



Why copper is shining brighter than ever – the reality of local fibre networks

Chris Stening, MD of Easynet Connect on how copper can meet the UK's Internet demands today

If there is one topic which hasn't stopped ringing in people's ears over the last few years, it is fibre; fibre cables, fibre broadband, fibre infrastructure. The general themes have been reoccurring for some time: How fast will it be? How much will it cost? Who will get it first? When will they get it? Will it arrive by 2010? 2012? 2020? Being on the cutting edge of technology and innovation is always exciting and there is no doubt that a national fibre-based IP infrastructure which provides fibre to the home or business will be a great thing – and of course, for many larger businesses with deep pockets, fibre connections are a reality today, However, where does this leave small-to-medium sized businesses (SMBs) that don't have big IT budgets, but do have a major reliance on their web connection?

The idea that businesses of all sizes are on the verge of having a dedicated fibre connection is more hype than the reality of what a local fibre network will actually be like. The reality today is that this is still in the planning stages. For example, Easynet Connect's national network already uses fibre, allowing ever-increasing bandwidths for businesses across the country. However, the 'last mile' – the local connection between your business and the exchange, or between your business and the distribution cabinet is provided over copper. It is this local copper network which has, and continues to enable technological evolution in support of UK small and medium size businesses and should not be seen as a barrier to innovation.

Calls to send copper to the scrap heap are too hasty and ill considered. Service providers need to think twice about how to make the most of copper cabling and certainly shouldn't write it off yet. When given the right treatment, copper can still go a very long way in delivering the fast, reliable and affordable business-class broadband that UK businesses, and particularly SMBs demand.

Fairly or not, copper has some identity issues which need to be resolved. Its association with the term 'telephone exchange' conjures up images of making a telephone call in the 1950s or the scrambled tones of an old home modem running on a dial-up connection. Granted, much of the copper being used for web access isn't exactly brand new, but the ways in which it can be enhanced and manipulated are very much at the cutting edge. The latest copper bonding and bundling innovations, such as Layer 2 Ethernet and our EtherStream technologies are clear examples of modern and innovative copper-based services.

It is also fair to say that copper's reputation has been tarnished somewhat by the various failures and shortcomings of the Internet as a whole over the last 15 years. According to research Easynet Connect carried out with Quocirca this spring, 77% of SMBs have experienced connection failures at some point, with 29% experiencing unacceptable performance levels of connectivity. The fact that so many businesses have had poor experiences with their IP connection shouldn't be put down to the fact that they used copper-based services, however it feels like stigma is being unfairly attached.

The idea that these troubles would disappear entirely thanks to a brave new world of fibre however, does not accurately reflect the whole picture.

First of all, many outages can be caused by errors or faults at a network-provider level, such as at the local exchange or in the core network, which would be the same whether using a copper or fibre connection. Secondly, levels of service are more often than not due to the performance of the Internet Service Provider (ISP) itself, rather than what the cable is made from. For instance, a 99.9% uptime Service Level Agreement is the same whether using fibre or copper and a one-hour minimum outage recovery time isn't guaranteed by the material of your connection, but by the agility and skill of your ISP.

When it comes down to it however, businesses are solely concerned with getting better broadband and there is a definite point when future gazing and prediction should be replaced with the cold light of every-day practicalities.

From speaking with many of Easynet Connect's customers and SMBs about what copper and fibre means to their business, some common themes emerge which always bring 'high level' industry debates on infrastructure back to ground level. Most small businesses have simple priorities and concerns when it comes to their internet connection. They want a connection which meets their individual business needs, a reliable service provider, good levels of customer service, value for money and the ability for their connection to scale and adapt to their business. The material from which the pipes are made makes little or no difference to this, as long as the service they have enhances and doesn't hamper their business.

There is no doubt that fibre in the last mile, when it arrives, will be excellent. However, when it comes to the here and now, we won't go wrong if we put our broadband faith in our copper infrastructure until the fibre future becomes a reality.