Introduction

Ensuring high quality digital connectivity across all of Scotland is a priority for the Scottish Government (SG). We have set out an ambition for the availability of world class digital connectivity across Scotland, and we recognise that improved mobile connectivity is an integral part of delivering that ambition. SG has been working with the Scottish Futures Trust (SFT) to determine how we can most effectively support industry to deliver a 5G-ready infrastructure across all of Scotland.

The UK mobile network operators (MNOs) have demonstrated a clear commitment to maximise coverage, not least by investing substantial sums in rolling out 4G networks across the country. Significant progress is being made towards meeting 4G coverage obligations and the 90% geographic coverage agreement. Nevertheless, we collectively recognise that once commercial deployment is complete, coverage gaps will still remain in some of the most rural and remote areas.

SG also recognises that the costs of deploying new infrastructure to address mobile notspots is often prohibitively high, particularly when set against the limited revenues that can be generated where there are relatively few users.

Objective

SG and the mobile operators are committed to working together on a range of measures aimed at improving mobile coverage across Scotland.

We will identify where the gaps will be after commercial rollout and jointly design technology solutions and business models that will allow services to be delivered by operators in a sustainable way.

This action plan sets out tangible steps that will be taken by SG, alongside public sector partners, to support that ambition. These will aim to take costs out of operators’ business models in non-commercial areas and will range from interventions such as business rates relief through to more direct interventions, such as investing in the construction of new or enhanced infrastructure.

It also sets out the steps that operators will take; to help design and shape these interventions and to make them as effective as possible. A key action is for operators to share future network deployment plans, to enable SG action to be targeted on the areas that it is most needed. We are jointly committed to building on the positive industry engagement to date and learning the lessons from failed projects elsewhere. Public sector interventions to improve mobile coverage in Scotland will be the product of genuine collaboration between industry and the Scottish Government.
Strategy Development: Partnership Approach

SG is committed to using any and all devolved powers to help overcome barriers to investment. We will also continue to make representations to the UK Government and Ofcom to ensure that the UK-wide legislative and regulatory environment supports mobile deployment in Scotland.

SG works closely with the Digital team at SFT, who provide technical, practical and policy support. This has involved developing and delivering technology/commercial pilots in conjunction with industry (such as the Coll project); leading our analysis of potential infill requirements; and engaging with Home Office and others to understand, and maximise, the impact of the Emergency Services Mobile Communications Programme (ESMCP) in Scotland.

Highlands and Islands Enterprise (HIE) is another key partner, liaising with operators and planning authorities to ensure that commercial rollout across the Highlands and Islands proceeds as smoothly as possible. HIE’s work capitalises on local contacts and knowledge of some of Scotland’s most remote and rural areas. This type of engagement is also taking place with local authorities elsewhere in Scotland, including those in the south of Scotland.

Key areas of activity & collaboration

SG is ready to intervene to make it easier for operators to deploy new infrastructure and deliver services to mobile notspots. We are committed to developing a package of measures, some of which could focus on reducing operating costs; others on capital funding requirements. All of these will be designed in collaboration with industry, recognising that operators cannot be expected to deliver services in non-commercial areas without the support of public sector partners.

There are 7 key areas of immediate action:

1. Non-Domestic Rates

Non-domestic rates are often cited by industry as bearing on the viability of marginal sites – estimated in many cases as around a third of the opex of a new mast.

From 1 April 2016, SG has offered non-domestic rates relief for new masts in non-commercial areas, initially as a pilot scheme on parts of Arran and Cairngorm.¹ ² ³

This is being taken forward as a pilot at this stage, pending forthcoming availability of data on future coverage, which will enable definition of a Scotland-wide intervention area. Our intention is to widen the scheme across Scotland if the pilot is successful, and if an intervention area can be accurately defined.

¹ http://www.legislation.gov.uk/ssi/2016/122/contents/made
³ http://www.gov.scot/Topics/Economy/digital/Publications/NDR-maps
The MNOs commit to sharing with SG (either directly with SG or via Ofcom, and under a Non-Disclosure Agreement if appropriate) their future network planning information by the end of 2016, and regularly updated information thereafter. This will enable SG to target a range of interventions on specified non-commercial areas.4

2. Planning

The Scottish planning system is established as having a key role to play in supporting SG’s wider digital connectivity ambitions. In 2014, we legislated to extend permitted development rights for telecommunications infrastructure, removing the need to make a planning application in a wider number of cases.

However the industry has called on us to go even further. In recognition of this, we have commissioned and published new research which, amongst other things, contains evidence-based recommendations on the scope for further legislative change. **SG is committed to further reform of the planning system and later this year we will consult on detailed legislative proposals for the further relaxation of planning controls to support commercial investment in digital connectivity. We will also work in collaboration with the industry and other key stakeholders to prepare new online advice on planning for telecommunications.**

3. Public Sector Assets

We recognise that improved access by the telecoms industry to public sector assets has the potential to be a valuable part of a package of measures to improve the commercial viability of network deployment. It also offers another opportunity by which the public sector can accelerate mast development through means other than direct subsidy.

We are exploring a number of opportunities in this area – for example, around land owned by the Crofters Commission and Forestry Commission in rural areas. We are also engaging with the Cabinet Office to learn from its experience of having opened up public sector assets in England. While a ratecard system for valuation of assets may be useful, we want to ensure that the driver for any initiative in this area is improved coverage rather than revenue generation.

We are also looking at how we could provide industry with access to the ePIMS Lite property database that holds high-level property information on the estate portfolios of local authorities, NHS Boards and the Emergency Services. This data could help MNOs plan network deployment by identifying potential new sites.

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4 This data will be made available to the Scottish Government solely for use in its policy development. Mobile coverage data for public use is available at http://maps.ofcom.org.uk/check-coverage.
SG will engage with industry and other stakeholders to understand how industry “asks” and priorities in this area can be taken forward to align with SG’s digital priorities (short, medium and longer term).

4. Innovative Mobile Solutions

We are keen to trial new ways of extending mobile coverage across Scotland. In 2015, SFT successfully implemented a pilot project on Coll, in partnership with Vodafone, which has delivered mobile services to the island for the first time and is testing the concept of a community-owned mobile mast. Vodafone is the core tenant, currently delivering services to the Coll community, whilst other MNOs are now engaged with us with view to using the mast to provide services. The mast is open to all operators but, unlike the UK Government's Mobile infrastructure Project, there is no requirement for all four MNOs to deliver services.

Additional projects in Arran, Tiree and Cairngorm are currently being developed and SG is keen to take these forward with industry partners now. The MNOs will consider their potential involvement as an anchor tenant for these projects and discuss these opportunities with SG/SFT.

Furthermore, SG is keen to position Scotland as a testbed for new technologies and business models; making connections with our thriving academic community and supporting operators’ research and development agendas. We are already in discussion with EE as to the development of a project in Scotland and we keen to explore with industry how any opportunities could be maximised.

The MNOs will seek opportunities to locate in Scotland technology or other trials which may be in the pipeline, and discuss any such opportunities with SG/SFT.

5. Emergency Services Mobile Communications Programme (ESMCP)

The Extended Area Services (EAS) project within the wider ESMCP will deliver new publicly funded mobile infrastructure in areas where the emergency services need coverage but which fall outside commercial rollout. SG is determined to maximise the wider coverage benefits of this new infrastructure; and to ensure that, where possible, these new masts are future-proofed and open to all operators.

SG and SFT are working in collaboration with ESMCP to look at how we could future proof new masts being built as part of EAS, where it is considered that wider benefits (such as coverage to nearby premises or areas with high tourism footfall) could be delivered. This might allow us to fund enhancements to the specification of masts, where necessary, making them taller or more robust to enable the sharing of the site by multiple operators. We have assessed proposed EAS sites on an individual basis to identify opportunities for future proofing and SG welcomes further dialogue with the MNOs on this issue.
When details of new EAS infrastructure becomes known, the MNOs will assess the viability of using these sites in their network deployment.

6. Mobile Infill

Current industry investment in 4G infrastructure rollout is expected to significantly improve coverage across Scotland, however we recognise that there will remain some areas where it will not prove commercially viable to deliver services.

SG is keen to explore the potential for a national 4G infill initiative – focused on delivering new masts and enhanced backhaul connectivity.

For SG, a pre-requisite of any such scheme is the need for it to be designed in conjunction with industry; also taking into account lessons we have learned though our previous experience with the Coll project and from the UK Government’s Mobile Infrastructure Project.

With regards to the latter, SG recognises that, in some circumstances, requiring all MNOs to deliver a service from each site may affect the overall viability of a proposed site. We would therefore propose that any new infrastructure subsidised by SG and its partners would not have such a requirement but perhaps be taken forward with one or two MNOs initially. However sites would remain fully open access and available to all MNOs on equivalent terms.

SG is committed to working with industry to develop an infill proposal in a way that enables MNOs to deliver services on as close to a cost-neutral basis as possible.

Potential options might include:

- Publicly owned masts;
- Community-owned masts;
- Joint Venture arrangements; or,
- Private sector delivery – but with public subsidy via grant or another funding mechanism.

SG sees development of this project as being vital to extending coverage; but we realise that it will only succeed if designed in partnership with industry. We, therefore, see collaboration on this project as a key early action.

7. 5G-ready infrastructure

SG continues to collaborate with SFT to scope what infrastructure will be required over the longer term to support world class digital connectivity in future; and how the public sector can most effectively intervene to stimulate and accelerate the necessary private investment.
This will include gaining a clearer understanding of what additional rural backhaul capacity may be required in Scotland to underpin longer term investment by the MNOs and also the capacity requirements to make Scotland “5G-ready”.

SG and SFT will jointly hold a workshop later this year to explore, with industry, these issues.

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