

# Securing Internet and Broadband Services

By Gary Hough

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BUSINESSES ARE NOW HEAVILY RELIANT ON THEIR INTERNET CONNECTIVITY AND MUST ENSURE THAT THEY ARE GETTING THE LEVEL OF PERFORMANCE AND SERVICE THEY NEED TO COMPETE. A RELIABLE, HIGH PERFORMANCE CONNECTIVITY SERVICE CAN OFFER A REAL COMPETITIVE ADVANTAGE AND ENABLE PRODUCTIVITY IMPROVING APPLICATIONS TO BE EMBRACED.

THERE ARE various business broadband product offerings available to small and young businesses. The enablement of BT's 21st Century Network (21CN) deployment continues to grow. This allows customers to have access to speeds of up to 20Mbps using ADSL2+ technology but line speeds are still dependent on factors such as distance from the local exchange and the customer's internal wiring.

However, fibre optic broadband is set to revolutionise business in 2012. With downstream speeds of up to 40 or 100Mbps and upstream speeds that can reach 30Mbps, it enables a wider range of organisations to benefit from bandwidth-intensive, IP-based applications.

The story has already begun. As of June 2011, fibre optic broadband access is available to 5 million homes and businesses, or over 20% of the UK population. We expect this to exceed 10 million premises, 40% by the summer of 2012.

Feedback from early users confirms that fibre optic broadband performance transforms their Internet experience, not just by making existing services faster, but by enabling businesses to try new applications that might previously have been out of reach.

Even the smallest businesses can benefit. Web-based services, including online backup, Internet telephony, email and video-conferencing, become far more practical on the stable, high-speed connections that fibre optic broadband will provide.

Fibre optic broadband has been revolutionary for many customers of ISPA members with the majority experiencing at least a threefold increase in speeds. A

Lancaster-based business that has been using fibre optic broadband since the summer of 2010 saw a huge increase in speed – "It felt like we had gone back to using analogue modems and then fibre optic broadband arrived. Wow. I have just run a speed-test and managed 34Mbps. Even our upload speeds have surpassed that of our previous service."

For the small to medium-sized enterprise (SME), fibre optic broadband opens up new opportunities in environments where an Ethernet or leased line connection might not be practical or economical. Cloud computing and Software as a Service (SaaS) applications then become a realistic option for branch offices, and SMEs can start doing more with less capital expenditure and lower ongoing support costs. Larger-scale, multi-user VoIP deployments become more practical throughout an organisation.

Most importantly, the convergence of the office with the virtual office becomes a reality. With fibre optic broadband, remote workers can share documents seamlessly, back-up their work to central servers, and use the same software updates, cloud-based services and SaaS applications as their colleagues in the office. Whole enterprises, containing multiple smaller offices, can be integrated as one.

The advantages are clear. What might not be so clear are the differences between the two variants of fibre optic broadband: Fibre to the Cabinet (FTTC) and Fibre to the Premises (FTTP). FTTC offers download speeds of up to 40Mbps, and uses fibre to connect the local exchange to the pavement cabinet, but a traditional copper-based connection to cover the final few hundred metres between the cabinet and



the premises. FTTP, as you might expect, covers the whole distance, and boosts the potential downstream speed to 100Mbps.

The key thing is not to see FTTC and FTTP as rival technologies, or as one superior and one inferior service, but as parts of a next generation 'mixed economy'. FTTC and FTTP will be deployed in different situations or environments, with only one option available to each premise. For a start, FTTC will only be available to those homes and businesses served by a street cabinet, and not those premises which are directly connected to the exchange (which accounts for around 11%). Those sites would be candidates for FTTP deployment. FTTP will also be the alternative to FTTC in other locations for a range of economic and practical reasons. In total, FTTC is expected to account for 75% of all fibre broadband connections, with FTTP taking up the rest.

ISPA believes that fibre broadband is a tremendous opportunity for young businesses and SMEs alike, and it is important that deployment of this technology is balanced between businesses as well as residential users. In the business market, fibre optic broadband should be plugging the hole between DSL services and leased-line or Ethernet-based services. For SMEs, it could be the gateway to a new world of cost-effective Cloud-based services – services which might revolutionise the way they work.

#### • About the author

• Gary Hough is an ISPA Council member and Regulatory Manager at Zen Internet.

• The Internet Services Providers' Association (ISPA) UK is the trade association for companies involved in the provision of Internet Services in the UK and currently has over 200 members, representing more than 95% of the UK Internet access market by volume: [www.ispa.org.uk](http://www.ispa.org.uk).

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