BSG Meeting
The COTS Project

Thursday 03 September 2009

Venue: Hull City Council, Guildhall, Hull

Notes

1.   Welcome and introduction

Malcolm Taylor (MT) welcomed those present, introduced himself, and explained how the meeting would work.

2.   The COTS Project – stakeholder perspectives

Antony Walker (AW), BSG
AW introduced the COTS Project and the context for it. In the future, we expect to see a different commercial landscape, with new entrants building out next generation access networks, particularly in the final third areas, but not exclusively. New models for network investment are being driven by partnerships between communities, the public sector and a range of commercial players, providing the capacity for innovation and harnessing local resources; this is particularly prevalent in low-density areas.

These networks are likely to be very different in terms of their scale, structure, scope and technology – it is unlikely that a single model will emerge. While the debate has tended to focus on the investment challenge and getting the infrastructure in the ground, the provision of services over that infrastructure is just as challenging.

The concern for these networks is that, even where they have been funded and built, they have often struggled to attract service providers. Their small scale means that service providers are faced with high back-office costs per customer when they try to access these customers. This creates a lose-lose-lose scenario: consumers have less (or no) choice of service provider; service providers cannot access potential customers; and network providers fail to optimise their potential revenues. In the worse case scenario this can make the underlying business model unsustainable.

This is not an issue that can be solved on an individual project basis, but requires a collective and collaborative effort on the part of all stakeholders to resolve.

The objective of the COTS Project is:

> *"To work with representatives of independent local and community–led broadband projects, national network operators and major ISPs to develop a low cost standardised approach to enable a broad range of service providers to offer retail services over local or community-led open networks to end users.*

As a result consumers and small businesses should be able to access a wide choice of service providers, regardless of how the underlying infrastructure is provisioned or owned."

The COTS Project is not trying to address all issues related to new independent access networks, such as network funding, architectures and so on – although these are important issues, they are being addressed in other fora such as INCA.

While the current scenario is a lose-lose-lose, the COTS objective should promote a win-win-win scenario: consumers have access to a choice of service providers; service providers obtain access to potential customers; and network operators maximise their revenues.

There has been an increasing level of discussion and interest in this issue within the industry over the last 18 months, and in increasing willingness to engage in finding a solution. The go-ahead for Digital Region, and the development of the USC and the Final Third Project have provided a renewed impetus into the issue. A consensus has developed around the problem that needs to be addressed; however, there is less of a consensus at this stage about the possible solutions.

The focus for the COTS Project will be in two parts: defining the set of requirements; and then considering the implementation of those requirements. Initially, the requirements will be developed in the three areas set out: the wholesale product set; operation, administrative and maintenance standards; and commercial and contractual arrangements. The implementation work is less clear at this stage: this will be guided by the requirements that are developed, and the BSG is agnostics towards the likely solution at this time.

The COTS Project has set out the following guiding principles:

- 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.

A range of stakeholder groups from across the breadth of the industry are engaged in this work, and ensuring that they are engaged and represented throughout the process will be important for ensuring that the project has the consensus required from across the industry.

Going forward, the BSG intends to create a steering group to take the work forward, open to any stakeholder. This will first meet on 21 September. We are clear that those involved on the steering group will need to be active participants in the work. From this, we intend to create working groups to undertake the specific requirements drafting around the three elements previously identified. These groups will then report back to the steering group, who will come back to the wider industry.

We have set out an indicative 12 month timescale, which we will refine depending on the work required. However, consensus will take time to develop, particularly as many stakeholders are only just starting to think through the issues and implications for their businesses of this activity. The steering group will take a more definitive view on the timescales once the work is underway.

The COTS project needs to be a collaborative process that requires the active positive engagement of all stakeholders. We aim to make the process as open and transparent as possible for all participants, and are keen to ensure that all those who have a stake in this project are engaged in the work going forward.

Guy Jarvis (GJ), Fibrestream
GJ reflected the view taken at the morning's Colloquium that, in terms of its importance, next generation broadband should be considered alongside other utilities.

Regarding the creation of standards for next generation networks, GJ would like to see them kept as simple as possible, and be open and freely available to all in the industry.

Huw Saunders (HS), KCOM
HS suggested that before we begin discussing standards it is important to understand what we are trying to achieve, and what the end game looks like. This is particularly true in a next generation broadband environment, where service delivery could look different to that of today.

The COTS Project is based on a number of assumptions that it is worth drawing out and testing.

- A patchwork quilt will mean a diminution of competition between service providers on any given network.
- Less competition means reduced consumer benefits.
- Technical standards are the main barrier to more competition.
- The 'Hull problem' is either attributable to 'standards issues' or KCOM not playing fair.
- A 'one size fits all' approach is benefit maximising and proportionate.
- Open access will result in multiple 'integrated retail service providers'.

The experience of KCOM, which offers wholesale products supported by Ofcom, suggests that technical standards are not the challenge, but that the issue is one of scale and commercial decisions. This is borne out by experiences elsewhere.

- Most 'open access' networks don't seem to be able to deliver sustainable multiple service provider competition.
- Economic scale is a bigger barrier to entry than anything else.
- However, a too prescriptive approach to standards will stifle innovation.
- Systems and processes are probably more of a problem than interface standards, and much more likely to diverge.
- Even if standards converge, will large ISPs want to deal with multiple access providers – are they willing to bear the overhead of managing many commercial relationships and establishing physical interconnectivity?

Given this, what are the alternatives? What questions should we be considering?

- Do we need integrated competition? How different will NGA be to the current market.
- Can we separate 'connectivity' (the fat pipe) from 'value add' (voice, hosted services etc) and have separate billing relationships?
- If this is not the preferred outcome, what do we need to do beyond 'standardisation' to ensure effective ISP-based competition?
- Aggregation – what is the role for intermediaries, market-based or imposed through regulation? There are a number of companies that sit between ISPs and BT – is it possible for a commercial aggregator to emerge from the market?

- What are the commercial consequences? How would any solution impact on the cost of retail services to consumers?

HS' involvement in South Yorkshire Digital Region has further demonstrated the challenge in attracting the interest of national ISPs on to a network. ISPs will only deliver services on a network if it makes commercial sense to them: for this to succeed, it is important to understand what ISPs need.

Steve Spillane (SS), CBN

SS discussed the formation and activity of the Independent networks Co-operative Association (INCA). INCA came about through the Caio Review, and the subsequent adoption of the review's recommendations in the Digital Britain Interim Report; funding for INCA was set out in the final Digital Britain Report.

SS discussed the cycle of technology investment, explaining that most projects within INCA are investing in innovative, higher-risk technologies compared to investments that the major players in the industry are likely to want to make. One of the key challenges facing these networks is how they interconnect on three levels: physical network interconnection; service interconnection; and business interconnection.

Service interconnection, between the b2b interfaces, is at the heart of an effective interconnect regime. However, the UK has a history of regulating for, and encouraging, physical network interconnection to the detriment of effective service interconnection.

INCA proposes to offer services to its members at these three levels of interconnection. Business services will include project development support, consultancy, business model development, and representation and advocacy amongst policymakers and the wider industry. At the level of service interconnection, INCA will offer bulk aggregation agreements, peering and interconnect arrangements and BSS/OSS standards. INCA will offer technical standards and APIs, and support regarding network topology and design, at the level of network interconnection.

The benefits of adopting these common standards are many: greater ability to scale networks; ease of use; reduced risk; lower cost solution development; lower design costs; less reinventing the wheel; and simpler platforms for innovation.

In order to achieve this, INCA will need to work with the wider industry, in its broadest sense, including key players such as the BBC.

INCA are currently defining the membership categories and governance arrangements for INCA; this will be published when final funding arrangements are agreed with BIS. INCA's membership will be drawn from a broad range of sectors:

- Project developers
- Central, regional and local government
- Service providers
- Network wholesalers
- Middle mile providers
- Traditional utilities
- Developers
- Business community
- Equipment suppliers

INCA's services are based on a different view of the market in a next generation environment than exists today. While today's market is based on ISP providing consumers access to Internet-based services, in a next generation market other service providers, particularly content providers, could provide services direct to consumers on the independent local networks, with ISPs providing access to wider Internet services alongside these non-traditional service providers. This patchwork of networks would be sewn together by JON.

The next steps for INCA are to complete the funding negotiations with BIS, to finalise the governance arrangements and the membership offerings, and to develop the INCA services.

CBN will also be running the Next Gen 09 conference on 16-17 November in Yorkshire, with the support of Yorkshire Forward.

An attendee asked whether JON will be a national network, and whether funding had been secured for it. SS clarified that JON is not a national network, but a series of regional PoPs for interconnection. Funding is still being negotiated; it is possible that JON could be independent of INCA.

Lindsey Annison (LA), NextGenUs
LA reiterated support for GJ's earlier comment, reflecting that she considered broadband as important as air, and NGA particularly so.

However, currently consumers are being misled by communications providers. There needs to be a definition of NGA, and associated standards for marketing and products to ensure that consumers can trust in the products and understand what they are buying. Clear maintenance and fault reporting standards are also required, to protect consumers and ensure that problems with their services are addressed quickly.

As a consumer, LA simply wants a dumb pipe with no services. Consumers should be bale to make their own choices about the services they wish to consume. For example, in rural areas connections to the NHS, and other public services, are very important given the distances that need to be travelled.

A further concern regarding the misleading information that currently exists about broadband services is that they are misleading policymakers too, particularly when contributing to research and studies. Consumers are aware of when they are not receiving what they paid for, and this needs to be addressed.

It would be useful to have further clarity as to what COTS is addressing, where this fits with INCA, what role it has in relation to statutory or regulatory obligations, and what impact it has on public funding for NGA networks. It will also be important for the standards to be written in plain English, in order to be accessible to the wider industry.

Moving forward, community groups are keen to engage with the COTS project. The Write To Reply model was a very effective tool for engagement through the Digital Britain Report process, and something similar for COTS would be very useful.

COTS standards must work for a parish of 400 households and Hull, or else explain why this can't happen. More generally, the industry must work together or the Digital Britain agenda will fail very quickly.

3. Discussion

One attendee suggested that a checklist of requirements, covering all stakeholders, for how to get to an NGA future would be a sensible place to start. It would then be possible to identify what COTS would be addressing, and where other activity would also need to be undertaken. The attendee also supported LA's point regarding the need for clarification of the role of COTS and its links to government policy and public funds for broadband networks. This would also feed in to discussions concerning sustainability of community networks.

HS commented that there are different models for competition in an NGA world, and in order to create a checklist you would first need to understand what sort of future market environment you are trying to create. The current competitive market is an outcome of the existing regulatory regime – it is not necessarily the case that consumers will want this to be replicated in an NGA environment.

AW felt that the checklist approach would be useful, particularly with regards to scoping out the bigger picture of where we are trying to get to. AW also recognized HS's concern regarding service delivery in an NGA world. Although COTS is likely to reflect the integrated service approach of current broadband services, this should not preclude other services being delivered around this framework. It is clear that this is a disruptive period for the market, and it is likely that we will see new business models and new methods of service delivery.

Andreas Pappas (AP) from Ofcom reflected that across the UK consumers have benefitted from competition, although this hasn't necessarily worked in Hull. In the future, Ofcom may begin examining micro-networks as geographic market monopolies, and so the COTS activity is very important as a potential remedy/enabler of competition. Finally, ALA is built on many of the principles guiding COTS, and Ofcom is keen for ALA to play an important role in developing the COTS framework.

AW agreed with AP. In response to points made by LA in her talk, AW felt that the issue of broadband marketing is starting to come to the fore as part of the government's development of a universal service commitment at 2Mbps. The government will come under pressure to ensure that a 2Mbps service really is a 2Mbps service for consumers. Regarding whether community networks would be compelled to follow COTS, the answer is they wouldn't, but that he would like to see the output as something that would work for a community network, so that it would be in their interests to follow the COTS framework. He agreed that there was a need to quickly get down to actually doing this work.

In response to a question about the initial work of the BSG and the early definitions of broadband, MT suggested that he was not convinced that the 2Mbps target would achieve a great deal, and that there was considerable work to do to achieve a greater ambition.

An attendee offered his thoughts on these issues. As a builder of small fibre rollouts, he needs to be able to offer DSL-type services over fibre as a starting point for consumers. Consumers are concerned with brands, and therefore national ISPs, but these are very difficult to attract on to sub-scale networks. Reflecting on the JON proposal of regional PoPs, he felt the key issues would be physical interconnection back into ISPs' networks. There is light at the end of the tunnel, he felt, as in Scandinavia there are municipal networks with multiple service providers operating on the network. However, at present in the UK national ISPs are not yet interested in dealing with this issue. He felt that COTS may struggle to make a difference unless there is some statutory or regulatory support and backing for it, particularly within the challenging timescales that have been set, as the motivations of the key stakeholders to work constructively towards a solution are not present.

AW felt that, in fact, the motivations of the key stakeholders to address this issue are building, and a big change has been notable over the last 12-18 months. For national ISPs, the fact that, when aggregated, these independent networks could be a significant proportion of the market is becoming a driver. Ofcom are becoming more interested in this area, as it is required to build on the progress that ALA made. Furthermore, BIS are providing a policy driver for addressing this issue through the Final Third Project.

An attendee reflected on his previous experiences with standards work, and asked who would have responsibility for drafting and agreeing the specifications that would be given to the standards groups. He was also concerned as to how COTS and INCA would work together in practice, and how the final versions of documents would be agreed. His concern is that, from his experience, dealing with the political and commercial interests that diverge during and, particularly, at the end of the process are more time-consuming than actually doing the work.

AW agreed with the identification of this issue, and said that governance would be a key issue for the steering group to consider early on. It will also be necessary to view how any consensus develops and emerges over time.

An attendee reflected that the actual services under discussion here are voice, data and tv services. In two of these three services, there are very competitive markets, particularly within the delivery of business services. COTS should attempt to replicate this competitive environment on community networks.

It was suggested that the LLU framework from current generation broadband provides a good proxy for COTS activity, particularly the processes the service provider community engaged in. AW agreed, and highlighted that BSG are talking to ISPs about how to take this work forward.

A participant asked whether we should define NGA before trying to build out NGA networks. HS suggested that Ofcom's definition, in its NGA consultations, are quite comprehensive and a good starting point. Another participant considered that NGA is connectivity that surpasses that currently available in the market. It was pointed out that the FCC has yet to come up with a definition of broadband, despite working on one since President Obama's election.

Another participant felt that COTS shouldn't be defining anything technological or topological regarding community networks. AW agreed; COTS is intended to be technology agnostic. MT felt it would be more productive to spend time addressing the challenges facing emerging networks, rather than defining broadband and NGA.

4. Wrap-up and next steps

The next step for this work will be the creation of a steering group. The group is intended to be an open forum, open to anyone to participate in. However, members of the steering group will be expected to participate fully and contribute to the work. BSG will circulate further details; those who wish to participate should contact the BSG secretariat.