

## Broadband connectivity

### Summary of RSN policy messages

- Improve the targeting of Government funding for broadband, placing greater emphasis on delivery to deep rural areas.
- Ensure the proposed 10 Mbps broadband USO gets up-rated on a regular basis.
- Make public funding available to help rural households and businesses with the otherwise inequitable costs they will face under current USO proposals.
- Ensure the USO supports a range of broadband technologies (and not just fibre).
- Make suppliers release premises level information about access to broadband, in order that public bodies and community groups can plan to plug the gaps.
- Step up efforts to encourage the exploitation of broadband, so rural economies realise the anticipated benefits.
- Review options and act to improve access to mobile phone networks in rural areas.

### Context

Access to broadband has become a staple of modern life. It is an enabler of business competitiveness and innovation, household access to services, children's education, home working, farmers completing paperwork and social interaction among family, friends and citizens. Broadband has the potential to mitigate the rural disadvantage that results from geography and peripherality. Conversely, without it, rural economies will fall further behind and communities may grow more isolated.

It is widely understood that in many rural areas telecoms infrastructure providers will not build broadband networks on a commercial basis. Public sector investment has been required to reach the current position. Considerable progress has been made in recent years, but deep rural areas continue to miss out.

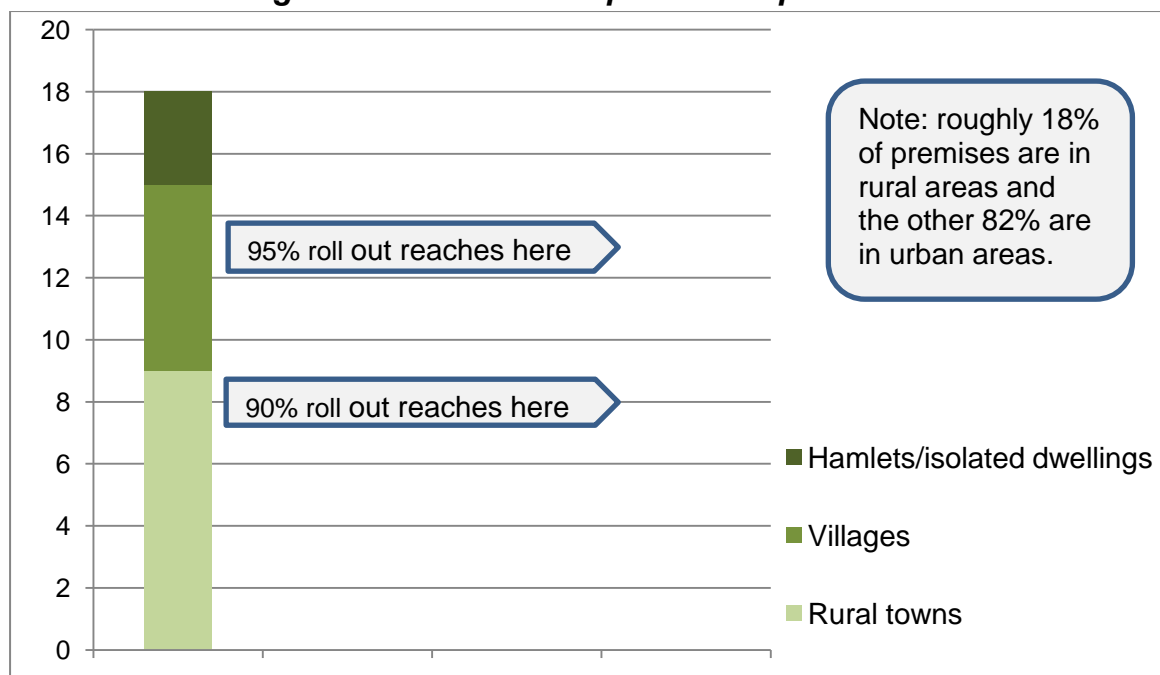
According to telecoms regulator, Ofcom, in 2014 the average (download) speed in England from a fixed broadband connection was 24 Megabits per second (Mbps). It was 13 Mbps in rural areas and 8 Mbps in villages. These averages mask variation and many rural communities are without even a basic broadband of 2 Mbps.

### Rural issues

Among rural issues are the following:

- State of progress: central and local government have invested significant sums in the Superfast Broadband Programme and connectivity is improving in rural areas. However, much of the improvement has been in easier-to-reach rural areas. Delivery to deep rural areas is more costly and technically challenging.
- Who is targeted: the Government's stated target that 95% of premises should have access to superfast broadband by the end of 2017, whilst welcome in one sense, has steered much of the publically-subsidised network roll out to areas which were commercially marginal, rather than the most uncommercial areas. In many cases marginal areas already had access to reasonable (if not superfast) broadband speeds.
- Remaining areas: the 5% of premises which fall outside the current Superfast Broadband Programme represent, perhaps, a quarter of all rural premises and, perhaps, half of smaller rural settlements (villages, hamlets and isolated dwellings). Very few farms have superfast broadband access. There is clearly more to do to achieve the stated Government aspiration for "near universal superfast broadband" by 2018.

**Broadband targets in relation to the per cent of premises in rural areas**



- Isolated communities: local analysis has shown that the areas not due to benefit from the Superfast Broadband Programme are typically the same areas that already have poor physical access to service outlets. It may compound their isolation.

- State Aid regulations: rules negotiated by the UK Government with the EU, to allow public subsidy for broadband infrastructure, have proven complex and inflexible, slowing delivery and making it hard to fund technologies such as wireless. The last UK derogation ran out in June 2015. No new contracts can be entered into with public money until a new derogation is negotiated. This process, if there is one, could take a year or so.
- Monitoring: data from the Superfast Broadband Programme masks gaps in provision, making it hard to assess whether the 95% target is actually being met. Commercial providers report on availability by post code areas. But not all premises within a post code will necessarily benefit. In large rural post codes outlying premises may be too distant from a BT street cabinet to do so.
- Commercial retraction: county infrastructure reviews conducted in 2014 found that telecoms providers planned commercial superfast broadband networks in fewer areas than they indicated in previous reviews. This means more areas are being treated as marginal, with public subsidy presumably expected. If investment intended for the final 10% is instead used to compensate for commercial retraction, it becomes harder still to deal with deep rural areas.
- Outdated target: the existing universal target for terrestrial broadband speeds (2 Mbps) badly needs up-rating. The proposed Universal Service Obligation or USO (see below) would seek to address this, though may not apply for a few years. In the interim many rural premises have slow connections, often less than 2 Mbps, making everyday online applications impractical.
- Mobile connectivity: the use of mobile devices for internet access has grown exponentially and this trend looks set to continue as high-speed 4G networks expand. Ofcom says less than 1% of premises are without a 3G signal from any network provider (so called 'not spots'). A far more common concern is the 12% of (often rural) premises with limited coverage from some, but not all, providers.

## Government policies

This topic is the responsibility of Broadband Delivery UK (or BDUK) based in the Department for Culture, Media and Sport. Government targets are that:

- 95% of UK premises should have access to superfast broadband of at least 24 Mbps by 2017 (90% by 2016); and
- 100% of UK premises should have access to basic broadband of at least 2 Mbps by 2016. In 2015 Government said this target was met because any customer could now pay for a satellite broadband connection.

Progress towards the 95% target is being delivered by the Superfast Broadband Programme, through which Government is investing £780 million, match-funded by local authorities – not a cost faced by urban authorities. All 44 phase one contracts were awarded to BT as competitors dropped out or failed to qualify for State Aid.

A final phase of the Superfast Broadband Programme has funded ten pilot projects which have proven the capability of differing technologies to work in final 5% areas.

In Autumn 2015 Government announced its intention to introduce a Universal Service Obligation (USO), entitling all premises to a broadband connection of at least 10 Mbps by 2020. Ofcom currently views 10 Mbps as the right threshold “to deliver an acceptable user experience” and says that 1.5 million UK rural premises do not have this. Recent Government and Ofcom consultations have clarified that this USO will actually be a right to request a 10 Mbps connection. Where the cost of installing such a connection cost is above a threshold the customer is likely to have to pay for construction charges. The USO costs would thus be borne by customers and providers who take part in the scheme, and there may be no public funding.

Another Government aim is to improve mobile phone coverage in remote areas by 2016. BDUK ran the Mobile Infrastructure Project (MIP), which was supposed to invest £150 million to extend coverage in the remaining ‘not spots’. In reality spend has been less than £10 million and few new masts have been erected.

## **RSN policy messages**

The Rural Services Network considers that:

1. During the remainder of the Superfast Broadband Programme public funding should be better targeted. Government should prioritise deep rural areas, where market failure is most acute and the clearest case for intervention exists on grounds of equity. This should include the use of recycled funding, which is generated by claw back arrangements where superfast broadband take up is high. Provision in hard-to-reach areas need not always be at superfast speeds, but it must be sufficient for typical online applications.
2. The intention to bring in a broadband USO is welcome, in principle. The current proposal to set this at 10 Mbps is acceptable at present, but will need regular review to keep pace with online applications and expectations. Even by the time the USO is introduced 10 Mbps may no longer be appropriate.
3. It is reasonable and fair that Government contributes towards the potentially very high connection costs in deep rural areas. Current USO proposals are inequitable, in expecting those households and businesses to pay a large

premium for construction costs to get a decent broadband connection. Nor is it clear how the 'reasonableness' of such costs would be measured fairly by network providers. Deep rural households and businesses may be left choosing between paying a large bill or staying with a slow connection.

4. The USO should be implemented so it ensures that a range of technologies can be used to connect deep rural communities. Fibre connections to the street cabinet may be of limited use in some areas and other technologies, such as wireless or fibre to remote nodes, may be better suited. This approach could also benefit community broadband schemes.
5. If Government, local authorities and communities are to tackle the residual problem they need an accurate picture of which premises can and cannot access superfast broadband. Post code area data is too crude for them to draw up workable plans and projects. Given the scale of public contracts with BT, the quid pro quo should be access to detailed information.
6. Government should see satellite, which it says delivers 2 Mbps broadband universally now, as merely an interim solution. Although it can be an option for rural premises, user charges for this technology are typically high and latency (or signal delay) can be an issue.
7. Various parties need to step up efforts to stimulate demand, so that superfast broadband take up increases and its potential is exploited, especially by rural based businesses. This will also improve the return on public investment.
8. Government needs to become more active in exploring options to improve access to the different mobile phone networks in rural areas. These could include further mast sharing between networks, roaming between networks and regulating access to BT backhaul infrastructure for other 4G operators.

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