South of Scotland Local Broadband Plan

The South of Scotland Alliance (SoSA) recently submitted a Local Broadband Plan (LBP) to the Innovation and Digital Economy Team at Scottish Government. The LBP explores in detail the challenges facing the South of Scotland with respect to the rollout of Next Generation Broadband (NGB). The LBP discusses the demographic characteristics of the South of Scotland, describes existing and planned infrastructure, and identifies the gap between current/planned service and the overall Scottish Government target of NGB for all by 2020.

This report is a summary of the LBP and views previously submitted to the Scottish Government User Intelligence Group on Next Generation Broadband.

South of Scotland Broadband Coverage

Like most rural areas across the UK, the South of Scotland is predominantly served by BT through its network of exchanges. There is very little competition at the infrastructure level, with the main exception being Pathfinder South. This is a managed network connecting all local authority sites including schools and is provided by Cable & Wireless. Mobile provision is limited to 2G in most areas, with large areas of mobile black spots. 3G provision is restricted to the main towns only.

Broadband Statistics (source: OFCOM)

<table>
<thead>
<tr>
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<th>Lines Receiving less than 2 Mbps</th>
<th>NGB Availability</th>
<th>Take-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>South of Scotland</td>
<td>15% (&gt;20,000)</td>
<td>0%</td>
<td>60%</td>
</tr>
<tr>
<td>Scotland</td>
<td>13%</td>
<td>41%</td>
<td>65%</td>
</tr>
<tr>
<td>UK</td>
<td>14%</td>
<td>58%</td>
<td>68%</td>
</tr>
</tbody>
</table>

SoSA estimate that more than 16,000 premises within the region do not have a fixed line connection – to receive NGB these premises would require either a fixed line installed or use an alternate technology such as wireless or satellite.

Part of the reason for a lack of NGB infrastructure in the region can be attributed to its rural nature – the entire area is classed as rural or remote rural with only four settlements with a population greater than 10,000. The region covers an area of over 11,300 km² and has a total population of 261,000 with an average population density of 23 per sq km, around one-third of the Scottish average and one-tenth of the UK figure. With only three exchanges in the region planned for upgrade to NGB standards, the case for intervention due to market failure is clear.

In an ideal world, broadband services would be delivered in the same manner as other public utilities such as gas, water and electricity. This would entail a single supplier at the infrastructure layer, with competition at the service delivery layer. However, in the UK broadband market, we have competition at both infrastructure and service delivery layers. This results in a dilution of economic return for infrastructure providers, particularly in rural areas, leading to a lack of investment from those providers as the returns are at best minimal.

Take-up of broadband services in the South of Scotland is lower than the Scottish average. Part of the reason for this is down to availability of service in the most rural areas. Also, the region is characterised by an above average aging population, smaller than average proportion of working age population, and productivity and income levels about 10% below national averages.

Local Projects – South of Scotland

The South of Scotland Next Generation Broadband Project has set a vision that will transform the region into a place that will:

- Be a dynamic and successful place to choose to live and work
- Be much more successful both in offering opportunity and incentive for more young people to stay in the area, while also attracting new residents
• Play and be seen to play a more central role in the national economy through modernisation and diversification of the industrial and commercial base, and the region’s contribution to Scotland’s economy
• Be seen and thought of through economic success and through greater co-operation across borders, as part of a continuous UK rather than as an extremity of Scotland, and a dynamic and outward looking region playing its full part in an enlarged Europe.
• Enable residents to enjoy a better quality of life, including better opportunities to realise their full potential, economically and in other respects, with better education and training and more job choice in modern and trend-setting businesses.

Improving the Broadband Infrastructure across the South of Scotland has been identified as the single most significant enabler to unlock that vision and the Project sets ambitious goals to deliver:
• The European target of at least 30Mbps service to all by 2020, with at least 50% of the population enjoying access to 100Mbps
• The UK Government targets of Next Generation Broadband (NGB) access to at least 90% of the population by 2015 and at least the UK minimum connection of 2Mbps to the remaining 10%
• The Scottish Government target of Next Generation Access for all by 2020 with significant progress by 2015 and an increase in uptake to at least the UK average
• A regional ambition for 4G mobile coverage to at least 90% of the regional population by 2017, and critically
• A network infrastructure that can support public sector network requirements for current contract renewal by 2014.

A number of requirements have been set out for this project as follows:
• It is envisaged that a mix of technologies including fibre optic, wireless and satellite will be used to deliver the objectives of SoSA across the region
• The solution must offer an open access network with a choice of internet service providers available to businesses and consumers at the point of access and at a cost comparable to urban areas
• The solution must be defined as ‘future-proof’ and have the potential to keep up with developing applications
• It is envisaged that an initial phased roll out plan will be developed that will be flexible according to various factors including demand and budgets
• Public sector network services will operate on the infrastructure and will be offered as an anchor tenant at a cost comparable to urban areas
• The supplier will create a set of standard specifications to enable small community led network builds connected to the main infrastructure
• The installation of infrastructure within new commercial and/or residential developments will be included within the planning and road construction consent process
• A threshold will be placed on income earned from revenue in line with State Aid requirements and an agreed proportion of the amount above the threshold will be used to further upgrade and develop the network as technology advances
• A monitoring and evaluation framework will be developed and completed throughout the project.

The first phase of the Project is planned to run through to 2015/16 with an estimated total cost of £120 million (not including areas planned for upgrade by BT). This investment enables 100% coverage (a mixture of NGB and minimum 2Mbps) across the region with an assumption of FTTC to market towns and distribution point communities covering 94% of the population with the remaining 6% on a wireless, mobile or satellite system.

A key component of the project is the Demand Stimulation Strategy. This demonstrates how the three key sectors (business, residential and public sector) will be engaged to make maximum use of the investment. The Project has set aside up to £400,000 over the lifetime of the project in order to achieve this.