High-quality broadband has become 'essential'

Infracapital co-founder **Ed Clarke** and director **James Harraway** argue fibre networks are the new utilities and explain why the explosive demand driving growth in the broadband sector is unlikely to die down any time soon

Telecoms is a sector that has evolved quite rapidly from a technological perspective, but also in terms of its role in consumers' lives. What is driving demand in the sector?

JH: It helps to delineate between types of user, specifically between consumers and businesses. Consumer demand, historically driven by communication, is now primarily driven by entertainment, which is increasingly being satisfied by 'over-the-top' services such as Netflix or Amazon Prime. Major content owners are also seeking to monetise their content assets by distributing directly to consumers, for which a fast and reliable broadband connection is critical.

Consumer demand is also supported by growth in the 'Internet of Things'. As homes become smarter, domestic functions such as heating and security systems, as well as appliances such as washing machines, are always connected, adding up to a sizeable demand for data. Finally, as working patterns have changed, people are working from home more and more, which is facilitated by high-speed, reliable broadband connection.

For businesses the demand drivers are different, and are primarily due to the movement of data storage and software provision off-site. Businesses, which used to store their data and software on their own servers at their offices, have moved to cloud-based data storage and software provision, which requires high-speed, reliable connectivity.



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Do you think this demand can remain robust regardless of the macroeconomic environment?

EC: I think the evidence of how demand has grown over the last 15 years suggests that it's not particularly sensitive to the economic cycle. There may be increasing pressure in the future on retail prices for a lot of these services as they become more established and consumers become more demanding.

JH: A high-quality, reliable broadband connection has become essential to households. Consumers cannot access entertainment content at home or on the move without the ability to download data, and as each year passes, more basic services move online. For example, as we move towards a cashless society people bank online, as a result of which banks have been closing some of their branches. So, if you don't have a decent internet connection at home you're going to struggle to bank. Broadband is becoming another utility, the way we look at water or electricity.

EC: And that's really one of the key things for us. We effectively see fibre networks as infrastructure assets similar to water, gas, and electricity distribution networks, connecting the consumer to that basic service. We have primarily focused on that sort of end-level connectivity because most of the content providers don't want or need to own the infrastructure, they're much more focused on monetising their content.

As a result, you're seeing the start of a demarcation between wholesale infrastructure owners and the service providers that provide their service over the top of that infrastructure.

We've talked about the factors driving demand. Are there other underlying growth factors that make broadband a good opportunity for infrastructure investors?

EC: There are some European countries that are more advanced than others, but in many countries, there is an incumbent telecoms infrastructure business that built

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a copper network over the last 100 years or more, and has had little incentive to convert it into fibre because of its monopoly status. These businesses have invested incrementally in improving their existing networks, but there's been a hesitancy to incur the capital investment to upgrade to fibre networks.

I think what's happened in the last couple of years is the rapid growth of internet use has pushed that to a point which is no longer sustainable. And what we've seen is the emergence of alternative network providers, or alt-nets, which are disruptive, small businesses looking to provide that service if the incumbent isn't.

Equally, however, we've seen incumbents waking up to the need for change. They're also getting pressured to change, both from the competitive threat of alt-nets coming in, but also from political and regulatory forces. And to go from a copper network to a fibre network requires high levels of capex. The reason we think broadband is a good opportunity for infrastructure investors is because a lot of these big corporates don't necessarily have the appetite or the wherewithal to deploy that capex.

We've been involved at both ends: in Poland, we have established a joint venture with Nokia to roll-out fibre infrastructure, and in the UK we have an investment in Gigaclear, which is rolling out fibre in rural areas.

Speaking of your participation in the market, last year the UK government tapped Infracapital to support the country's fibre roll-out programme. Can you elaborate on this partnership?

EC: In terms of fibre connections, the UK is at the lower end of household penetration compared to other European countries, with less than 5 percent having a fibre-to-the-home connection.

The UK government is a strong believer in the importance of fibre networks to provide the connectivity which forms the bedrock of a competitive, modern economy. They therefore introduced a number of Broadband is becoming another utility, the way we look at water or electricity" Harraway



measures to stimulate fibre roll out, including the Digital Infrastructure Investment Fund, of which we are a manager. The government objective for the DIIF was to show their support and commitment to the sector by directly investing in building fibre networks, and to stimulate further investment by crowding-in other, long-term institutional money to support the roll out, and that's what we've seen happen as a result of that scheme.

JH: The Broadband Delivery UK scheme is another initiative which Infracapital has been able to get involved in via our investment in Gigaclear, which was awarded a number of the BDUK contracts to roll out fibre in rural locations, with the support of a government subsidy.

Infracapital's primary geographic focus is Europe. Do you find that the business model differs from country to country when it comes to broadband?

JH: There are differences in several areas. The first is existing infrastructure, where countries have evolved in different ways. In the UK and Germany, for example, you have the big incumbents who have focused on improving their legacy copper assets to meet the broadband need. Incumbents in countries like Spain and Portugal, on the other hand, have made enormous

investment in fibre infrastructure. As a result, the majority of homes in Spain and Portugal have fibre connections direct to the home; in the UK and Germany it's less than 5 percent.

The second area is regulation. Whilst there is commonality of regulation at EU level, in each country there's a regulator dealing with their existing infrastructure and market structure, in different ways. France, for example, has taken a PPP-type of approach to get investment in fibre. In Poland, there is a national broadband plan, which provides subsidies for fibre network investment, which Nexera, our joint venture with Nokia, has secured.

Thirdly, the market structure is different in each market, in terms of the way connectivity services are provided and consumed. **EC:** But, underneath all of that, the demand drivers are the same. In our view, fibre is the key ingredient that enables all the changes in the telecoms sector to happen. It is the backbone which provides the high-speed, high-capacity connectivity, which then allows all the different demand drivers to be satisfied, which is why we find it to be such an attractive investment opportunity.

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