

Centre for Rural Economy Policy and Practice

BRIEFING PAPERS: Rural Broadband



Rural Broadband

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How are rural areas disadvantaged?

Many rural parts of Britain have an inadequate telecommunications infrastructure for broadband services. Some areas have no broadband at all and in others the supply is inferior to that in urban areas. In terms of the step change to Next Generation Access (NGA) already underway in some parts of Britain there is little market interest in providing for rural areas. The Analysis Mason 2010 report for the Department of Communities and Local Government assessed that 87% of rural areas would be at high risk of not having NGA in 2012 compared with 22% of urban areas.

Provision of high speed broadband to rural areas is not just about equitable distribution of services, but also about enabling rural businesses, households and communities to realise their potential and thereby bring wider benefits to society. Early visionaries may have been naïve in the futures they foresaw, but they were right to accentuate the transformational potential of Information and Communications Technology (ICT) for addressing remoteness. ICT could make a substantial contribution to: improvements in the provision of many services in rural areas including diagnosing health problems remotely, distance learning, home-working and telemarketing; the competitiveness of many rural businesses; and the green agenda by enabling people to work more readily from home and reducing the need to travel for some services and provisions.

How can government address the rural broadband gap?

Jeremy Hunt, Secretary of State at the Department of Culture, Media and Sport, recognises that the “Government must ensure we do not open up a new digital divide between the urban areas most attractive to infrastructure providers and rural communities where superfast broadband may never be viable” (Speech, 8.6.2010). This rhetorical commitment, though, belies the difficulty for government in intervening to support the provision of broadband to rural areas. These include:

- Demand for broadband is not static and so a single supply intervention by government is unlikely to be a permanent resolution. Broadband provision itself opens up new and unforeseen opportunities for usage and quickly raises the threshold of what is deemed a sufficient quality of broadband service.
- As soon as a broadband service has been provided to an area, a better quality of service becomes available because the technology or the cost models have changed. The quality of the service is improving all the time, but it is the urban, highly populated, areas that the market providers choose for the upgraded services.
- The dynamic nature of the resulting rural/urban broadband gap means that a one-off public investment is unlikely to be a permanent solution.
- Government needs a long term plan for addressing the rural/urban broadband gap, and any investments in infrastructure need to include contingency for further development.
- At a time of highly constrained public spending, government will need to be creative and make targeted interventions to be effective.

What targeted and creative interventions could government employ?

Targeting poorly provided areas

In order to be cost-effective, interventions that accurately target the poorly provided areas will be an important strategy for the government. But in order to do this, it needs to decide what level of service is sufficient, now and in the future. Government policy convention appears to use 2 Mbps as an appropriate basic service level for present-day needs. However, this is an arbitrary threshold: people may still need more speed or quality in order to achieve their intended outcomes via broadband, and 2 Mbps is fast becoming a low speed compared to that available in many cities. A longer term aspiration is for universal NGA, but a clear articulation of the level of service this implies is still needed.

Having set such attainment targets, the next step in targeting would be to identify the locations of poorly provided areas. This, though, is also problematic. Even understanding which areas are currently provided with less than 2 Mbps is difficult. The available national data from OFCOM obscures the position for more rural areas by showing the percentage of premises connected to a DSL-enabled exchange (with the potential of delivering a 2 Mbps service). Significantly for rural areas, premises at a distance from an exchange are unable to realise this potential. So while OFCOM data for 2008 showed that 99.98% of UK households were connected to a DSL-enabled exchange, suggestive of no rural broadband shortfall, the Commission for Rural Communities in their 2009 report 'Mind the Gap' claimed that 42% of those in rural areas could not connect to a 2 Mbps service.

There is an urgent need for more accurate data on broadband speeds and service quality in rural areas. Some local authorities, LEADER groups, community groups or community broadband organisations carry out ad hoc local surveys, but such local knowledge needs to feed into a bigger picture for central government policy development.

Encouraging new/alternative suppliers

The government needs to continue its efforts to encourage new suppliers into the market, but be mindful of the extent to which these will address the rural gap:

- Initiatives such as 'Race Online 2012' to get non-users connected should stimulate demand for, and consequently supply of, broadband. However, these would need to have a greater effect in rural areas than in urban areas to address the relative paucity of rural supply.
- In principle, the rural gap would be better served by measures that directly affect the supply of broadband, such as regulations to ensure that the telecommunications market is made as accessible as possible to new entrants. However, the effects of such measures to date have not been significant in bringing high quality broadband to many rural communities.
- An approach that has been effective in some rural areas, and has the potential to make greater impacts, is community broadband. The ethos of this resonates with the government's Big Society agenda and would benefit from its aims to encourage social action through better resourcing of the voluntary and community sector. Support to community groups proposing to set up community broadband initiatives will be vital, with the Independent Networks Co-operative Association (INCA) and the Community Broadband Network both having an important role to play in this respect. However, this approach is unlikely to provide highspeed broadband to all rural areas for all time:

- As with the provision of any services, there will be some communities which have the necessary resources to undertake such ventures and some which do not;
 - In areas of high social exclusion, community members may not be aware of the benefits of broadband and thus will not be motivated to help themselves;
 - There are some community broadband initiatives, like Cybermoor in Cumbria, which become high growth and pioneering social enterprises; others, though, prefer to work on a voluntary basis around principles of mutual aid;
 - Some have provided a service for a limited period and then disbanded;
 - Providing NGA rather than basic broadband will add many new challenges that might discourage continuation for some existing community broadband organisations and appear too daunting for some potential new entrants.

Exploiting e-government fibre networks

The public sector is in the process of rolling out, rationalising, and upgrading its fibre networks in order to deliver e-government and e-services. Many of these take high speed cabled broadband to rural areas to connect schools, fire services, libraries, health providers and so on. Given the political consensus around the failure of the private sector to provide basic broadband and the anticipated lack of delivery of NGA to more rural areas, two important means of providing a 'rural gain' from the development of these networks could be considered:

- What influence could be brought to bear by government on the contractor/potential contractor for a rural gain when negotiating contracts? If leasing space in existing ducts and pipes for an e-government network, could this be used to negotiate for open access for all potential telecommunications providers?
- Could spare capacity be built into the core fibre network and sold to providers of 'last mile' connections? This would be technically simple and cheap to do, and has the potential to bring major benefits to rural businesses and residents.

At present, though, there is little evidence of these approaches at the national level, and they are not discussed in the national government's ICT Strategy (2010). Some rural local authorities have attempted to provide 'rural gain' from their e-government network developments, but often with very limited results. For the first approach, rural local authorities may lack the scale and buying power to be highly influential in their negotiations. A number of rural local authorities have attempted to use the second approach to achieve rural gain, but, to date, governance issues have usually served to significantly limit this. There are two interrelated issues here which are often compounded by a lack of experience at the local authority level:

- While a local authority has a clear duty to provide and service telecommunications links between its public sector sites and a department/section with this responsibility, it is not organised to provide to individual businesses or residents. This role should fall to the private sector, and there is therefore a need for the public sector to develop a means of packaging its spare bandwidth to allow a private company to deliver the 'last mile' connections to residents and businesses.
- The state is not allowed to intervene in ways that distort the market, and although the European Commission produced specific clarification on the application of State Aid Rules to broadband deployment in 2009, arguing the case of market failure in a State Aid notification is still constraining potential developments in all but the most pioneering local authorities.

There are a number of useful roles that central government, with its commitment to the roll out of rural broadband, could play in supporting the exploitation of e-government fibre networks development for 'rural gain':

- There is a need for guidance for all tiers of government (including central government) on how to exploit the development of e-government fibre networks for rural gain, in particular:
 - how to maximise their leverage on contractors/potential contractors while adhering to public sector codes of conduct;
 - how to set up the best organisational forms to trade their spare capacity with a private sector telecommunications provider;
 - how to argue the case of market failure for State Aid notification.
- Instigate the presumption of rural broadband gain for all central government departments and tiers of government activity and a system to ensure adherence of this. This could be applied not only to the exploitation of e-government networks to benefit rural areas but also might require them to consider building ducts into every new build section of road, and making ducting a planning requirement for all new buildings.

What recommendations can we make to span the rural broadband gap?

- Visualise the gap as dynamic and in need of on-going interventions
- Define target speeds and quality that address future needs
- Develop accurate mapping of the quality of broadband provision
- Continue to encourage new suppliers
- Encourage and support community broadband initiatives
- Exploit government buying power when procuring e-government fibre networks
- Build in, and sell on whenever possible, spare capacity on e-government networks
- Develop effective organisational models and guidance over state aid permissions that enable such activity
- Instigate a presumption of rural broadband gain across all government departments and tiers of government.

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