

Commercial, Operational and Technical Standards Project for Independent Local Access Networks (The COTS Project)

DRAFT Principles and Process (revised Sep 2009)

Introduction

Around the world there are now numerous examples of successful local and community-led broadband infrastructure projects. Many of these have extended the availability of broadband services to locations that the market alone would have not reached, or would have taken much longer to deploy to. The success of these projects has come from their ability to develop successful local partnerships, galvanise local community support and develop innovative business models. Looking forward, it is likely that similar projects could play a key role in delivering next generation broadband to parts of the UK.

Whilst the development of local and community-led broadband projects was supported by both the Caio and the interim Digital Britain reports, both highlighted the need to ensure that this did not lead to the emergence of a disjointed 'patchwork' of networks that resulted in consumers and businesses being offered a sub-optimal range of services at the retail level (a concern that was highlighted in the BSG report '*Models for efficient and effective public sector intervention in next generation broadband access networks*¹').

In the final Digital Britain Report the government announced a Final Third Project to ensure next generation broadband services are available to at least 90% of homes by 2017. To support this, a Next Generation Fund will be established, funded by a 50p per month levy on all copper lines.

With the market anticipated to serve around two thirds of homes with next generation broadband, this leaves up to a third of homes that could be served with support from the Next Generation Fund. However, as funding will be contestable, it is also likely that the infrastructure will be provided by a range of players, including local and community-led organisations. This in turn could mean that the number of independent local open access networks built by local and community-led projects, increases.

With the fund to begin in 2010, and the procurement body to be in place by the end of 2009, this creates a larger and more urgent challenge to ensure that a disjointed patchwork quilt of networks does not emerge, and that all consumers will have access to a range of services at the retail level. Government, regulator, industry and other stakeholders have all indicated that this is an issue that needs to be addressed, and is currently being examined in other markets.

In order to mitigate this risk a degree of standardisation and harmonisation is required at both the technical and process levels. This would aim to reduce costs for scale retail service

¹ www.broadbanduk.org/psi

providers, for whom cost minimisation is a central concern. However, any standardisation and harmonisation should not inhibit the scope for grass roots innovation at the local level.

In addressing this issue there is an opportunity to create a win-win-win situation where network operators are able to provide a choice of services to consumers and maximise wholesale revenue potential; retail service providers benefit from a larger addressable market; and consumers and small businesses benefit from a wider range of services.

Objective

The objective of this initiative is to work with representatives of independent local and community-led broadband projects, national network operators and major ISPs to develop an efficient standardised approach to enable service providers to offer retail services over local or community-led open networks to end users. As a result of this initiative consumers and small businesses should be able to access a wide choice of service providers, regardless of how the underlying infrastructure is either provisioned or owned. It should be in the interests of all local or community-led projects to be compliant with this approach.

Initial discussions have suggested that it is possible that this standardised approach would be implemented through the establishment of a new entity, which would function as a type of clearing house, providing a single interface between network providers and service providers. However, the initiative should be agnostic about the end solution until a clearer view is gathered through the process.

Principles

The following principles should guide this process:

- The aim of this initiative is to promote inclusion, accessibility and consumer choice
- The approach should seek to minimise cost and complexity for both network operators and service providers
- The approach should maximise the opportunity for innovation at the local level, and the retail level
- The approach should seek to standardise and aggregate service elements where necessary to minimise cost and prevent geographic segmentation
- The approach should where possible build on existing work and standards
- The approach should be agnostic regarding the underlying access infrastructure
- The approach should develop a solution that is proportionate

Elements

The following elements have been identified as the core issues, which the agreed approach will need to address. As far as possible, these elements reflect existing work undertaken by Ofcom and the industry (particularly elements 1 and 2), with additional areas for consideration set out where necessary.

1. Wholesale product set (Active and Passive)
 - Product design process
 - Product capabilities and the level of ISP control of these
 - Support for variety of CPE
2. Operational, Administrative and Maintenance (OAM) standards
 - Provisioning and install arrangements
 - Fault reporting/ management, including coordination of engineer visits
 - Other technical, operational and commercial interfaces
 - Customer relationship management
3. Harmonised commercial and contractual arrangements
 - Contracts, incl. SLAs, SLGs and QoS
 - Migration and switching rules
 - Network development over the investment lifecycle
 - Pricing policy and settlement (receipts and payments)
4. Following work to further scope the requirements in each of these areas, the initiative would then move on to develop solutions, including through standards bodies where appropriate, and consider the implementation of the solutions.

Process

Initial discussions and scoping work have taken the process so far. To take this initiative forward it will be necessary for all relevant stakeholders to discuss and agree how the issues set out above should be handled and what the key requirements of any solution would be.

We envisage the following steps:

1. Establish a project steering group to develop the three core elements (product set, OAMs and commercial and contractual arrangements). The steering group would need to include representatives from the following organisations:
 - Local and community–led broadband projects and network operators (prospective INCA members)
 - National network operators and ISPs
 - Other relevant industry stakeholders (e.g. equipment vendors)
 - Standards bodies

- National, regional and local government
 - Ofcom
 - Consumer groups
2. Establish INCA (Independent Networks Cooperative Association) to represent local and community-led broadband projects on the steering group, and develop a common position (this would be done concurrently with step 2).
 3. Further scoping work establishing detailed requirements for each of the three core elements. This work would build on existing standards, such as the ALA framework set out by Ofcom and the subsequent standards being developed through bodies such as NICC, Metro Ethernet Forum, the Telemanagement Forum and the Broadband Forum.

This work would be directed by the steering group, with working groups developing the requirements in particular areas and external support being considered by stakeholders where required.

4. Concurrent iterative exercise to brainstorm possible solutions, to further inform requirements. Such an exercise would assist in establishing the requirements in each of the areas.
5. Once all of the elements have been agreed, the requirements for any solution would become clear. The process will then move to identify the most appropriate solution, and consider the implementation of the solution. This step in the process would need to be carefully considered by the steering group once the requirements had been fully developed.
6. Where necessary, the requirements would be handed over to industry standards bodies, to assist in creating the technical specifications to support the identified solution.

Resources

- Discussions with a range of industry players, government and Ofcom suggest there is widespread agreement that this issue needs addressing, and a willingness to participate in an open and transparent process facilitated by a neutral third party.
- The BSG will support the process by providing secretariat support (organise and host meetings, draft minutes etc.) and chairing meetings.
- Stakeholders will provide staff time for steering group activities, overseeing the project.
- However, additional technical support may be required to drive the detailed work on the three core elements. Should this be the case, stakeholders will need to take a view on how best to support the work.

- Where new technical standards emerge as requirements, it is anticipated that standards bodies such as NICC, Broadband Forum, MEF, TMF and IEEE would develop these as part of their ongoing activities.
- CBN with support from BIS will establish INCA as a single body to represent local and community-led broadband projects on the steering group.

Timescales

Work is progressing on a number of local access network projects across the UK and there is clearly a need to complete this project as quickly as possible. However, having spoken to various organisations with experience in this field we do not underestimate the amount of work and time required to do this on an open, transparent and inclusive basis with the effective engagement of all relevant stakeholders.

Below are some indicative timescales. We will ask the steering group to review these and develop a more detailed timeline when it first convenes.

