Introduction

BT Scotland is pleased to respond to the Infrastructure and Capital Investment Committee’s (ICIC) inquiry into broadband infrastructure in Scotland. High speed internet is an essential business enabler, crucial to the future of the Scottish economy and the sustainability of rural communities across Scotland. This inquiry is timely as the Scottish Government finalises its components of a national broadband plan before the end of the year and produces a detailed roll-out plan with funding proposals by the end of March 2012.

BT is currently engaged in detailed dialogue with Highlands & Islands Enterprise regarding its BDUK tender for a major NGA programme across the HIE geography. The South of Scotland Alliance (Scottish Borders Council & Dumfries and Galloway Council) is also shortly due to tender for a major NGA programme for its region. This means that there will be multiple, large-scale NGA programmes in Scotland requiring the Scottish Government to provide a plan for the rest of the country where the market is currently unable to deliver.

In this response BT Scotland has outlined its current investment plan for broadband and Next Generation Access (NGA) in Scotland. Given the broad remit for the inquiry outlined by the committee, BT has also sought to answer the following questions:

- Given Scotland has near 100% broadband coverage how can availability, speeds and uptake be improved across the country?
- What is the best way to roll-out NGA across Scotland and what are the potential pitfalls?
- What is the best way for the Scottish Government/public sector to help fund NGA projects in Scotland and exploit the funding made available from the recent spending review and from UK and EU sources?
- Are the Scottish Government objectives in its Digital Ambition Strategy achievable?
- What lessons can be learned from other parts of the UK in terms of digital infrastructure investment?

**BT Broadband services – a quick guide**

<table>
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<th>Service</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>21CN</strong></td>
<td>21st Century Network - BT’s network transformation programme</td>
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<tr>
<td><strong>ADSL2+</strong></td>
<td>Asymmetric Digital Subscriber Line 2+ is a copper broadband technology, offering speeds ‘up to’ 20Mb</td>
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<tr>
<td><strong>Gap Funding</strong></td>
<td>Funding to establish NGB infrastructure where it is not economically viable for commercial organisations to implement independently. BT’s preferred model is to invest in partnership with the Public Sector, adhering to state aid rules i.e. ‘clawback’.</td>
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<tr>
<td><strong>Mixed Economy</strong></td>
<td>A mix of Broadband technologies that complement NGB where NGB might not be available as the preferred option.</td>
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<tr>
<td><strong>NGB/NGA</strong></td>
<td>Next Generation Broadband/Access, and encompasses Fibre to the Cabinet (FTTC), Fibre to the Premises (FTTP).</td>
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<tr>
<td><strong>PSN</strong></td>
<td>Public Sector Network refers to services delivered over a network infrastructure that operates according to the same standards. The aim is to reduce duplication, improve interconnection and reduce the cost of network services for the Public Sector.</td>
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<tr>
<td><strong>SFBB</strong></td>
<td>Superfast Broadband</td>
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<tr>
<td><strong>WBC</strong></td>
<td>Wholesale Broadband Connect [BT] – A broadband IP access service that can provide faster broadband speeds. This is a BT Wholesale product which uses ADSL2+ technology.</td>
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Summary and key recommendations

- It is vital that whatever infrastructure is used, it is consistent, universal and the services are affordable and available to all. Large scale projects would provide economies of scale and provide best value for consumers.
- Large scale projects would also ensure future proofing and sustainability of investment and consistency in technologies.
- Infrastructure put in place should be open to all communication providers.
- Dependent on the strategy, investment and funding levels and state aid approvals, it should be possible to achieve virtually 100% coverage of businesses and homes in Scotland. This will almost certainly need to be a “mixed economy” approach, with fibre being deployed as close to the premises as possible for the vast majority and other technologies (fixed line, satellite, mobile, wireless etc) where required.
- BT has recommended that the Scottish Government should procure for a strategic private sector partner to invest in Scotland. A partner that is willing to jointly invest, alongside the Scottish Government, in a new, high speed ‘open access’ infrastructure, bringing significant retail competition and choice to the citizens and businesses of Scotland.
- Despite investment, some parts of the UK, and large parts of Scotland, are still not part of the digital journey and Scotland must continue to make a robust case for high speed networks and ensure that it avoids playing catch-up with the rest of the UK.

Q) Given Scotland has near 100% broadband coverage how can availability, speeds and uptake be improved across the country?

Scotland has 1,070 telephone exchanges, including 400 of the smallest in the UK, serving a population of five million. Every exchange is connected to broadband, save 21 in the Western Isles served by a public wireless broadband project.

In very real terms, BT’s investment in this network has assured that the UK, including Scotland, has now one of the most competitive broadband markets in the world.

Over the past five years, the Scottish Government has partnered BT to improve Scotland’s communications and broadband infrastructure. 36 small Scottish exchanges have been upgraded from their current BT Exchange Activate service, which has a speed restriction of 0.5Mb/s. Consumers are now able to experience much faster speeds of up to 8Mb/s and choose from a wide range of service providers. A further 52 Exchange Activate exchanges have been provided with additional broadband ports. However there are still 83 ‘Exchange Activate’ exchanges in Scotland which only offer a half megabit broadband service.

BT’s investment in superfast broadband

BT is already investing in superfast broadband in Scotland with over 372,000 residential and businesses premises passed by spring 2012. This will deliver download speeds of up to 40Mbps (soon to be doubled to up to 80Mbps) to a substantial number of businesses and households through an existing number of national and local service providers.

BT believes that it will only be commercially viable to bring high speed broadband to two thirds of the UK population by 2014. Given the Scottish geography the figure is likely to be less than two thirds in Scotland.

There will clearly be areas of Scotland which will not be covered within this current plan, Intervention needs to be targeted to meet the gap between our own investment case and the real cost of deploying Superfast Broadband to these challenging areas.

Uptake

Ofcom’s recent Communications Market Report shows that 61 per cent of people say they subscribe to a broadband service in Scotland, still below the UK average of 74 per cent, with the gap widening by three percentage points in the last twelve months.
For many years, BT Scotland has taken a pro-active approach towards tackling digital exclusion through a number of innovative projects which have been developed by working with partners and listening to what disadvantaged groups require.

A long-term collaboration has seen projects launched in Glasgow, Edinburgh and Caithness to help local people access the internet, learn new skills and find out how technology can improve their lives. The projects introduce basic ICT skills, for work and social use, to groups such as the elderly, unemployed and people with disabilities or those who require additional support.

It is essential that any major infrastructure deployment, as part of the Scottish Government’s roll-out plan, is accompanied by intense demand stimulation activity.

This is based on the premise that unless the infrastructure is used by a majority of consumers and businesses, the investment – whether it is public, private or a combination of both – will be wasted. Demand stimulation activity needs to target businesses (large and small), communities (particularly those who are economically and socially challenged), and specific geographic areas that are deemed to be of significant economic impact.

Q) What is the best way to roll-out NGA across Scotland and what are the potential pitfalls?

The Scottish Government should procure for a strategic private sector partner to invest in Scotland. A partner that is willing to jointly invest, alongside the Scottish Government, in a new, high speed ‘open access’ infrastructure, bringing significant retail competition and choice to the citizens and businesses of Scotland.

The Scottish Government should tender for a new fibre infrastructure offering ‘open access’ to the UK retail Communication Provider market, which brings with it competition, choice, ‘longevity’ and ‘viability’, ensuring it is a legacy for generations to come. The Scottish Government should contract with a credible, experienced partner which has a track record of investing in Scotland and which will continue to invest to develop fibre based infrastructure.

The jointly funded infrastructure programme should be executed by a joint steering board consisting of key stakeholders within the public and private sector. The infrastructure created by this programme should be owned and managed by the private sector partner and any sub-contractors engaged.

Demand stimulation, with the aim of ensuring that as many consumers and businesses as possible take up and fully benefit from the new superfast broadband services should be at the heart of any infrastructure programme, so that Scotland becomes a truly digitally included nation.

Q) What is the best way for the Scottish Government/public sector to help fund NGA projects in Scotland and exploit the funding made available from the recent spending review and from UK and EU sources?

As mentioned earlier we recommend the Scottish Government tender for a private sector partner to jointly invest in Scotland to augment the public sector funds that are available. A private sector partner which will commit to invest a significant amount and will work in partnership with the Scottish Government to ensure the levels of ‘take up’ are achieved.

Successful ‘Gap funded’ models which have been developed in other parts of the UK including Northern Ireland (jointly funded by BT and DETI) and in Cornwall and the Isles of Scilly (funded by BT and ERDF)

The private sector partner and The Scottish Government should jointly invest in a demand stimulation programme to ensure the success of their joint investment.
Q) Are the Scottish Government objectives in its Digital Ambition Strategy achievable?

BT Scotland fully supports the Scottish Government’s objectives. However, the target of ‘significantly’ improving access to faster broadband speeds across Scotland by 2015 needs to be more specific and defined in order to judge progress.

The target of improving Scotland’s broadband uptake so that it is at or above the UK average by 2013 is also extremely challenging. Scotland is currently 13 points behind the average UK uptake of 74%. Any publicly procured infrastructure projects should be accompanied by a demand stimulation strategy in order to boost uptake. The recently announced Digital Participation Charter is a welcome step in the right direction but the Digital Ambition Strategy should prioritise this across its work streams.

Q) What lessons can be learned from other parts of the UK in terms of digital infrastructure investment?

BT is currently working in partnership with DETI in Northern Ireland and with Cornwall Council on major NGA projects in these parts of the UK.

The Northern Ireland Next Generation Broadband Project – current investment is now at £52 Million + (contract originally for £48 Million). The Next Generation Broadband Project has seen BT invest close to £30 million in this initiative, with a further £16.5 million coming from the Department of Enterprise Trade and Investment (DETI) and the EU under the ERDF Competitiveness Programme of which £10.5 million was invested in rural areas and £6 million in urban areas. Also £1.5million has been invested from the Department of Agriculture and Rural Development (DARD) under the EU ERA Rural Development Programme. This has since attracted a further investment from DARD, DETI and BT totalling some £4 million.

The Superfast Cornwall £132 Million investment included up to £53.5 million Convergence programme funding, the largest ever single European investment in broadband infrastructure and BT investing up to £78.5 million. This project is well underway the partnership with Cornwall Council anticipates that the £132m investment programme will create up to 4000 jobs, safeguard a further 2,000 and help attract new business to the area. Between 80-90% of Cornish businesses and homes will have access to superfast broadband by 2014.

BT Scotland would be happy to facilitate a shared learning visit for the ICIC if desired for either project.