Needs of the Region: Scotland, United Kingdom

Avanti Communications

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Needs of the Region: Scotland

The Broadband Needs of Scotland and the Non-Technical Roadblocks

The aim of this presentations is to capture the Regional Broadband Needs of Scotland and identify any potential non-technical roadblocks that exist.

Presentations may be posted of the EC Broadband Portal

1. What are the main objectives of a broadband scheme in your region?

➢ *To Meet the EC Digital Agenda*

The Digital Agenda for Europe (DAE) aims to reboot Europe's economy and help Europe's citizens and businesses to get the most out of digital technologies. It is the first of seven flagship initiatives under Europe 2020, the EU's strategy to deliver smart sustainable and inclusive growth.

➢ *To Provide Broadband Scotland*

Scotland's Digital Future Action Plan outlines the Scottish Government's commitment to a world-class future-proofed broadband infrastructure that will deliver digital connectivity across Scotland and meet the EU's DAE.

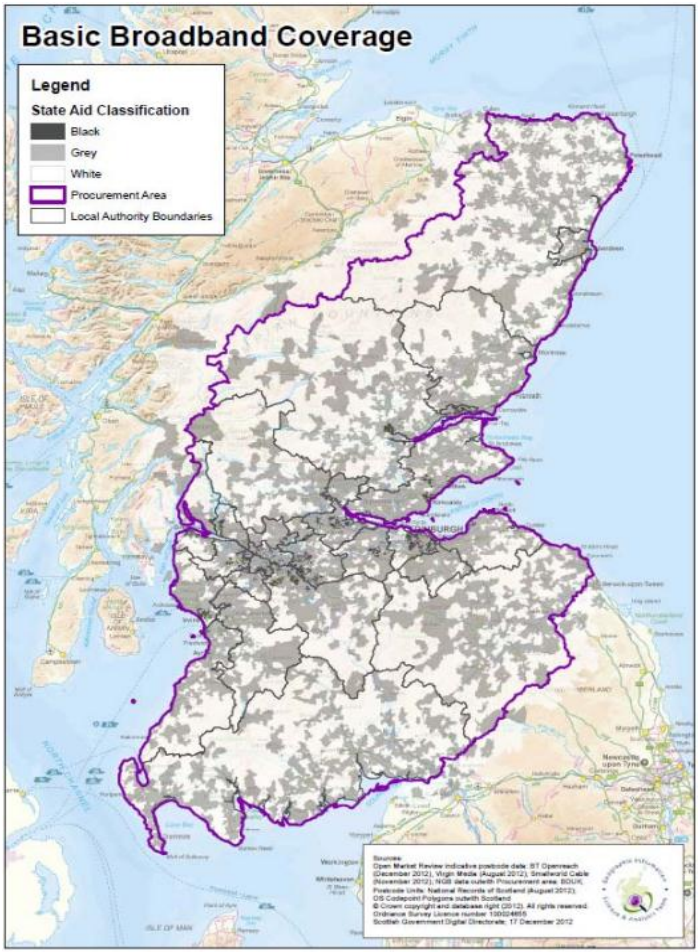
1. What are the main objectives of a broadband scheme in your region?

➢ *To Close the Digital Divide*

The Scottish Government's *Step-Change 2015* plans will first address the digital divide by extending Scottish broadband infrastructure so that it will have the capacity to deliver next generation broadband at speeds of 40 to 80Mbps to between 85% and 90% of premises by 2017.

In the remaining areas, The Government is generating a procurement strategy that will deliver a significant uplift in speeds for those where 40 to 80Mbps is not possible at this stage.

2. What are the target regions for a broadband scheme?



➢ *Basic Broadband Mapping*

On the Scottish Government's Basic Broadband Coverage map (left), each postcode is coloured Grey, if greater than 90% of delivery points have access to connection speeds in excess of 2Mbps from a single provider.

If greater than 90% of delivery points have access to connection speeds in excess of 2Mbps from more than one provider the postcodes are coloured Black.

All postcodes that receive a connection of less than 2Mbps or no broadband connectivity at all are coloured white.

2. What are the target regions for a broadband scheme?

➢ *White Areas*

Total No. of Local Authorities	Black Postcodes	Premises in Black Postcodes	Grey Postcodes	Premises in Grey Postcodes	White Postcodes	Premises in White Postcodes	White Premises in White Postcodes
27	24,025	529,975	103,130	1,789,860	9,021	62,447	43,707

Public sector intervention will only be targeted at EU-defined White Areas, so from the Basic Broadband mapping, the total number of premises eligible for intervention are:

62,447 premises, 9,021 postcode Areas.

Table Key:

- **Black Postcodes:** 90% of delivery points have speeds > 2Mbps from 2 or more providers;
- **Grey Postcodes:** 90% of delivery points have speeds > 2Mbps from 1 provider;
- **White Postcodes:** All delivery points have a speed of < 2Mpbs, and
- **White Premises in White Postcodes:** No broadband connection at all.

2. What are the target regions for a broadband scheme?

➢ *Rural Communities*

A rural community broadband scheme has been launched to provide a one-stop-shop for rural community groups in White Areas to develop broadband coverage in their regions.

The initiative comprises a range of support mechanisms including advice, guidance and toolkits available on the Scottish Government's website, a telephone advisory service and a ground network of staff delivering practical hands-on support locally to communities.

A Start-Up fund amounting to £5m over a three year period has been made available to provide targeted financial support to those communities least likely to benefit from a next generation broadband solution under the Scottish Government's other plans.

3. What kind of scheme is needed?

➢ *Network*

By encouraging collaboration between communities, businesses and the public sector as well as local infrastructure initiatives in rural areas and the testing of innovative technologies the Scottish Government wishes to see a Step-Change in its rural connectivity by 2015.

➢ *Technology Neutrality*

The Government has made it clear that they will not specify a particular technology to achieve their aims, although experience elsewhere suggests that fibre will be the primary technology where it is affordable and that it will be supplemented, where appropriate, by a mix of other technologies such as wireless, mobile and satellite.

3. What kind of scheme is needed?

➢ *Management*

The Scottish Government will manage the procurement using the Broadband Delivery UK Framework (BDUK) as this offers a timely and effective route for developing the infrastructure and will enable the delivery of connectivity improvements for the people of Scotland as quickly as possible.

➢ *Prioritization*

In consultation with infrastructure providers, the Government will also ensure a balanced approach to prioritising the delivery of connectivity improvements between those areas with the biggest economic impact in terms of businesses and individuals served, and those where they will be the biggest improvement relative to existing availability.

4. Looking to the Future

➢ *World-Class 2020*

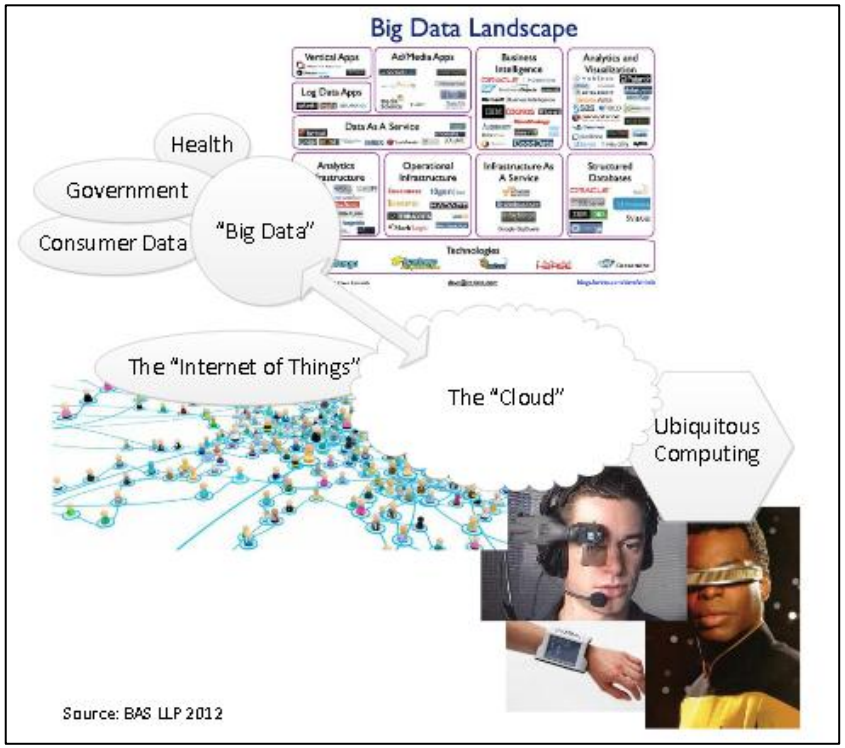
The Scottish Government has also generated *World-Class 2020* a program which plans to build on the initial *Step-Change 2015* infrastructure to provide world-class connectivity by 2020, backed by the mechanisms, partnerships and commercial models to make this happen in a sustainable way.

World-Class 2020 aims to allow the Scottish people to access information and services throughout Scotland with commercial packages offering connectivity of 250Mbps – 1Gbps.

Education will be transformed as students of all ages utilise new forms of e-learning and the default engagement with health-care will be online – from appointment booking to remote support and monitoring.

4. Looking to the Future

➢ *The Digital Eco-system*



The networks of 2020 will be hybrids, but their nature will be less visible to end-users. Network providers will make decisions about how devices connect and interact to provide services.

The Internet of Things, Cloud Services and 'Big Data' will be enabling elements.

To take full advantage of the Digital Eco-system, the rural Scottish population will need access to broadband speeds to properly exploit the internet.

5. Non-Technological Roadblocks

➢ *Topography, Scale and Access*

Scotland has a population of approximately 5.2m, of whom 1m live in rural areas, and although this percentage is consistent with England, the significant difference is the extreme 'rural-ness' of much of the Scotland.

This presents unique challenges in scale and access and this is reflected in the on-going difficulties experienced by many remote and isolated communities, particularly in terms of installation of services and maintenance of equipment.

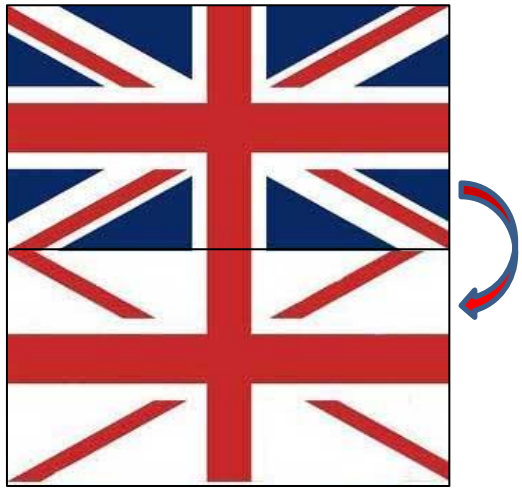
Simply reviewing the railway coverage superimposed upon a physical map of Scotland (right), illustrates the issue of access in the remote rural areas.

5. Non-Technological Roadblocks

➢ *Scottish Independence*

Where it is not commercially viable to roll-out rural broadband, subsidizing schemes, using funding from the e.g.: the Central Government or the EU, has so far proved a successful method for implementations across the United Kingdom.

In 2014, there will be a Scottish Referendum asking the population if they would like Scotland to become a Nation independent from the rest of the UK. Should Independence become a reality, it is thought that Scotland would have to apply for EU membership in its own right, and it would also obviously no longer be eligible for funding from the UK Central Government. The impact this would have on the Scottish National infrastructure plans is unknown at this time.



However, should Scotland leave the United Kingdom, new opportunities in the electronic communications area may well open up as national regulation and legislation is reviewed and potentially changed.

5. Non-technological roadblocks?

➢ *Satellite Technology*

In some instances, tenders for broadband network implementations can be unintentionally biased towards fibre or copper wire technologies.

The reasons for this can be many and varied. A lack of knowledge can mean that authorities are not always aware that today's satellites can provide the superfast speeds required by their National Broadband Plans, or that 100% of Europe has satellite broadband coverage. Further, the cost of satellite equipment is no longer prohibitive to roll-out and in many cases, the on-going cost to the end-users are the equivalent to terrestrial solutions.

The submission of satellite-based solutions to public tenders should therefore be encouraged in countries such as Scotland, where a low population density, spread out over difficult and rugged terrain, makes such a solution the most cost-effective and efficient way of bringing broadband connectivity to the rural community.

Thank You