everybody has an opinion about it but not many people know what's really happening, pretty much until after it has happened. And as with politics, there is a range of views as diverse as society itself.

Somebody whose views on FTTH appear to be worth taking seriously is Bob Whitman, manager of global broadband market development at Corning. He is also a co-founder and board director of the FTTH Council (www.ftthcouncil.org). At last month's FTTH Conference in New Orleans, LA, Whitman made a presentation assessing the current state of this technology, its actual penetration in the three main global markets, and its potential. To distill his analysis, Whitman believes FTTH will be a big market and that it may happen as soon as next year. Simple as that.

Following his presentation, *Lightwave Europe* interviewed Whitman about the prospects for FTTH and the impact progressive government policies in some parts of Europe, the United States, and Asia are having on deployment and consequent demand for associated equipment and systems. "With 630,000 subscribers, Japan is the world leader in FTTH deployment and the number is increasing at a rate of 80,000 per month," reports Whitman. "That country already has 13 million cable km, or 24% of the world's total deployment (55 million cable-km). Half of Japan's fibre is going to the home. They are taking fibre right to the building, through the wall, and into an internal media converter.

"One of my beliefs had been that if you have optical fibre to the home it could only come from one provider. But, in fact, in Japan consumers can choose between the likes of NTT, USEN, Tokyo Electric Power, Powercom, and KDDI. Customers can receive a 100-Mbit/sec data-only service via FTTH at a cost of about EUR50-60 per month."

In contrast, the U.S. cable companies, which are also not subsidised, are offering triple play, and Whitman believes that in the United States all service providers will eventually become converged providers. In general, the Japanese network arrangement is cheaper than that in the U.S. because the Japanese structure is essentially a LAN. The Japanese high-speed broadband project started in 2001, and it is intended to cover the whole country, although so far the major deployments have been only in the bigger cities.

Korea's high level of broadband penetration is generally based on ADSL. Whitman notes that the country is now moving toward VDSL on Ethernet. "Then the next step," he adds, "will be for the Koreans to migrate to fibre." Korea has led the world in broadband penetration but data rates are still not that great with ADSL, often less than 1 Mbit/sec. "The Korean development path is a good lesson for other countries to go directly to fibre deployment," he advises.

Although not as advanced as Asia in terms of FTTH deployment, Europe has several important projects active. "Notable are Sweden's Stokab and B2 Bredbandsbolaget," says Whitman. "Then there are at least three projects in the Netherlands—in Amsterdam, Rotterdam, and Eindhoven. Italy is another country where broadband penetration had been relatively low until Fastweb rolled up last year. This company is already delivering up to 10 Mbits/sec to 150,000 customers. Also in Italy, Acantho is a new breed of service provider—a utility company that is taking advantage of its rights of way to deploy fibre to properties."

The EU is providing some pretty good incentives for municipal builds. It has allocated EUR10 billion from the Structural Fund specifically for fibre, and it appears that France is taking advantage of that. And France is one of the leaders in municipal deployments with well over 100 community projects "collectivités" already underway.

Considering the United States, Whitman says the picture is different again. "FTTH is not yet happening in the big cities—it's happening in small rural areas," he reports. "Today, there are 94 communities across the U.S. with lit services. These have been built either because the cable TV service was poor or because there was no broadband available. And there's probably double or triple that amount of FTTH that has been planned but has not yet been built in America."

While there have not been any significant FTTH builds in major U.S. cities thus far, there are opportunities for new FTTH builds—about 1.5 million new homes are built in the United States each year and these are good targets for FTTH installation. So far, all the small FTTH builds have been just that—



small. The current total is thought to be only about 70,000.

Whitman remains optimistic about the prospects for FTTH in the U.S. "There are now some good incentives from the U.S. telecom regulator, the FCC [Federal Communications Commission], to encourage FTTH deployment. DSL does not seem to be a long-term solution," he argues.

If we are indeed at a turning point for FTTH, what are the implications for the components and systems providers? "There are contracts being written at the moment," reveals Whitman. "Most of the developments worldwide have been Ethernet point-to-point structures, but inside the U.S. it's looking more like a PON [passive-optical-network] model."

Corning believes FTTH will be a big market. "We expect to see

volumes picking up in 2004," claims Whitman. And he thinks that because Corning isn't active in the actives sector, the company presents itself as non-competitive to the systems developers...and sells to all of them.



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