House of Commons
Welsh Affairs Committee

Digital Inclusion in Wales: follow-up

Oral and written evidence

Tuesday 9 March 2010

Mr Chris Smedley, Chief Executive Officer, Geo Networks Ltd
Mr Jon James, Director of Broadband, Virgin Media
Ms Ann Beynon OBE, Director BT Wales and Dr Tim Whitley, Group Strategy Director, BT
Mr Gareth Davies, Director of Competition Policy, Competition Group, and Mr Rhodri Williams Director, Wales, Ofcom

Ordered by The House of Commons to be printed 9 March 2010

Oral evidence

Taken before the Welsh Affairs Committee

on Tuesday 9 March 2010

Members present
Dr Hywel Francis, in the Chair

Mrs Siân C James	Hywel Williams
Mr David Jones	Mark Williams
Alun Michael	

Witness: **Mr Chris Smedley**, Chief Executive Officer, Geo Networks Ltd, gave evidence.

Q1 Chair: Welcome to this single evidence session on digital inclusion, a follow-up. Thank you for coming along. Could you introduce yourself, please?
Mr Smedley: Christopher Smedley. I am the Chief Executive of FibreSpeed.
Chair: Perhaps I could ask Mr Alun Michael to begin.

Q2 Alun Michael: Open access is obviously a key issue, given that it was a requirement of European funding, and it is interesting to ask what it means in practice. Is the fibre that you have installed linking the business parks in North Wales available and accessible to individual consumers and small businesses? If so, how?
Mr Smedley: The fibre is available. If you will recall from the previous evidence that I gave to the Committee, the structure of FibreSpeed is a business which only engages other service providers. FibreSpeed itself does not transact with either consumers or small businesses, but the service provider community that it sells to does, so, indirectly, yes. We find that the people who lease, if you like, dark fibre, who take that input and then put the equipment on it to make the data network work, tend to be people with quite a lot of technical competence. It is unusual to find consumers saying, "I'll take my own fibre and buy the equipment between different parts of the network." For service providers, however, that is quite a different question. Service providers are quite a big group. They can go from another telecoms business all the way through to a small IT retailer, anybody who has that technical competence. Those are the kinds of organisations that in our experience find it very useful to be able to take, if you like, the underlying fibre product, as opposed to the service where somebody else has done those two things together. Absolutely, it is the condition of both the state aid approvals that were given in Europe but also in the way we contracted with the Welsh Assembly Government to build the network that open access to the underlying infrastructure would always be provided. That is done in parallel with FibreSpeed also offering those services itself. Really it is a simple question of choice. Service providers can come along and take the infrastructure themselves—which is not just the fibre, it is the space in the exchanges to put their equipment, the services, like power and environmental management which they cannot provide because they are our facilities—but all of those can be put on one side and then they can put the equipment on to it themselves and then run their services. That tends to scale very well for a lot of the service providers.

Q3 Alun Michael: To what extent is take-up happening across North Wales? In terms of users being able to be linked into that network, how wide does that go with different service providers? How many are taking up that option and how wide does that opportunity spread then?
Mr Smedley: We are still learning an awful lot about FibreSpeed. The network was only launched operationally live at the beginning of Q2 last year, at the beginning of April, so we are just coming up to the first anniversary. Over that time we have signed up 17 different service providers to transact with different parts of the market. They use a variety of different inputs from FibreSpeed and sell a variety of different services, from quite low-level 2Mb/10Mb services to small businesses, some on the business parks and some nearby. Some take wireless solutions in order to be able to connect the last mile—because obviously FibreSpeed's network is running through the business parks and a few extensions that we have done since. The take-up has been very pleasing. We have seen a lot of usage out of those business parks which have tenants.

Q4 Alun Michael: Going off the business parks, can you put some numbers on the extent of take-up? You mentioned 17 service providers. What type of service providers are they?
Mr Smedley: It is a combination. Of those 17, we have six or seven very active service providers and some which are newer businesses that are still learning about this. Of those service providers, they have then transacted with around 50 different businesses that are on the network now taking service. Some of those businesses in turn resell their services. For example, there are companies using wireless services to connect into halls of residence, where people can use internet services in student

accommodation. Other areas outside the business parks have been connected with either FibreSpeed or the service provider putting in new infrastructure and new fibre to connect just off the network. It is always a challenge. We see this within my group, where we run another business across the UK, as getting off the network and into the access layer is where the real challenges lie.

Q5 Alun Michael: In terms of consumers, at the end of the chain, how many people are able to make use of the system?
Mr Smedley: For the consumer product that is being sold by some of the service providers, I would say probably several hundred different people, but that is a little bit of an educated guess. One of the problems with running a wholesale business like this is that you do not automatically see through what the usage is of the network. Some are just simply by big businesses.

Q6 Alun Michael: How far does that reach off the physical fibre network geographically?
Mr Smedley: It is tough to get really much more than a couple of miles either side, if you like, of the network using current products. We are considering a number of things to try to improve this, including using some of BT's Openreach products, because some of the price points around those have changed quite a lot recently. Connecting into their network as an access layer and allowing other people to take services on ours is something else we are considering as well.

Q7 Chair: Could I thank you for the briefing note you sent us. You say something about the cost of FibreSpeed. How is that cost distributed amongst the different funders?
Mr Smedley: This is the cost of the initial build. It is a combination of both capital and operational funding within that, but a very approximate level of funding would be about 80% coming from European funding, with matched funding by the Welsh Assembly Government. There is roughly a 50:50 split: some out of the Welsh Assembly Government, its own pocket, and the rest from Geo Networks, which is the other company that I run, which helped to set up the business with the Welsh Assembly Government.

Q8 Hywel Williams: You have already explained to Mr Michael about the sorts of end-users, the sorts of consumers that have taken advantage and the service providers. Who do you think has had most advantage out of this? Do you have any idea of the shape and nature of the market? It clearly is growing, but which way is it going?
Mr Smedley: So far we have seen that the very largest contracts, if you like, have some big businesses, particularly in the public sector, but also some of the other big contracts that you would see use a network like this. A big optical fibre network is very well suited to large enterprise or to broadcasting networks or to mobile networks. Within really the time we have put this evidence together, nine months

of operation, a lot of those contracts are still tied up from prior to FibreSpeed's existence. We have to remind ourselves that we have not been going at this for very long and when we get to speak to people and say, "Look, you really should come onto the FibreSpeed network," it is quite early days for them, they are in the middle of a contractual arrangement with somebody else. Notwithstanding that, we can see a huge amount of interest from that, because clearly the network is much newer, it is much more capable for their requirements than some of their other solutions at the moment, so we expect over time that we will see some of those big users such as ISPs, Mobile businesses and others come on to the asset. From what we have seen so far, it has been very interesting. It has been very much led by local businesses, some of which did not even exist before FibreSpeed was created. We have really taken the opportunity to say, "Because we can get our hands on the fibre and on these access inputs, we are going to go and approach local businesses ourselves." Small IT resellers who have not done this kind of work have been the first to step up to it, which is why, as I was saying, there are 17 different service providers. We have seen multiplicity in the market and we have seen people then take those inputs and learn how to do it. The only other comment I would make about watching the market evolve is that there are not that many businesses in the UK that operate the FibreSpeed model of open access networking. Back to the previous question, for us open access networking is that there should always be a passive or infrastructure element to that offer. It is not enough simply to say the telecoms business will define the services you are going to use over the network and then wholesale them to you and call it open access. For us it is a new model. It is not, if you like, the old vertically integrated telecom stack of services being provided by one organisation, but it does create a need for a lot of learning and really a voyage of discovery by a lot of new businesses that come to take up those offers. If there is one thing we are seeing about the market, it is the development of technical competence by a lot of those service providers. There are a few things they probably did not realise about what it took to run a network like this which they are very quickly learning within a year now.

Q9 Hywel Williams: As the Member for Caernarfon I am interested in the take-up in my own constituency and also those in Porthmadog and Pwllheli. Can you update us as to what is happening?
Mr Smedley: The take-up has been good across the network, because the services that have been initially taken have been people taking the entire network all the way over into the West as well. I remember you asking the question last time I was here about the extension of the network down towards Porthmadog. That is something that we have agreed now with the Welsh Assembly Government, which is being rolled out this year as well. We expect to see those service providers engage local businesses, in particular in those areas, over the course of the rest of the year now.

Hywel Williams: Thank you.

Q10 Mark Williams: You touched on my question when you were talking about the evolving nature of this, in terms of the development of the infrastructure now in place, and your assertion that mobile and wireless technologies are the best solution to deal with some of the problems in some of the most remote and rural areas. Would the suggestions that you lay out in your evidence, such as investing in a passive network of towers, be likely to make significant difference to the problems of "not spots". You have talked about your 17 service providers and the opportunities for businesses. There is a big absence out there that was highlighted by a report last week from the Wales Rural Observatory expressing concerns. How are you going to advance this?

Mr Smedley: We do not have all the answers to this one, because, again, we are dealing with a part of the market here which is underserved at the moment and we are looking for answers as much as anybody. It seems to us that there is a notable lack of infrastructure to provide some of these services. Clearly there are just two choices: you can either go to the fixed world to provide particularly broadband for residents within some of these not-spot areas or you can go to wireless. One is much slower and more expensive than the other and yet there are technologies now, not just those operated by the big mobile players but also those that are coming through with smaller businesses that have WiMax licences. If you could facilitate their entry into the market by putting up not just the towers but then extensions of either fibre or microwave links back from those towers into the core FibreSpeed network and then from there all the way back into Manchester—which is very much an evolving digital hub, if you like, for the North of the UK where the content can be provided—we can see a route whereby the network that we have built originally through all the business parks can evolve into a very useful competitive backhaul network throughout North Wales and from which these new services can be provided. If you could provide a tower covering useful geographies for people to come in and put their equipment upon—and, again, if it was a great commercial opportunity people would be doing it already, so some element of intervention is likely to be required, but we would recommend that that, like FibreSpeed, is done at the passive and enduring infrastructure level and other people then come and put the other investments over the top.

Q11 Mark Williams: Turning to domestic consumers, what would make your network attractive for retail providers looking to sell generation packages to domestic consumers?

Mr Smedley: Very simple, high quality, well-priced, wholesale propositions. The model that we see evolving in other parts of the world—particularly in the Netherlands, where they are doing this, but also via public intervention in countries like Australia and New Zealand—is exactly following the FibreSpeed model. It is like public sector intervention into new roads, or railways, in order that people can come and use them. If you speak to the service providers who engage with the retail markets—which within our business we know very well because we run a lot of their traffic over our UK-wide network at Geo Networks—they would be looking for similar inputs to the ones that they use today under the local loop unbundling regime, where they lease copper from BT Openreach, go into their exchanges, put their equipment there, and then ask companies like Geo (as it is in the rest of the UK) to come and connect into those exchanges with their optical fibre and then take the services from there. We see a very straight equivalent of a fibre leasing model or a wireless infrastructure leasing model, depending on which solution you are adopting, where the service providers can make those investments again and lease inputs of infrastructure in the same way that they do in the local loop unbundling world. They will want a good price for that, because they will have to be able to make money themselves per home, but, again, there are some pretty tried and trusted models now, even within the time since I last addressed the Committee. There are businesses like Reggefiber in the Netherlands, which is really worth looking at, since it is exactly like FibreSpeed, an open access provider of infrastructure, rolling out services in smaller towns, not just the cities across the Netherlands. I think they have nearly 200,000 users already online and they have been going for about 18 months. Those customers take fibre—and that is symmetrical 100Mb services.

Q12 Mark Williams: That is pretty crucial, as the Wales Rural Observatory report identified. I think you have mentioned it in your evidence as well, the roll-out to those smaller towns not diminishing in any way the effectiveness of what you are doing. Certainly in the areas that I represent the local economy and small businesses are critically dependent on this.

Mr Smedley: Yes. We think it is a sensible area for further investigation with the Government. We have made some proposals to them as to how this might work. We are continuing our dialogue with them to see if it is sensible to extend FibreSpeed's role as an infrastructure player in North Wales from just the core and the backhaul elements into these local access businesses as well. The market towns is absolutely where you start.

Q13 Mr David Jones: Mr Smedley, you have touched on this already this morning but in your submission to the Committee you argue very strongly for passive and active competition. Would you expand on this? Would you tell the Committee what are the principal advantages to you as a company and to what extent you would pass advantages on to your customer?

Mr Smedley: With any intervention in the market like this, where it is really a combination of both public and private investment, there has to be an

ability for the private company to be able to make a sensible return into that as well. One of the phenomena over the last few years is that it has been quite difficult for telecoms businesses to do that. One of the reasons for that is that they do not get very much contract term commitment from their customers. One of the real advantages of the passive model and the engagement of service providers is that you do get that. At one level, to your investors, you look a bit like a property company. Our average contract term across our group is just under 10 years, and that is almost like a utility kind of model as opposed to the traditional telecoms model. One of the advantages is that it works. Our business has been going for six years now and it has generated good returns for its investors because we are able to plan into the future, but, also, you can hit those key price points that the service providers need because you know that you are going to have their business for the next few years. A good example is that whenever you are connecting off the network there are a lot of capital costs. If you try to recover all of those over a short-term contract, it is not very attractive to the service provider who is taking the services. If you extend it, you can.

Q14 Mr David Jones: BT argue that the version of open access which applies to FibreSpeed is the minimum needed to comply with state aid rules and no more. They argue that open access should be defined by the extent to which it "fully supports a wide range of downstream providers to maximise the benefits for consumers and businesses". To what extent would you say that FibreSpeed meets that definition of open access?

Mr Smedley: I have certainly never had any service provider tell us that we do not. If there is anything that anybody wants out there that they are not getting from us, I would love to hear from them. I find it difficult to think of a level of input that is easier or more scaleable for a business to make long-term money from than access to the underlying infrastructure on a cost-oriented basis. As I say, I have just not seen any evidence that there is anybody that we are engaging with at the moment that has an issue with what FibreSpeed provides.

Q15 Mrs James: You have already mentioned dark fibres. BT announced at the end of last month that they will open up their ducts and dark fibres, a move that you talked about in your evidence. How do you see duct access affecting the development and how will that affect high-speed broadband?

Mr Smedley: We were delighted about that announcement. It is something that we have been pushing for for quite some time. Within submissions to Ofcom, for example, in their super-fast broadband review a couple of years ago, we argued very strongly that there has never really been very much evidence of the telecoms industry evolving without the ability to take a passive product from BT. Now 10 years ago, that was the access to the copper. I think in most people's view now we are reaching the end of the useful lifespan of the old copper voice network and we are coming to a point where it needs upgrading. For us it is pretty obvious that you are going to have to pull the copper out of a lot of those ducts where possible, or take it off the pole systems and put fibre in its place. Again, given it is such an expensive task, whether it is private or public investment it must make sense that you re-use existing infrastructure as much as possible. BT's announcement that it would now welcome this is something that is not that surprising to us, because we have been involved in a lot of industry working groups lobbying hard for this and looking at the ways in which it might happen. LLU became very effective, albeit it was about two years too late or it had run two years after BT was rolling out its equivalent products, but it became very successful because the industry developed a set of usable working products, and within two or three years companies like TalkTalk and Sky and Orange were rolling their services out across the UK. For us, it is very, very welcome but there is an enormous amount of detail now to be worked through. If I went to BT Openreach today—which I did about six months ago—and said, "Please can I have access to your duct?" I would not be able to buy it and there is no reference offer and there are no processes for working out how you are going to get into the BT network and how you pull the cable through. But the fact that the people running the company are saying they want to do it is I think very welcome.

Q16 Mrs James: In a sense, they argued that it needs to be reciprocal. If they open up their ducts and their systems, obviously they are looking to other companies to offer them a reciprocal agreement. At what point do you think FibreSpeed's infrastructure will be open to that?

Mr Smedley: It could be today. If BT were to come to us and say, "We need to pull cable through your system," then we would be happy to look at whether we could do that. One of the other things about duct access over which there is a question, and again it is a detail to be worked through within the industry, is that it is genuinely needed when nobody else has pulled a high-fibre count cable through their system. Clearly if somebody already has just done that, it is not an enormously good investment, in the round, to look at that and do it all over again and duplicate it. For us, the two things that go hand in hand are: allow access to ducts but at the same time if you have already done it yourself or whoever does it first—because there could be lots of people saying they want to do it with BT—make sure that they then lease fibre from that cable to the rest of the industry on an open access basis. For us, it is whoever really goes first, whether it is BT or ourselves. With FibreSpeed, we would happily accommodate that wherever we could, but, equally, if they (BT) want some fibre on the network then it would be much better just to go and take that product which is sitting there already.

Q17 Alun Michael: You referred there to reference pricing on access to ducting. Coming back to the question of the availability of your fibre system across North Wales, is there a reference pricing publicly available there? Do you have a catalogue or a pricing manual that is publicly available or available to businesses?

Mr Smedley: Yes, but we ask people to sign up to some confidentiality terms and to the framework agreement for a service provider before we release the price book to them. We do not put it out on our website straightaway and say, "These are all the prices." The reference offer that is available is for fibre, not for duct.

Q18 Alun Michael: It is fibre I was referring to in my question. I am trying to square that with the idea of information being publicly available, given that it is publicly funded. Are you saying that people virtually have to become customers before they get access to the information?

Mr Smedley: No. To be honest, it is something that we discussed on a few occasions with the Government. It is not really a nervousness about saying to people that what we are doing is in some way mysterious, but when a business comes and makes a big investment in your products, which all of our service providers are doing in order then to engage the retail market, it is not entirely helpful that the entire retail market understands their cost base. For them, they make investments into that themselves and they need an opportunity to make a fair return, so it is really just something that we have done as a matter of commercial common sense rather than any particular view that it should be information that is not available.

Q19 Alun Michael: Perhaps I am being slightly dull, but presumably the access to the wholesale product from BT would be in the public domain, but it still seems to me that you are saying that that information is not publicly available as far as your business is concerned.

Mr Smedley: Today it is not, but, again, it is not because we are trying to hide anything there. We are really just trying to work with our service providers in the best way.

Q20 Alun Michael: It is information that could be provided to the Committee?

Mr Smedley: It could be, yes. Absolutely. Equally, we would be happy to reconsider that if somebody said to us, "Look, it is really a bit of a problem that you are not making this information available to the public, it is in the public interest to do that." I think that what the public really cares about and what the businesses which are using FibreSpeed care about are the offers made to them by the service providers, because those are the people they are buying from.

Q21 Alun Michael: Based on the experience with FibreSpeed, what would you say about the challenge to the Government and, indeed, local government to

harmonise their digital inclusion goals with market-based solutions? What sort of contribution do you think you could make to digital inclusion, particularly in North Wales?

Mr Smedley: We touched on it before. The starting point has to be to bring those people who have no access at all online, or those who have very, very poor internet access. We would highly commend the proposals that we have put to the Government about wireless infrastructure and developing product sets with WiMax and mobile providers to start solving some of those problems, which if they were easily fixed by today's technologies would have been presumably fixed.

Q22 Hywel Williams: One of the more intriguing and interesting aspects of all of this as far as I am concerned is the funding partnership between yourselves and the Welsh Assembly Government and also using European funding. I assume that you would say that it has been very successful, but perhaps I could check that with you. Also, have there been any particular or unusual obligations on you because of the funding structure?

Mr Smedley: There are a few things you have to be quite careful about. State aid approvals are done with what are called intensity ratios about the use of capital—which you have to watch very carefully to make sure that you are making returns from those investments, because otherwise it looks like too heavy a form of state intervention. If you are used to running a purely commercial enterprise in the private sector, that is not something you are usually having to look at quite so carefully. The other unusual element, if you like, of FibreSpeed is the engagement with service provider only, as opposed to the ability to go to the retail market. We often find people call us up and say, "How do we get on to the FibreSpeed network?" and then we have to, with a very even hand, let all the service providers know that there is some demand and ask them to go and address that—which again is a little different.

Q23 Mark Williams: In your opinion, should the Next Generation fund be targeted in order to maximise value for money without distorting competition?

Mr Smedley: Clearly within the *Digital Britain* report there were broadly going to be two sources of funding. One was towards helping the universal obligation, which was an aspired-for 2Mb. I would argue with any source of funding going in there that 2Mb might be the wrong number, because it is quite difficult for a series of wireless technologies always to guarantee that. I would argue that the baseline, which has been much criticised, needs to be a bit lower, because then wireless technologies could be part of the solution. The Next Generation Fund, as I understand it, is that which will be established through the proposed 50 pence a month taxation or levy on everybody's telephone bills. That kind of funding, we would argue, is best put where the market has failed—so have a look at those parts of the economy that could best benefit. Our suggestion

would be that the concept of these fibre-to-the-premise open access infrastructures, using Wales as an example, in market towns and some of the other areas that are unlikely to benefit from private investment would be a great place to start.

Q24 Mr David Jones: In your submission you say that "further investment in FibreSpeed is expected to meet high demands that are beyond the current network reach". What level of additional investment would you be seeking?
Mr Smedley: It is a little bit of a "how long is a piece of string" question as to how big the project might be, but if you look at some of the overseas examples of what it costs to roll out new fibre infrastructure, there is some good evidence again out of the Netherlands but also in some of the Asian fibre networks that have been rolled out. Some countries have these networks covering more than half the population already, so there are some good proof points there about what it takes to roll out fibre networks in either urban or semi-urban or in high-rise buildings and different things. You have to look very carefully at that because the numbers change quite radically depending on where you are going, but a good rule of thumb is about €800 of capital expenditure per home passed, and that number can be reduced we think by up to one-third if you are able to re-use existing infrastructure. Really it then depends on how many people you are trying to cover—this is for a fibre-to-the-premise solution—and how many people live within a particular market town that you are trying to cover. Really the next question then is how far your ambitions go to roll out that sort of infrastructure in the immediate area, outside of a dense market town, because then you really have to fall straight back into the point system

if you are going to be able to get an economic roll out as well. But that is a good rule of thumb in looking at these sorts of numbers, between €500 to €800 per home passed.

Q25 Mr David Jones: Do you have any specific proposals at present?
Mr Smedley: Yes, we have modelled a few things, a few areas in Wales in terms of parts of our business and other market towns in other rural areas across the UK, really just to test those. This is quite a fast-moving space at the moment, as I think people realise, that optical fibre infrastructure connecting premises is an important area of future investment. It is also very much about the design of fibre use and fibre network. We would recommend using point-to-point technology, which is the kind of fibre roll-out that is used for large businesses, because it allows full symmetry in the network. A lot of the problems with today's networks, even if you do have broadband at home, is that the speeds are all about what you pull towards you and sending the other way is very poor. That is okay for some uses but very poor for home-workers, for business usage, for video networking, and really for a lot of services that we would define as true Next Generation Access (NGA) (as in what our children will be using these networks for over the next 30 or 40 years). The fibre design being point-to-point, making sure the networks that are built are fully symmetrical, we think are some of the key design criteria that have to be put into these new networks.
Chair: Thank you very much for your evidence this morning. If you feel there are other points that we may not have covered, we would be very pleased to receive an additional memorandum from you.[1]

----

[1]   Ev 25

Witness: **Mr Jon James**, Director of Broadband, Virgin Media, gave evidence.

Q26 Chair: Good morning. For the record, could you introduce yourself, please?
Mr James: Good morning. I am Jon James. I run the broadband business for Virgin Media, which encompasses our fibre-optic broadband offering and also a smaller DSL platform, both of which are available in Wales—our fibre-optic network specifically being heavily built into Swansea, Cardiff and Newport.

Q27 Alun Michael: Looking first at those areas where you do have that strong presence which you have just mentioned, what is the availability of your network, your fibre, to service providers such as mobile telephone companies, other users who are serving the wider public in terms of broadband connectivity?
Mr James: We are a retailer, not a wholesaler. If your question relates to wholesale access to our platform, that is not something we offer. If your question relates more to the way in which our networks can be

used by third parties on what is called an over-the-top basis (for example, if you are offering a mobile service or delivering content), then we actually have pitched ourselves as providing the fastest pipe on which to do iPlayer or to use other wireless devices in the home. We are definitely agnostic about how the customer chooses to connect to our network.

Q28 Alun Michael: You do not make that offer as a business decision, but have you been pressed at all to allow open access to your systems?
Mr James: There has been over the years a steady if not intense level of debate about open access to cable, and our position has been consistent: that we have invested many billions over the years in building that network, that we are very focused on getting a return from that investment as it stands and that we are certainly not from a commercial point of view convinced that there is a business case for opening up that network.

Q29 Alun Michael: Do you feel under any pressure in that regard?
Mr James: No.

Q30 Alun Michael: Not from a business point of view but from a regulatory point of view?
Mr James: Both from the Caio report and through to subsequent statements by the regulators, specifically Ofcom, there is a wide acceptance that we have made that investment in our network and we are not in a dominant position, we are not in a position of market power, and, as such, it is appropriate certainly for the moment for us to continue to exploit that and to seek to make a return on that investment as per our original business plan.

Q31 Chair: Do you have any plans to expand your cable network in Wales?
Mr James: We do. At this stage, they are relatively organic, so we are building in response to demand from customers in those principal towns. We announced 12 months ago or so that we were planning to extend our network across the UK by some 500,000 homes over the next couple of years. We will have built approximately 300,000 of those by the end of this year, and are planning to build a further 100,000 or so next year, some of which will be in Wales. We are also looking to expand our network in, if you like, more non-traditional means, so we are interested in exploring the use of third party duct, the use of aerial infrastructure, for example, to enable us to reach those areas in Wales and elsewhere where the economics today make it prohibitive. We are very excited about the opportunity that those alternative sources of distribution allow for us to take our fibre-optic offering more widely.

Q32 Mr David Jones: Mr James, what conditions would you say need to be put in place in order to maintain competition in the Welsh telecoms market?
Mr James: When we spoke last I made the point about public sector intervention. One principle we would like to establish would be that public sector intervention should be very carefully targeted, such that it runs no material risk of interfering with potential commercial investment. As we sit here with potential long investment cycles, looking at difficult investment cases, the uncertainty of believing that there may be regulatory interventions in certain locations can be very disruptive to those plans. For example, South Yorkshire, which is a network being built with RDA (Regional Development Agencies) funding which directly overbuilds our network, we regard as a waste of public money and certainly a significant disincentive to commercial operators like ourselves to invest further. The principal point I would like to underline would be to avoid those sorts of interventions. However, there will be clearly many areas of Wales where there is no meaningful risk of that kind of disincentive. We regard it as a challenging area. I think we would be very keen to ensure that whatever regime was in place in Wales to provide, for example, subsidy, was aligned to the rest of the UK. The economics of this are such that it is

very difficult to operate multiple different regimes. On a similar theme, we would be very keen to encourage the pursuit of open standards for any networks that were built, particularly those being developed, for example, by the Broadband Stakeholder Group. Linking together different networks across the country is going to be an extremely difficult commercial challenge for any operator like ourselves who is probably going to be bringing the real muscle and financial investment to make the business cases work. To do so across different standards would probably be fatal.

Q33 Mrs James: Turning to Next Generation Access, in your evidence you stressed that public investment should be restricted to cases of market failure. How would you define market failure?
Mr James: We would define it probably in two different ways, depending on whether we were looking at the USC (Universal Service Commitment), the environmental or NGA. I think there would be a case for a public intervention market failure case in the case of NGA where there was no meaningful prospect of ourselves or other operators investing to provide super-fast speeds over, say, a five- to 10-year period. I think in the case of the Universal Service Commitment, I do not think we are very supportive of that principle. We see it as being at low risk of competing with the market, in the sense that the market failure there is less likely to be about competition issues and more about the failures of the infrastructure. I think we are much more sensitive to misidentifying market failure in the context of NGA than we are in the context of USC and the 2Mb proposal.

Q34 Mark Williams: Cable operators, and I think yourselves, from your submission, are going to be participating in the development of the framework for Next Generation Access in the final third. What do you see as the major obstacles, the major challenges, for delivering NGA to the final third?
Mr James: We do see them as very substantial. We were supportive in terms of the funding element—probably the largest iceberg. We are very supportive initially of the 50 pence approach. We have, however, been very concerned as that proposal has evolved towards its potential implementation framework that we now have a structure that for a number of reasons we think is unworkable in terms of the funding mechanism. One element of that, for example, is that it was originally intended to apply to telephone lines. That definition has subsequently been expanded to cover all forms of line, including broadband. That has the, I am sure, unintended consequence that there is the prospect of households being charged the levy twice. As yet we see no mechanism emerging from government that adequately addresses or manages that particular and very thorny issue. There is an attempt by government to impose the bad debt obligations associated with that on to ISPs (Internet Service Providers), which could be very substantial for large operators such as ourselves. It will also be subject to VAT. There are more issues than those, but we are

very concerned that that funding mechanism is unworkable and that there is no alternative currently on the table. As far as the process for allocating any funding that was identified, we see that as workable, and the critical obstacle to that is the establishment of the necessary framework authority to start to develop what will be an intricate and detailed exercise. Until we have a competent authority with strong leadership and strong competence in that area, then I think we will be unable to express real confidence one way or the other as to whether that is achievable. It is an inherently complex, albeit a solvable exercise, as each six digit postcode may have different infrastructure requirements and some may be NGA capable today and some may never be NGA capable without substantial investment of subsidy. There are difficult technologies that in different places would be appropriate, even in quite adjacent properties. Those are, we believe, solvable problems, but it does require a level of sophistication, in terms of competent authority possessed of an appropriate database and a structured approach to market, before there is a tender process there that we would look at and say, "That's going to work."

Q35 Hywel Williams: I would like to ask you about publication intervention, public funding and competition, which you referred to in your evidence and also in your answer to Mr Jones earlier on. Has public investment in Welsh broadband been consistent with maintaining competition? Do you have worries about what has happened so far?
Mr James: I do and I believe there have been examples of inconsistency in relation to funding broadband. As an operator we have been engaged in debates for a number of years over potential subsidies to drive deeper broadband penetration. They have taken different routes. There remains substantial uncertainty about what form public subsidy will take, at which level of government it will flow from and whether the solutions arrived upon will be workable. In the meantime, as I mentioned earlier with South Yorkshire, some of the examples of funding that have already taken place have been the ones that we regard as bad both for us as a commercial operator and a bad use of public funds. I think there is a mixed bag. We are optimistic about both the USC and, with some fingers crossed, the potential for the NGA fund if we can establish the competent authority quickly. I certainly think there are some more lessons to be learned as to the approaches that we do not think should be pursued again, notably the RDA example in South Yorkshire.

Q36 Hywel Williams: Is your view common across the industry or is it unique to yourselves?
Mr James: I think it is probably particularly acute for us. I cannot speak for BT. I would imagine it would be logical that they would have a similar view. Equally there are some in the industry who are not infrastructure owners. BT and ourselves clearly are the major network operators in the country. If I was a content provider like Sky or a virtual ISP like

TalkTalk then I would certainly be relatively pragmatic about the aversion to alternative infrastructure providers, as they did not compete with my core business. Equally, if I was Alcatel or a contractor potentially winning business from South Yorkshire, then I would be enthusiastic for as much public money to be ploughed into digging up streets and filling it with my expensive equipment as possible. You are likely to hear the most acute concern from infrastructure operators who are now facing potential competition from, if you like, publicly funded infrastructure in a very similar environment.

Q37 Hywel Williams: You have mentioned common standards across the piece and protocols and approaches. How do you fit those with the particular and perhaps peculiar requirements in Wales because of the nature of the infrastructure and, also, for the requirements around providing services in the medium of Welsh, for example? Are there peculiarities or particular aspects of delivering locally which are in conflict with your common standards?
Mr James: Not in principle. I think most of the infrastructures that you would or should be exploring in the Welsh topography would be ones that would be common technically elsewhere. There are no specifically local reasons why different standards should be applied in Wales to elsewhere. As I have said before I would strongly encourage you to pursue open standards—technical standards, that is—operational standards—wherever possible, on the basis that that will simply help to encourage commercial investment into that environment and the emergence of new services across these infrastructures as and when they are built.

Q38 Alun Michael: Can I take you back to what you were saying about the South Yorkshire model and your concerns there. There are other examples of investment. Obviously we were talking to Geo about the investment in North Wales in the evidence just before you came to speak to the Committee. There are also models, I believe, in Northern Ireland where an open access model has been a requirement, and similarly in Cornwall. That is the Objective 1 areas—apart from Merseyside, which I am not aware of—where there is a model of some public investment to a greater or lesser extent. Can you make a comparison of those different models from your perspective?
Mr James: Indeed, and I might also offer the example of some of the city nets in Scandinavia or Benelux, for example. Cornwall at the moment is a recently completed tender process rather than a functioning network. Certainly we are aware of some of the work in Northern Ireland, which is entirely positive. We have been supportive of what has happened in North Wales—as well as filling a gap that certainly from our point of view was unlikely to be filled by commercial endeavour and an operation which seems very happy to work with other competing providers, potentially competing providers, like ourselves, in joint tenders. Probably a

particular concern would be the belief that we could, for example, replicate some of these city net approaches in Scandinavia. Most of those businesses are now in fairly significant trouble because there was a fundamental challenge in competing from a very small scale, with all the fixed costs that operators like ourselves or BT had to face but on a much smaller footprint of customers, and unable to leverage any of the economies of scale that made these businesses able to offer their products at a competitive price point, combined with which they have tended to struggle as a result of some very local decisions, that have been made less about content and what is carried over the network and more about how the network operates, which create significant overheads for both content providers, service providers and other infrastructure providers who wish to interconnect with them in one form or another. It requires significant IT work, for example, to be able to connect to a city net that is not a divider, a completely open and well understood standard. As a result, those businesses are now struggling to be able to partner successfully with content or service providers elsewhere. I would be very keen, therefore, to encourage you to avoid that model. There are, I think, very few examples of that working successfully globally.

Chair: Thank you very much for your evidence this morning. Thank you for the early memorandum that you sent us. If you feel that there points we have not covered, then we would be very pleased to hear from you. Thank you very much.

Witnesses: **Ms Ann Beynon OBE**, Director BT Wales, and **Dr Tim Whitley,** Group Strategy Director, BT, gave evidence.

Q39 Chair: Good morning. Thank you for your memorandum. Could you introduce yourselves, please.

Ms Beynon: I am Ann Beynon. I am the BT Director for Wales.

Dr Whitley: I am Tim Whitley. I am the Group Strategy Director for BT.

Q40 Mark Williams: Could you give us an estimation of how many households in Wales still have no broadband access?

Ms Beynon: Across the UK we think there are about 140,000 that have problems with long lines. There will be a percentage of those in Wales. We could probably tell you on a local authority by local authority basis, but I would have thought it is a few thousand.[2]

Q41 Mark Williams: We would be very interested to have that breakdown at some point. What is the best way to respond to the problem of not spots in Wales? Should we be concentrating on promoting or subsidising fixed line solutions or would a mixture of other technologies be more appropriate?

Ms Beynon: Our view would be that fixed line solutions are preferable but there will be instances where niche technologies such as wireless and satellite would be required to supplement the fixed line solution. Fixed line is definitely the better solution going forward. A fixed line solution with open access is the ideal solution because that is what will allow NGA and, indeed, the addressing of not spots to happen most rapidly and benefit the maximum number of people.

Q42 Mrs James: You are currently rolling out a fibre-optic investment programme across the UK.

Ms Beynon: Yes.

Q43 Mrs James: However, the level of investment in Wales is limited to a handful of sites across South Wales. What analysis did you do of the current market for next generation broadband in Wales before deciding to limit your investment?

Ms Beynon: Obviously BT is investing £1.5 billion, which would give 40% of the UK super-fast broadband by 2012. That is cabinet based, fibre-to-the-cabinet technology, which will give people up to 30Mb download and incredibly improved upload speeds as well. I think that is the programme you are referring to. We were very proud that BT started that investment in Cardiff, in Whitchurch. The Whitchurch exchange and Muswell Hill in London were the two first exchanges to be enabled. The basis of deciding where we invest on a commercial basis is that we have a commercial model which is applied equally across the whole of the UK. It is to do with a number factors to do with the competition in the market-place and also to do with technical deployment issues in terms of the cost base. We have an absolutely consistent model, which we apply consistently across the whole of the UK. That is how we would determine the Welsh investment. There is significant investment in exchanges in Wales and we will be investing as well in North Wales in that technology.

Q44 Alun Michael: Ofcom has cautiously endorsed the flexible wholesale model and your right to set wholesale prices which reflect the commercial risk inherent in next generation investment. Obviously we have heard other providers talking about their investment in systems as well. Is the regulatory environment changing in a way which could result in positive outcomes from the point of view of choice, competition and expansion?

Ms Beynon: If we roll back a little bit and think about what has actually happened, back in the 1990s there was a belief that it would be possible to develop parallel infrastructure. There was a significant amount of investment by cable companies across the UK. You may remember it was done on a franchise

---

[2] Ev 24

basis on the regional territories and there was a franchise awarded for North Wales that was never taken up. However, it became apparent after a number of years that only about 50% of the UK was commercially capable of attracting that kind of investment, so we were left with 50% of the UK where there was not any real competition, and that was a problem. The solution that was evolved with the regulator was the open access model that BT operates on a wholesale basis. That was done in order that all parts of the UK, rural and urban, had equal competition, and that competition model has worked and obviously we have significantly reduced prices. We are able to provide the whole raft of pricing to all service providers—and we deal with large organisations. We service Carphone Warehouse, Sky, *et cetera*. We have created through this open access wholesale model a very, very competitive market in the UK, from which Wales benefits hugely.

Q45 Alun Michael: When you look at the other systems that are available—and we have heard about the developments in Northern Ireland and Cornwall and South Yorkshire, and we have seen the investment in North Wales in the dual system running down North Wales—does that fit with the almost universal provision that BT is providing? Obviously you are an incumbent and therefore have more infrastructure, more muscle and all the rest of it, but does open access mean the same thing for each of those providers?
Ms Beynon: No. It is difficult to talk about Cornwall, because that is a procurement in process, but in terms of Northern Ireland, they have chosen to go along with a model which supports the open access model I just described that BT operates. The situation there is that the Northern Ireland government is investing £18 million but BT is investing £30 million. That will allow every single business and person in Northern Ireland pretty much within reach to have access. It means that the public money being invested allows the maximum number of people in that territory to benefit. I am not sure that is the case elsewhere. It also means in Northern Ireland that any service provider on a retail basis can also buy that network and compete.

Q46 Alun Michael: If it is a part of the BT network, that is bound to be the case, but how does that compare, for instance, with the situation in North Wales and the South Yorkshire model that we were just hearing about?
Ms Beynon: It is not possible for all service providers to buy a product. A product that gives wholesale access product—to have access in the same way as you would to the BT network.
Dr Whitley: When you said that is to be expected because it is the BT network, that undervalues the model that has been created in the UK. It is very important to understand the role that BT Openreach play for UK telecoms. They do have, as you say, the

most significant infrastructure in the UK, but the agreement that was struck with the regulator and with other partners in the UK has led to the highest penetration of broadband, albeit that not spots are still a worry to us, of almost any major country on the planet, and actually a higher take-up of broadband than Japan—which is often cited as one of the wonder children of this area. Those benefits have not happened by accident; they have happened because the industry has created a model where Openreach provides, where there is an economic bottleneck (in the parlance of the industry), the infrastructure on a completely non-discretionary and equivalent basis to other players, and that is what leads to the massive amount of choice that we have. I think we heard Virgin reference the difficulty of providing service particularly to end-consumers—where, never mind, we have very low price points in the UK, so it is a very keenly priced product. Providing that service over a heterogeneous set of infrastructures is at best difficult and I think, in reality, is likely to be impossible. We are passionate believers that, in those areas where the natural economics of access suggest that that there is only room for one player in the market, Openreach is a good model providing that. It is easy to say, "You just have access to BT's copper and that is all that is there," but that massively underestimates the amount of investment that the industry as a whole has made in the systems, the process, the business hand-off processes, the maintenance processes, enabling a player, whether they are a large service provider like Sky or Carphone or Virgin, to order that copper line from BT Openreach or whether they are one of the 295 other smaller service providers who all play in a different niche within the market. This is a very, very rich environment. Perhaps reading into your question: "Are there things that could happen in terms of the regulatory environment or the way in which we take telecoms forward which could challenge that?" Absolutely, yes. Moving away to a model where publicly-funded infrastructure is created in an area that is fundamentally an economic bottleneck situation, as we have heard from Virgin, potentially compromises investment cases for other players, and if we do not have the sort of equivalent open access that BT provides then that profoundly will affect customer choice. It will mean that customers from around the place cannot just pick up a phone and order from Sky or Carphone irrespective of where they live. It would be dependent upon the particular infrastructure provider that they are using and the particular service providers that have managed to find a way of delivering service. There are dangers going forward. They are not there yet, but the future is quite uncertain in this area.

Q47 Alun Michael: When you refer there to equivalent open access, obviously there is not equivalent open access to Virgin's network in South Wales. Their representative explained that, but, as I understand it, Geo is providing equivalent open access to its systems. Is that correct?

Ms Beynon: There is no product, as far as we understand. Certainly, again, looking at the pricing issue, all the BT products are openly advertised on our website, as are terms and conditions, we are not able to see where there is an equivalent product and price point for that product. As far as we can see, there is no product that the whole of industry has consulted upon which is in effect an open standard, a common standard, that we can just know it works and link into it.

Q48 Alun Michael: You are questioning whether there is actually the equivalent.
Ms Beynon: In terms of the network, yes. I welcome what the gentleman said about opening ducts. As we said earlier on, we are very pleased that, having been discussing this for a number of years with Ofcom, we have now got to a position where we are going to be evolving a duct access product. That is a huge step forward. Other than that, I am not conscious of any product that we would be able to link into in the way that BT has a product which any telecom provider can buy from us.

Q49 Alun Michael: A point Dr Whitley mentioned in passing was greater take-up, as distinct from availability, in the UK. We do tend to concentrate on availability because those who cannot get it obviously are very keen to deal with that particular issue.
Ms Beynon: Yes.

Q50 Alun Michael: But the take-up issue is very much one of digital inclusion. The higher level of take-up you have described, and your comparison with Japan you might perhaps want to supplement with the take-up in Wales.
Dr Whitley: We can provide OECD stats, yes, of course.[3]

Q51 Alun Michael: Is that across the board as distinct from big city to big city comparison?
Dr Whitley: We probably have that information and can provide it. The take-up is pretty uniform across the UK. It is a very, very interesting and often overlooked point, but I guess if you were to try to decipher why the take-up in the UK is where it is, we would say that it is because the structure of the UK market has led to a variety of things. It has led to significant choice of some very, very powerful and well-liked brands, BT retail amongst them, but plenty of other very, very big brands in the UK market, and that has obviously led to a fierce price competition which has led to very keen prices. Again if you look to the OECD data, the UK fares very well in terms of pricing of broadband. Those are the things that combine to lead to quite a good position. There is a quite a lot more headroom to go. We are just north of 60% in terms of take-up. It is very likely, as we see a convergence of TV services with broadband, that that is going to open up a whole

new avenue for growth which I think could drive further north. Again it is not accidental that the UK take-up is ahead of some of those other markets.
Ms Beynon: The take-up of broadband in North Wales is exceptionally good. It is 52% in Anglesey and 51% in Gwynedd. We are seeing take-up figures in those parts of Wales higher than in the equivalent parts of England, so we should not talk down what Wales is doing in terms of accessing digital technology. Actually, Wales is doing very well, and it has been encouraging, because that means then that obviously government services can be offered online more easily because you know that you have a significant number of your citizens already connected, but we are also finding that people, particularly businesses, want very good applications and solutions that are easy to use, easy to buy. I do not think they can cope with the complexity of having to configure and recreate their own connection system into a network; they want to buy something off the shelf that does what they need to do that saves them money. That is what the businesses in North Wales tell us.

Q52 Alun Michael: Could you perhaps supplement that in terms of the Welsh situation in relation to take-up as a comparison.
Ms Beynon: Yes.[4]

Q53 Alun Michael: That would be helpful for us. In relation to North Wales, we have the fibre provided by Geo and we also have BT's systems. That presumably means that BT is being subject to competitive pressures in North Wales as a result of that public investment. What is the comparison of what is available to people? Is that now a fiercely competitive market in terms of the users of both BT's fibres and the competitor's fibre?
Ms Beynon: BT has fibre linking all its exchanges across Wales. That would be the core fibre. In addition to that we have access fibre, which is fibre that goes from the exchange to specific customers. For example, in Caernarfon we have a fibre going to Cibyn which is one of the main business parks in Caernarfon. That business park already has a BT fibre which again is available on an open access basis to the end-provider to buy that fibre. We have also provided Ethernet services into the main exchanges across the whole of the North Wales coast.

Q54 Alun Michael: Can you explain that, please?
Ms Beynon: Yes. Ethernet is a carrier technology that allows a more efficient use of the fibre, to simplify it. It also has a very attractive price point, so the price for Ethernet has reduced significantly over the last couple of years. The pricing of Ethernet I would say is a very, very competitive price, and that of course is the same price across the UK. There is a very, very vigorous market for Ethernet across the UK. We are competing very, very hard against Virgin Media, who also have very competitive pricing. That

---

[3] Ev 24

[4] Ev 24

competition with Virgin Media which maybe happens where they have network, benefits North Wales, because that reduction in price because of competition elsewhere means that the prices in North Wales are lower as well.

Q55 Mr David Jones: Ms Beynon, you mentioned the question of duct access a moment ago. We know you are in discussions with Ofcom about allowing competitors access to BT's ducts. You have been at pains to stress that it is not a silver bullet but that in some areas it might result in a better service. What is your view of the likely impact of opening up duct access on the Welsh telecoms market?
Ms Beynon: Ofcom have done a review of the availability of duct access recently, but 22% of ducts are probably full so there is a certain limitation in physical accessibility, and you may find that the ducts that are full are in the places where you need access so one has to be careful not to be over hopeful. But it certainly is part of the mix. Where you do have accessibility, then it does make sense. It is difficult to tell until you start doing it, but it is bound to have an element of an impact.
Dr Whitley: This cycles back to the point I touched on a moment ago in terms of the economic challenge of roll-out of NGA. If your policy objective is widespread availability of NGA to consumers (as distinct from the provision of high bandwidth services to business parks, which is a different problem) then the challenge here is just an economic one. You have heard from the previous witnesses that the paybacks are long and, ultimately, people do not buy NGA, they buy broadband that allows them to do things. Be it shopping or to consume iPlayer, that is what people buy. That end product is very keenly priced, and so the business case is very challenging. Our view—and it is a view that is shared by independent analysis and it has been shared by a recent report from the OECD—is that there is not really room, particularly in places like Wales, for multiple competing infrastructure at that level. If that is the case, then our strong view is that a solution provided on an equitable basis and an equivalent basis to the whole industry is the most likely way of getting widespread NGA. That is your policy objective. However, this is a very uncertain market. Things could change, the land could change, great new services could emerge that change the business case. Our recent discussions with Ofcom and our offer last year to open up duct on a commercial basis, and where others do it as well—because it is important that competition is a two-way thing—could have a role. Therefore, we are happy to explore that, and we will be exploring that, and we will see where that takes us. Our main play, which is the £1.5 billion investment that we have announced—but to correct that a little bit, it will be in mid 2012, that is our first phase of our deployment, that we pass 10 million homes—that is a product that we are offering from our Openreach division. It is very important to note that we are doing that, because that means from the very start

this is not a vertically integrated retail play, this is a product that we are offering on an equivalent basis to all players. When we look at the deployment we are making, the conversations Openreach are having are with Sky, with Carphone, with Virgin, and we are trying to get that product right for that broad range of service providers. It is by doing that you will maintain for NGA what has been so beneficial in the first phase of broadband; that is, customer choice and the ability for people ultimately to get service from the big brands or the small brands that they like. That is a long-winded answer, but there may be a role to play and we will explore that in terms of duct access. Fundamentally we believe that an active solution is the one most likely to crack that particular policy objective of widespread, keenly priced NGA.

Q56 Mr David Jones: If the ducts were opened, how would you share responsibility for maintenance and customer service?
Dr Whitley: Those are the practical issues that we need to work through. Your previous witness from Geo pointed to the fact that that is all pretty new stuff, and I think the industry as a whole needs to learn that. The honest answer: I do not know, as we sit here today. When we say we are in discussion with industry and with Ofcom around those sorts of things, those are precisely the sort of situations, plus the sort of situations that Ann has alluded to, that (a) there may be a duct but (b) it may be full or (c) there may be no duct. In many parts of the UK, particularly some of the more rural areas over the years, we did direct bury cables, so there is no duct to share there. There are a lot of issues, genuine practical issues, that we need to work through, to make sure that we can come to a workable solution that does not just drive costs for the industry as a whole, which ultimately is not going to be beneficial for end-users in the UK.

Q57 Mark Williams: The first question I asked was about the number of not spots, and that was one of, I think, the tasks charged by the Assembly on the Regional Innovative Broadband Support Scheme (RIBS). Could you outline how you have been working as part of that scheme in collaboration with the Assembly Government?
Ms Beynon: Yes, of course. The original contract was to enable the 35 exchanges that were not going to be available for broadband under the original broadband deployment programme, ie they were not commercially viable, and there were significantly more in Scotland, but there were 35 in Wales where the Assembly Government chose to go out to tender and we were lucky enough to win that tender and, therefore, we enabled 35 exchanges. There was a subclause on that contract to say that we should use our best endeavours to use our contract as well to address not spots, so we did not have to, but we decided that we would and we have done six not spots. Now, we have also undertaken the surveys for a further 60 and that information has been given to

the Welsh Assembly Government, and we are hoping that we can proceed with some more of those 60.

Q58 Mark Williams: What sort of timetable are you working to?
Ms Beynon: It is difficult to say. We have been having a lot of discussions with them recently about the contract and how to take it forward, and I am hoping that we have a resolution imminently.

Q59 Hywel Williams: I just want to clarify a point which I think you made to Mr Michael earlier on about the FibreSpeed network from Holyhead to Liverpool, and please do not think I am obsessing about this because I have asked so many questions, but just to be clear, if you had duct access to that FibreSpeed network, would you be interested in it?
Ms Beynon: It is probably unlikely because we already have our own ducted fibre, so it is difficult to understand why we would. We would never say "never", but at the moment I cannot foresee that there would be a practical reason why we would need to do that because we have our own fibre ducting.
Chair: Thank you very much for your evidence today once again and thank you for your earlier memorandum. If you feel you have not covered all the points, you can put them to the Committee in writing.

_____

Witnesses: **Mr Gareth Davies**, Director of Competition Policy, Competition Group, and **Mr Rhodri Williams**, Director, Wales, Ofcom, gave evidence.

Q60 Chair: Good morning and welcome back. Could you introduce yourselves for the record please.
Mr Davies: My name is Gareth Davies. I am a Director of Competition Policy in the Competition Group at Ofcom and I am responsible for much of the work that we do related to competition in the telecoms markets.
Mr Williams: I am Rhodri Williams, Ofcom's Director in Wales.

Q61 Chair: We have often discussed in the past the distinctiveness of the Welsh challenge really in terms of topography, language and so on. Could you share with us your thoughts about balancing the question of the established universal standards of regulation with the need to develop regional and local solutions.
Mr Williams: Well, certainly in terms of topography and what follows from that is the distribution of population and what follows from that is the economics of delivering services. Ever since services have been distributed electronically in Wales, if we go back to radio, to the introduction of television, to ordinary telephony, to broadband and to mobile telephony as well, the one thing that all of these have in common is that the costs to the provider, whether it be a state-run organisation, a state-funded organisation, such as the BBC, or to a private mobile network operator, such as Vodafone, the costs of providing service to the whole of Wales are always going to be greater than they are to densely populated areas. Within Wales itself, there is a difference between somewhere like Cardiff, which has equal access to places such as London, Manchester and large conurbations, and rural Wales where the costs are akin to those in other rural parts of the UK and what is perhaps unique to Wales, the valleys of South Wales which, although they are densely populated, still throw up problems in terms of propagation especially of mobile signals, so in terms of what any operator has to deal with when they look at providing services in Wales, there is no doubt that it provides a greater challenge than that faced in the UK in general terms. We see time and time again in all of the markets that we describe now, even those which are part of the public life, for instance, that there are more television transmitters per head of population in Wales than in any other part of the UK, so it is disproportionately more expensive to roll out services, but, generally speaking, the approach which has been taken in terms of regulation is that that can be dealt with, that can be accounted for without having to vary in considerable part at least the regulatory environment. Obviously, there are some differences. There are places where, for instance, the National Assembly for Wales has intervened, and you heard earlier mention of the RIBS programme which has been bringing broadband to those areas that do not get it, and that has also been done in Scotland and in Northern Ireland, but in different ways. Gareth can say more about this, but I think the regulatory approach, as far as Ofcom is concerned, is a common one.
Mr Davies: Indeed. Just to elaborate a little on some of the points that Rhodri has made, we clearly have obligations to promote both competition and investment in relation to telecoms markets and, broadly speaking, our approach is to encourage the market to go as far as it will go in terms of establishing both investment in new technologies and also effective competition for consumers based on that investment. That is the approach that we have taken in relation to both narrowband telephony services and also to broadband services, and we think that, by and large, it has been very successful over recent years in terms of establishing availability for broadband services across the United Kingdom, but, as Rhodri says, there are challenges in that and, in particular, there are some geographic areas where it is more costly to roll out service and, as a consequence of that, there are some places which are less well served than others. I think, as a consequence of that, there is clearly an important and significant role for regional initiatives and we very much would welcome those in terms of going where the market will not otherwise go. We have a

limited role, to be honest, in relation to those initiatives. There are, as you know, the Universal Service Obligations which we are involved in implementing, but those at the moment are not defined by Ofcom, they are defined by the Government, taking account of the European position on those issues, and they do not go as far as including broadband services at the moment, so they are focused on narrowband, but, as far as broadband is concerned, there are new challenges with next generation broadband in terms of ensuring that investment there also goes initially as far as the market will serve, but also then in terms of how to fill in the gaps as far as the areas of the market where it is not going to go of its own accord.

Q62 Alun Michael: We have asked a lot of questions about open access because obviously the development over recent years has seen local loop unbundling (LLU) and the agreement between Ofcom and BT which opened up a lively market in provision to the end user. We have also heard during the course of the evidence of places where attempts have been made to accelerate the availability of fibre, the system in North Wales, and we have heard references to South Yorkshire and the arrangements in Northern Ireland and so on. Can you just explain to us what Ofcom's approach is to making sure that, as we move from local loop unbundling into the fibre era, the maximum competition is there and the maximum opportunity is there for the provision of services to the end user?

Mr Davies: Certainly. I think there is not a sort of universally accepted definition of open access, but I think the important thing, as we would see it, is that there is both investment and also effective competition at the retail level so that, as providers roll out new investment in new technologies, they should provide access to other communications providers on a wholesale basis so that they can use those wholesale products in order to provide competing retail services. The nature of those wholesale products needs to be looked at depending on the specifics of the case, the nature of the service and the technology that we are considering, so in the current generation broadband context, as you have alluded to, unbundling local loops has been a very effective form of promoting investment by other communications providers and the development of an effectively competitive market and, broadly speaking, those LLU providers have invested in exchanges in the country serving about 80% of UK consumers, so a very considerable degree of investment in that regard, but not 100%, so there are still some parts of the country where LLU is not feasible and a different type of wholesale product there, a further downstream wholesale product, sort of bit-stream services are provided by BT to enable other service providers to compete. Now, when it comes to the next generation of access to services, again we are looking at the moment in the context of the market review that we are carrying out at what the nature of the wholesale products should be in order to support effective competition in those downstream retail markets. There, the position is

somewhat different from the current generation situation because it is more difficult to define a passive product without electronics attached to it, so a passive product that is comparable to unbundled local loops which will form an effective basis for competition, and that is essentially because in the next generation services you need investment in fibre of some type and it is more difficult to unbundle fibre and the fibre is not there to start with, so you also need to ensure that there are adequate incentives to invest in the fibre in the first place. As a consequence of that, we think that there is a very significant and important role for active products to be provided to provide open access and to ensure that there is, therefore, the scope for downstream competitors to enter the market. Now, that solution should be all very well where BT is planning to roll out fibre itself, but of course at the moment it has only announced its intention to roll out fibre to 40% of the country, so you have the question as to what happens with the remaining 60%. Now, it may be that BT might extend its footprint in terms of rolling out fibre to the home and fibre to the cabinets in the future, and that is a possibility, but we think it is also important to provide for other opportunities for other communications providers to come in and invest themselves, and that is one of the main reasons why we are currently considering what additional obligations should be placed on BT, as the provider with market power in this market at the moment, in terms of opening up access to its ducts and its poles so that, particularly in that 60% of the country where there is unlikely to be investment for some time by BT, others then have the opportunity to enter the market and to reduce their entry costs effectively by using BT's ducts and poles.

Q63 Alun Michael: So there is pressure on BT in those circumstances. Where other providers come in competitively to a small part of the market, then, I suppose, regulation does not really come into it, but what about where there has been public investment, as in Geo, or where the provision, as with Virgin in South Wales, originally MCM, was as a result of public policy decisions?

Mr Davies: We would expect, if there is investment in basic infrastructure where there is a degree of public funding, that it is still important that there should be effective retail competition, so we would expect in those circumstances that the provider of the infrastructure should make available wholesale products to other communications providers so that they can compete in the retail market. If that were not to happen, then we would need to consider whether there was any scope or any requirement for regulatory intervention in the sense that clearly there is a possibility that you might get a monopoly provider emerging in a particular location, which might be undesirable from the consumer point of view and might require some sort of regulatory intervention, but we hope to avoid that situation by trying to ensure that appropriate forms of open access are provided in those circumstances.

Q64 Alun Michael: Are you completely satisfied with the situation in Wales at the present time?

Mr Davies: Well, no, certainly not completely satisfied. I think the phase that we are in at the moment is a sort of transitional phase from current generation access to Next Generation Access. The situation is not ideal in either regard. With regard to current generation access, there clearly are parts of Wales and other parts of the UK where there is not an adequate level of service and the Government has clearly looked at that in the context of the Universal Service Commitment that has recently been given and I think it is about 11% of consumers across the country, not specifically in Wales, but across the UK, who do not have access to services of two megabits at the moment, so there is a commitment there which the Government has given to address that issue. Clearly, going forwards with regards to Next Generation Access, we are at the very early stage in that process, so there is a huge amount that needs to be done both in terms of investment and then ensuring, once the investment has been put in place, that there is the opportunity to compete on the basis of that investment as well, so we think there is a great deal to be done in both of those respects.

Q65 Mark Williams: I was going to ask you to give me a sort of standardised definition of how we can define open access on a network in which a large amount of public money has been invested, but I think you have already said that Wales is a slightly more complicated picture than that and open access networks function very differently, and there is a whole set of circumstances which work in each instance. As a layman asking an expert on these things, can you put that in the language of, say, three different scenarios, the constituents of mine who have got no broadband access whatsoever, others that have got very slow broadband speeds, and then we see the work that has been done on FibreSpeed in North Wales, so the competition in each of those scenarios, where are we and what can we expect?

Mr Davies: If we start with the no broadband access at all at the moment, that, in a sense, is the most difficult one from the point of view of a regulator in the sense that the principal reason why no broadband has been provided in some areas is because of the economics, that they do not work, so it is clear that the market, if left to its own devices, is unlikely to go into those areas, and we are talking about not spots and locations where the broadband speeds are very slow, so there clearly potentially is a role for public funding in terms of ensuring that those issues are addressed directly.

Q66 Mark Williams: I keep looking at the quote in front of me which talks about, "Ofcom has stated that it 'continue[s] to favour competition at the deepest level possible wherever this is both effective and sustainable'", and you are saying that it is not sustainable for those communities at least at this early stage?

Mr Davies: I am saying yes, if you leave it to the market, you might not get investment in the first place. You might not get one provider prepared to go

there, let alone several in order to provide a competitive situation, so it is a different type of problem and it is clearly more difficult to address. The extent to which, and how, it is addressed will depend, to some extent, on the technology, so on a sort of positive note in that respect, investment in next generation technologies could well assist because quite often these not spots arise in areas that are otherwise well-served in exchange areas where the majority of consumers have access to perfectly adequate services. In those circumstances, if a company like BT rolls out fibre to the cabinets in such an exchange area, then the problem of slow speeds could well go away for a number of consumers because it arises, in many cases, because of the length of the copper line, so, by rolling fibre out to the cabinet, you can reduce the length of the copper line and, as a consequence, enable much faster speeds to be delivered to those customers. For a sub-category of those consumers who have a problem at the moment, investment in the next generation technology should provide a partial solution, but, as I mentioned, it may be that there is some requirement for public funding in order to fill the gap that is inevitably left by the market because of the economics of provision in those circumstances. For the slow broadband situation, to a significant extent that has been addressed through the development of the market over the last several years based on providing access to copper-based services, particularly from BT, so that is a combination of unbundled local loop providers who have been able to invest in their own equipment, putting equipment into BT's exchanges and providing service on that basis, but also beyond the LLU footprint in those areas where the providers, like Sky and Carphone, have not invested, BT has regulatory obligations to provide what are called "bitstream services" which are services which enable ISPs, internet service providers, to provide a broadband service at the retail level by effectively reselling the product that BT provides to them. Then, as far as the slow broadband is concerned, we think that that, to a large extent, has been addressed in a current generation context. As far as FibreSpeed is concerned, clearly that is looking ahead to next generation technology and we would think there that a policy of open access would be important once the investment has taken place in ensuring then that there is effective competition at the retail level. As I have mentioned, we think that, because of the way the technology works, it is likely to be attractive and useful for an active wholesale product to be made available in those sorts of circumstances so that other providers can come in and compete.

Q67 Mr David Jones: The interim *Digital Britain* report noted that some countries have pursued a policy of "regulatory forbearance" under which monopolies are tolerated in order to encourage investment in areas which, otherwise, would not be commercially viable. Do you see any merit in either local or network-based policies of such forbearance

in this country, particularly in Wales, in order to solve some of the more intractable problems that we have?

Mr Davies: I think that the blanket forbearance may well not be appropriate because it could lead to the sort of monopoly situation that we have referred to and that, I think, would be inconsistent with our regulatory obligations, our statutory obligations to promote competition, but we do think that there is a significant opportunity and a requirement actually to ensure that those investing in the new technologies are able to earn a reasonable return on their investment and that could well involve, for example, forbearance in relation to the regulation of prices. That is an approach that we have said we would intend to apply as far as BT is concerned in relation to its wholesale active product which I have spoken about, so there we have indicated that we do not think it would be appropriate to impose a charge control on BT for that product partly because of, at this stage, a lack of information, that it is not clear what the demand is going to be and it is not really clear what the costs are going to be, but also because it is especially important to ensure that BT is not disincentivised from making the investment in the first place, so we do think there is some scope for ensuring an appropriately light-touch form of regulation in those sorts of circumstances to make sure that the investment occurs in the first place.

Q68 Mr David Jones: Would you be prepared to tolerate a permanent monopoly in certain areas in such circumstances?

Mr Davies: At the retail level?

Q69 Mr David Jones: Yes.

Mr Davies: Well, I think that would be a far-from-ideal solution. Clearly, from a consumer's point of view, it is much better if you have a choice of providers which sets up a dynamic in terms of providing a better type of service, lower prices, better quality and so forth, so that clearly is a much better situation to be in. Now, if it came about, through factors beyond our control certainly, that a monopoly did emerge, then the position that we would be in would be of having to decide whether regulatory intervention was necessary and appropriate in relation to that monopoly, and that is something that we would have to look at on a case-by-case basis.

Q70 Mrs James: BT has recently announced that it will be opening up its passive infrastructure, so what regulatory issues are raised by this decision and how will you be approaching them? Also, is this decision likely to have an impact on the access issues under discussion today?

Mr Davies: Well, we are actively looking at those issues and we naturally welcomed BT's announcement that it is happy to open up its ducts. At the same time of course, we have been doing work on a market review and considering whether additional regulatory obligations should be applied to BT in relation to opening up access to both its ducts and its poles, and we are planning to publish a consultation document setting out our proposals in those areas over the next month. Going back perhaps to some of my earlier comments, we do think that there is potentially an important role for providing access to infrastructure, such as ducts and poles, particularly in those parts of the country where BT itself is not planning to invest in its own fibre, fibre to the cabinet or fibre to the home, because doing that, particularly in those areas, would reduce the costs of entry for another communications provider and might, therefore, stimulate additional investment which clearly would be for the benefit of consumers. That additional investment could be commercial investment, purely privately funded investment, but it could also be publicly funded investment or a combination of public and privately funded investment, so we do think that that whole area of duct and pole access has a role to play in terms of acting as a potential catalyst to additional investment, particularly in areas which are not going to be served by BT's own investments.

Q71 Mrs James: One of the arguments that we have heard against passive competition, which is an option which you are increasingly turning away from, is that it will result in a duplication of infrastructure and investment. However, could a regional market, such as the Welsh one, benefit from a greater diversity of NGA solutions so that households who are not picked up by one NGA technology can investigate other options?

Mr Davies: I think the point about duplication of facilities is an important one and it is the reason why we put some more emphasis on the active approach, the use of active products, because the studies that we have carried out and had commissioned for us do indicate that, if it is necessary for an entrant to construct its own ducts, for example, and establish its own poles, that puts up enormously the cost of entry and that is inevitably effecting higher prices to consumers, so providing access to BT's ducts and poles will reduce the cost of entry, but it is still unlikely to be as cost-effective as the active remedy in those areas where BT is investing itself in fibre, so we think that the two approaches, the active approach and the passive approach, are complementary to one another. Also, as I mentioned, where BT is planning to invest in fibre, that could help solve some of the problems in current generation access because rolling the fibre out to the cabinet, for example, will reduce the length of that copper and, therefore, some of those who currently cannot get any broadband service at all might in the future be able to get a much more satisfactory level of service.

Q72 Mrs James: So you are not ruling out coming out for one in favour of another and you are looking at those households, and I am particularly concerned about those households, who have not got any options at the moment?

Mr Davies: Yes, I think it is important that we recognise that, depending on the geography in particular, you need different solutions and different

solutions are likely to work and be economic, and we have seen that with local loop unbundling, that it is fine for 70 to 80% of the country, but it is not for the other 20 to 30%. The economics of the next generation in a fibre-based world are different again, and we would hope that it proves economic for the market to roll out fibre as far as possible, but initially BT's plans are limited to that 40%, so it is uncertain as to how far the market will go at the moment, so it is necessary to have these other solutions in place to do our best to address those other situations where consumers might otherwise lose out.

Q73 Alun Michael: This is one of the intriguing things, is it not? The impact of local loop unbundling and BT's decision at that time took us much further, I think, than we expected the market would be able to take us, and I remember when I was dealing with rural affairs that the initial prospects seemed very pessimistic. As you have just implied, those are quite difficult decisions to make, so who should take the responsibility and who should take the lead in defining and implementing the roll-out of new-generation access? I suppose what I am asking is: what role should industry play, what role should Ofcom play and what role should public bodies play in that?
Mr Davies: I think the principal role should inevitably be with the market, with the firms that are likely to be putting the investment in themselves because they are closest to the market and they are better placed than, for example, we would be, as a regulator, to assess what can be done from a cost point of view, which technologies make sense in what sort of geographies, and also clearly they are closer to the market in terms of understanding willingness to pay for investment in these new technologies, so we would think that the principal role in that regard would be with the market and that our role, as Ofcom, should be to do as much as we can to foster an environment which encourages that sort of efficient investment and, in turn, competition based upon it. Now, in those circumstances, clearly there is the question as to what role should Government have in terms of filling in the gaps, and I think that for some parts of the country one could probably identify that there is a very low likelihood of the market actually investing in providing a solution for customers, for other parts of the country it will be clear that there is likely to be investment, and then there is a grey area in the middle and that is where the really difficult questions arise.

Q74 Alun Michael: Well, let us concentrate on where the difficult questions arise then. We have heard earlier about the public sector support for a number of schemes in Northern Ireland, South Yorkshire, North Wales and Cornwall and, not surprisingly, those are not just areas which pose technical challenges, but they are also the former Objective 1 areas where clearly there is a general concern about the market not being likely to meet the requirements. In those sorts of areas, how complicated is it, the fact that you have a role, as a regulator, but obviously you are making judgments about the market that

you regulate and public bodies are having to make a judgment about what intervention is necessary in order to lift those areas of greatest need? For instance, did you work very closely with the Welsh Assembly Government on the decisions about the North Wales fibre spine and, in a similar way, would you work with the relevant authorities in Northern Ireland and South Yorkshire?
Mr Williams: Well, there certainly was discussion between ourselves and the Welsh Assembly Government prior to the decision to go ahead with the FibreSpeed project. Back in February 2007, we published a document jointly with the DTI, *Public Broadband Schemes: a Best Practice Guide*, and in that document we mention the FibreSpeed project as one which can result in significant benefits to consumers, businesses and regional economies without damaging competition between broadband suppliers.

Q75 Alun Michael: That is fine, it is a level of generality, but I am trying to focus in on where we are now.
Mr Williams: Again, the current discussions with the Welsh Assembly Government relate almost entirely to intervention in first-generation broadband. At the moment, there are no proposals on the table for further intervention in super-fast services, but I am sure that at any time, if the Welsh Assembly Government were to want to bring those discussions forward, they would do, as they did last time, and meet with colleagues in various parts of Ofcom to discuss the merits of that approach.

Q76 Alun Michael: But, in your judgment as Ofcom, where should the balance lie between, if you like, filling the gaps in the basic coverage across the UK and promoting the development of next generation broadband? The worry seems to be primarily in the second rather than the first, does it not, in many cases?
Mr Davies: Implicit, I think, in your question is that there is a trade-off, that they are competing for the same resources effectively, but I do not think that is necessarily always the case. For example, we have spoken a little bit about not spots and not spots generally arise because of the length of the local loop or for other technical reasons. Now, solutions to address those problems are unlikely to be competing for the same investment funds that a company like BT might be contemplating putting into Next Generation Access because that is not two competing commercial opportunities. There is a commercial opportunity for Next Generation Access investment, but the not spots problem is a problem where the economics do not work, so it is a different type of problem, so we think that, as we touched on, public funding may be particularly effective in terms of addressing those issues where the economics do not work and that is in one category, but, in general, I do not think you would necessarily expect, and we certainly have not seen evidence, that they are effectively squeezing out or reducing investment activity designed to address problems in relation to current generation access.

Perhaps as a further example of that, BT is at the moment both pushing forward with its proposals for Next Generation Access, but at the same time is pushing forward with its investments in ADSL2-Plus, which is a technology which would provide speeds up to about 24 megabits, so really quite a good speed there too, where they have recently announced increasing the proposed coverage of that technology to 75% of the country. In principle, it could be the case that investment in one area might squeeze out investment in the other, but we are not aware that that is happening at the moment.

Q77 Alun Michael: You referred to the question of not spots and to the issue of competition, and one of the things that you said in the 2007 guidelines was that schemes which aim to connect people currently trapped in not spots would be "easier to justify than schemes which aim to increase regional competitiveness". Can you explain why regional competitiveness should be considered as a priority when allocating public funding?
Mr Davies: Can I just clarify the question? You are asking us to clarify whether regional competitiveness ought to be a priority?

Q78 Alun Michael: As I understand it, you were saying that schemes that aim to connect people currently trapped in not spots, which is what you were talking about a few moments ago, are "easier to justify than schemes which aim to increase regional competitiveness". We have spent a lot of time talking about regional competitiveness, the competitiveness of Wales compared to regions in England, and I would have thought it would have been a quite serious consideration, but you seem not to think so. That is the question.
Mr Davies: I would not say that. I think the thinking behind that reference in our earlier document was that the not spot issue is essentially one, as I have mentioned, that is to do with uneconomic provision. The economics do not work, so, if there is not some sort of public intervention in those circumstances, it may well be that there is no solution. The question

of regional competitiveness is a little more complex than that because clearly regional competitiveness will depend upon investment by both the private sector and also publicly funded investment, and it may well be to a significant extent that the requirements, which are clearly important requirements for regional competitiveness, could be met to a very large degree through privately funded investment, and I think that was probably the thought behind that particular reference.

Q79 Alun Michael: In North Wales, we now have the Geo system and we also, from BT, have fibre to the cabinets at least and the possibility across North Wales as well, so there is a fair amount of competition there. A lot of public money went into that spine. Against your criteria, was that wrong then? That was presumably to improve the competitiveness of North Wales, in particular.
Mr Davies: Well, that is not something that I have looked at in any level of detail and it may well be that the earlier investment which was, as I understand it, publicly funded might well have stimulated some additional investment by the private sector, so the dynamics can be quite complex sometimes. We have not looked specifically at the effectiveness of the FibreSpeed proposal because I do not think it would be our role to do that.

Q80 Alun Michael: I was not trying to pose a trick question, but I was trying to understand the thinking behind the priorities and, perhaps if you would like to think about that further and supplement the evidence, that would be helpful.[5]
Mr Davies: Okay, I am happy to.[5]
Chair: Thank you very much for your evidence this morning. We look forward to receiving that supplementary evidence. Could I, in closing this session, make you aware of the fact that you have the distinction of being the very last two witnesses to appear before the Welsh Affairs Committee in this Parliament.
Alun Michael: Unless we have second thoughts!
Chair: Thank you, everybody.

[5] Ev 27

Written evidence

Written evidence from British Telecommunications plc

INTRODUCTION

1. BT is pleased to offer these comments in response to the letter from the Welsh Affairs Committee dated 2 September 2009 concerning public investment in infrastructure and, in particular, the FibreSpeed investment by the Welsh Assembly Government.

2. In the context of communications infrastructure, public sector funds represent a scarce resource that should be used only in cases of market failure, where a commercial case does not exist to provide the investment necessary to meet defined public policy objectives.

3. In the event that public funds are used to support investment in alternative infrastructure to that provided from private sector sources, then the resulting infrastructure should provide "open access' on equivalent terms and conditions to other companies to provide services over the network. The investment and access should be in active rather than passive products, in order to enable end users to benefit from competition between various service providers using that network.

INVESTING IN NEW FIBRE NETWORKS

4. The UK's highly competitive communications industry is founded upon a national infrastructure provided by BT, with competing infrastructure where a commercial case exists for the necessary investment, and BT wholesaling open access to its network to all service providers. This open access from Openreach, provided on equal terms to all service providers, is what has enabled users of communications services to benefit from the most competitive market in the world. It does not require new access infrastructure to be built, but rather allows the existing infrastructure to be utilised by competing service providers.

5. There is currently considerable debate around the world over creating the right conditions for investment in and optimum use of broadband infrastructure. Operators in many countries have begun investment, or have at least announced plans for investment in Next Generation Access (NGA) fibre access networks. It is widely recognised that new fibre access network investment is risky, and that it is unlikely that there will be scope to build competing fibre access networks, even if there may be limited competition between technological solutions (ie cable television versus fixed telecommunications versus mobile access networks). The method of access to these high risk investments is, therefore, critical if competition is to be maintained and yet investment still encouraged. Access methods that rely on alternative infrastructure build will increase the cost and dilute the market and thus significantly increase investment risks. They are also unlikely ever to result in more than one or possibly two alternatives in any one area.

THE ECONOMIC VIEW

6. The difficult economics of building competing access infrastructures for next generation access are well documented by various studies. For example, in a paper on fibre investment[1] the OECD concluded:

> "The business models for fibre-based networks depend on high upfront investments in infrastructure. Penetration rate and capital expenditure are the main factors, which influence the profitability of the model and the risk that an investor will need to face. The penetration rate influences the cost structure of a network owner and will in turn affect pricing to a large extent so as to raise questions as to whether, in a given market, facilities-based competition will emerge. The impact of penetration rates on the monthly price for an all-fibre network is such that it is unlikely there will be multiple networks to guarantee a competitive market."

7. Most of the economic studies that have been conducted have been based on initial NGA deployment areas where there are relatively high customer densities. In areas where market failure has occurred, or is expected, and thus state aid or other government funding may be considered, the economics for even one NGA infrastructure are, by definition, difficult. The likelihood of more than one, even if "passive" type access such as duct access is provided, is vanishingly small. The importance of "active" types of Open Access is, therefore, even more critical in areas involving government funding unless a local monopoly is to be the end result.

8. The Generic Ethernet Access product offered by Openreach and made available to all CP's in the UK on equivalent terms, is an example of what BT means by an active Open Access product. It ensures that investment in fibre provision is accessible to all operators on an equivalent basis, and that customers have a full choice of services from all the competing offerings in the UK market. Any form of Open Access that does not offer this level of competitive choice to customers is liable to be sub-optimal in terms of both competition and efficient investment.

---

[1]   Developments in Fibre Technologies and Investment, DSTI/ICCP/CISP(2007)4/FINAL

Public Sector funding

9. In cases where Governments are prepared to offer funding for fibre network build-out, this should be accompanied by a stipulation that the resultant network should be made available on an open access basis in order to ensure the benefits of competition flow to customers.

10. Government funding is a logical consideration for building this type of infrastructure in cases where there is, or is highly likely to be, market failure in terms of the provision of network investment from private sources. On the other hand, Government funding of a network to compete with one provided through private sector investment, is a poor use of the limited capital available, particularly in difficult economic times such as are being experienced at present. It is, therefore, important to be clear on how "market failure" areas are determined. If such funding is to be considered, Governments need to think very carefully both about the potential impact on private sector investment and about ensuring that the cost of that investment from the public purse is no more than would have been paid at a commercial rate to the existing network provider.

The Current Situation

11. There is a consensus that fibre access networks will be subject to higher risk than core networks, and are much less likely to be duplicated. This is particularly so in areas of market failure or expected market failure, where government funds are most likely to be utilised. Network providers in these areas will be likely to have market power, and should be obliged to provide wholesale services that do not rely on the provision of a parallel access infrastructure, so that other operators can provide retail services in competition with the access network owner. No other form of effective competition is likely to emerge or survive in such areas.

12. Vigorous retail competition stimulates the market, and increases the overall level of usage of the underlying infrastructure. The provision of retail services to end users at the same time as wholesale services to competitors is likely to be the best guarantee of achieving a return on the network investment.

13. "Open access" should be provided in a technology neutral manner, based on the principle that "regulation should promote competition between competing infrastructures as deep in the network as such competition was likely to be effective and sustainable".[2]

Where it is not economical to duplicate infrastructure, wholesale services should be provided. These services should be offered to all on the same terms and conditions, and using the same processes, whether the customer is a competitor or a downstream arm of the network operator. The aim should be to facilitate competition rather than to facilitate the building of competing infrastructure. For this reason, wholesale services should take the form of active elements (ie bitstream services) rather than passive network infrastructure elements (such as access to duct or to segments of dark fibre).

14. Determining just where the economic point of access to the network is, will to some degree be dependent on the market being served. The residential consumer market has distinctly different characteristics from the business enterprise market. Residential consumers are typically grouped together forming a mass market. By contrast, connectivity demand from enterprises (and possibly also the residential demand for very high bandwidth) is likely to be geographically dispersed, so can only be economically addressed through active wholesale services such as Ethernet.

Conclusion

15. BT believes "open access" should be defined not just in terms of allowing wholesale access of some kind (the minimum to comply with state aid rules—which, effectively is the case with Fibrespeed) but also to ensure that the type of wholesale access offered fully supports a wide range of downstream providers to maximise the benefits for consumers and businesses. "Open access" should be used to promote and maintain competition so that customers can benefit from this use of public funds. A communications network provider, who enjoys a position of dominance or market power within a defined market, should be required to provide actively managed transmission capacity to all market participants, including capacity for use within the provider's own group, on equivalent terms and conditions, at the lowest point in the network which will sustain competition. Provision of just a passive access component, such as duct access, will be simply uneconomic and lead to local monopoly or at best duopoly situations with customers "locked in" to the first access supplier.

October 2009

Written evidence from Geo Networks Limited

Thank you for your letter of 2 September regarding the Digital Inclusion in Wales inquiry by the Welsh Affairs Select Committee. I was delighted to be able to contribute and am pleased to be able to provide further comment in relation to the issue raised by the inquiry regarding providing open access to next generation networks, particularly when there has been an element of public investment.

---

[2] Ofcom, *Final statements on the Strategic Review of Telecommunications and undertakings in lieu of a reference under the Enterprise Act 2002,* 22 September 2005 para 1.5

We strongly support the view that the outcomes of the FibreSpeed project are carefully evaluated and are published. Currently, we are supporting the Welsh Assembly Government in their Benefits Realisation Plan, which is how they track and measure the benefits of strategic capital projects. FibreSpeed, Geo, contracted Service Providers and some end-users have all been involved in providing information to the assessment process.

We believe that the publication of such benefits will support the future intervention strategy and ensure that the Open Access approach is adopted in all future interventions. The concept of full open access to data network infrastructure has been promoted by Geo on our own network for a number of years and forms the basis of the FibreSpeed business. Increasingly, the concept has been adopted for more state interventions into broadband networks and the latest EC guidelines on application of state aid in these circumstances have usefully clarified that an open access requirement should include access by other service providers to the "passive" network such as the rights to use ducts, fibre and street cabinets as well as the "active" products or "lit" services which run over the optical fibre. We believe that this is a critical intervention which both supports the vision shown in the formulation of the FibreSpeed project and business model and which will avoid the creation of barriers to the deployment of modern data networks throughout Wales and in other parts of the EU.

However, there remain some barriers to the provision of open access infrastructure and would identify the following key areas:

— The requirement to provide duct access has not yet been adopted by the regulatory bodies to apply to incumbent telecoms operators. Therefore, without access to existing duct capacity of BT and others, there may still need to be increased and duplicative investment needed to deploy backhaul and NGA networks.

— €1 billion was to be made available through the EU Recovery plan for broadband projects. The decision to distribute this funding through the European Agricultural fund for redevelopment severely diluted the effectiveness of this funding, resulting in small sums being available in many local areas of intervention, which is unsatisfactory when substantial investment is required in capital projects. We recommend that any future funding should be held at the UK or Assembly Government level and released for specific projects. In particular, this should apply to the fund being raised by a levy on existing telephone lines proposed by the recent Digital Britain report.

— The commercial rating of optical fibre is a disincentive to providing fibre access over the last mile and in backhaul networks to remote locations. This is a significant operational cost which is substantially in excess of the positive impact of any proposed telephone line levy. It makes no sense to raise a form of taxation on investments in new infrastructure being made with public money and we recommend it is removed or considerably reduced.

— In deploying Fibre To The Home (FTTH) solutions, the extension of telecom operators Code Powers to the delivery of services on overhead lines, would potentially accelerate a lower cost deployment of NGA networks, especially in rural areas.

FibreSpeed has now been operational for six months and the first customers are live and receiving services. The Open Access model has been implemented for FibreSpeed through a "sell through" service provider model, which has been successfully adopted. The engagement through Service Providers has boosted the service providers' businesses and is developing a regional group of companies that should grow and expand with FibreSpeed successes and are in a good position to exploit further State Aided interventions.

More directly, the wider community benefit of this network can be demonstrated in the following incidences:

— Bangor University halls of residence are receiving broadband connections via a microwave link to extend from a FibreSpeed PoP to the building. This enables all students to have a 4Mb connection in their rooms.

— One Service Provider has successfully tested a WiMax solution from a Business Park and is now offering entry level services to a disperse footprint beyond the business park.

— Two separate businesses are using the network to grow their IT hosting services. This has enabled them to bring IT servers back from UK Data Centres to Wales and enhance the skill base in the local economy. Their success should have a positive affect over a wider footprint, while their business are directly benefiting from being on the business park.

— One media company has connected to the network via a BT local access circuit. The use of third party circuits enables an extended reach of FibreSpeed network.

— A manufacturing company has committed to the development of its manufacturing capability in Deeside, which will deliver investment in Wales in preference to other regions.

More generally, we are working with a number of Service Providers into the potential for exploiting existing assets to enable more wireless broadband services and other access technologies to ensure that wider penetration of the consumer market is achieved as well as supporting them on specific customer opportunities.

Finally, FibreSpeed has awakened demand in many other poorly served areas and we are frequently receiving enquiries relating to potential opportunity to serve other areas in Wales, in particular where broadband service is poor and it is not expected to be met through the competitive market. At FibreSpeed promotional events, there is a regular demand to know when FibreSpeed will reach into these areas, and further investment is expected to be needed to meet high demand that are beyond the current network reach.

I trust that this information further supports the inquiry and would be happy to provide additional information if required or attend future meetings.

12 October 2009

Further written evidence from Geo Networks Limited

Thank you for the invitation by letter of 10 February 2010, inviting me to provide oral evidence to the Digital Inclusion follow-up inquiry by the Welsh Affairs Select Committee and I am delighted to be able to attend and contribute further to their work. I understand that the inquiry will look at the additional information I supplied by letter dated 12 October 2009, but will also consider some additional issues, related to which I am pleased to make the following contribution, prior to the oral evidence session.

TARGETING OF FUTURE INVESTMENT IN NETWORKS

Our experience with FibreSpeed and Geo Networks is that an Open Access backhaul network is the fundamental underlying infrastructure on which a wide variety of commercial and retail propositions can be built. Regardless of the technology of the access network, the ability to deliver high-speed broadband to the consumer premises relies on the ability to have the backhaul connectivity to the internet and private networks where information content is stored, distributed and shared. FibreSpeed and the Welsh Assembly Government have concept plans for future development of the FibreSpeed core network, and if this investment progresses, it will underpin the opportunity to widen the market reach throughout Wales.

The second stage of any intervention strategy is to provide the connectivity from the Core Network to the customer premises or homes. We believe that the strategy should target the investment on a future-proof infrastructure that will help rebalance the economic conditions to address market failure. In practice what this means is supporting the appropriate infrastructure investment for the geographic area. We see two key strands to this investment in Next Generation Access:

— Fibre to the Premises (FTTP). FTTP will greatly improve the bandwidth available to consumers and is the ultimate in Next Generation Access (NGA) networking. Our expectation is that 100Mbps services would be standard. Critically, and unlike current services over copper networks or Fibre to the Cabinet (FTTC) solutions, these can be fully symmetrical if point to point fibre designs are needed. GPON fibre solutions tend to limit upstream bandwidth which is a critical capability for video services, homeworking, business usage and the future evolution of broadband services. To achieve this, a reasonably high density of population is required, so while this is likely to be developed commercially in areas like Cardiff and Swansea initially, smaller market towns are unlikely to see such investment in the foreseeable future. We therefore believe that infrastructure investment in smaller market towns would be a strategic move as the investment should be able to provide a commercial return against ongoing costs in the short to medium term, but it is unlikely to have a payback on the capital within a commercial investment period. In any such investment, both active and passive services should be offered on an Open Access basis to ensure the retail competition is developed.

— In the more rural and remote areas, FTTP would be more expensive, although access to BT's pole system could enable this as a solution in more areas than previously thought. However, an effective strategy would be to use a wireless solution, such as WiMax or the mobile operators' 4G/LTE technology. Investing in a passive network of towers and co-location sites both along the core fibre network and at off-net sites within microwave reach, would be a technology agnostic approach that could substantially change any commercial investment profile and thus enable multiple broadband providers to be attracted to these areas.

In summary, we believe that future investment should be targeted under a three pronged approach of core network backhaul, Fibre to the Premises (in the commercially marginal areas) and a wireless infrastructure roll-out for the rural and remote areas. This would be a catalyst to further investment in the targeted areas and would attract investment to the more economically advantaged regions in parallel, thus enabling Wales to be positioned for organic economic growth, attracting inward investment and delivering better quality public services.

DELIVERING BENEFIT TO SMEs AND CONSUMERS

Investment is often targeted at high value customers with the demand and finances to deliver a healthy return. Even with government intervention projects, due to rules on permitted levels of intervention measured by State Aid Intensity, then the business plan needs to be structured accordingly. However, with the underlying investment and connections in place, we then see the market developing new propositions along a technology adoption cycle.

To demonstrate this, at FibreSpeed, we had a number of early connections for ICT companies that sought to exploit the new opportunity, followed by businesses where communication is mission critical. While these types of business continue to adopt, we are now seeing the service providers investing in alternative solutions such as WiMax to deliver 2Mbps symmetrical services at a lower price point. They have also stated that in due course they will offer asymmetrical services at an even lower price point.

Therefore, we see progress along a technology adoption cycle being the natural evolution of services to target the wider market covering consumers and SMEs. If this is to be accelerated then the approach for investment in NGA, would deliver an accelerated path, for services more appropriate to the SME and consumer market.

STRIKING THE BALANCE BETWEEN INVESTING IN FUTURE NETWORKS AND DELIVERING ADEQUATE SERVICES TODAY

We firmly believe that investment should only be targeted at future-proof networks. Fixing the problem using the old copper network is a short-term and ultimately stranded investment. In some respects, this is comparable to fixing potholes on the road, rather than doing a full resurface which would save taxpayers money in the long term.

The strategy to adopt in investing can be varied, one question that is always considered is where the Government should intervene and how to define the market failure to inform that decision. Further to that, there is a need to consider the investment strategy between technology approaches, such as those set-out above between FTTP and Wireless investment and the transition from current ADSL technologies to NGA networks.

What we would envisage is that existing underserved areas can be addressed by a flexible technology, such as wireless and in the early stages of deployment, wide areas can be covered in poorly served areas to address the immediate needs. As demand grows, the capacity on the wireless network may be stretched due to spectrum limitations, this however would be complemented by driving more fibre out to local hubs and additional premises. In this way, pressure from the continually growing requirements of today's broadband networks is alleviated and the investment continues to deliver improving services all based on future proof open access infrastructure.

THE ROLE OF OFCOM

Ofcom has an important role to play in the development of new NGA networks in the UK. It should prioritise the following:

— Ensure that cost-oriented reference offers for access to BT's infrastructure (duct, poles, fibre) are made available to the market as soon as possible. Really, these should have been done at the same time as the concessions made to BT for the roll-out of its own "super-fast" broadband services but, notwithstanding demand from the industry and the recent lessons of the Local Loop Unbundling product evolution, they were not.

— Ensure that BT's new networks are genuinely open access so that other providers can buy both passive and access services on them.

— Engage with the VOA for the reform of the business rates regime and its application to optical fibre networks. The current system is a disincentive to optical fibre roll-out whether in the access or backhaul layer and BT is in a significantly better position than the rest of the market. This affects competition and Ofcom should be working with Government on the development of a fairer system to promote competition in this area.

— Promote the open access model for public sector funded NGA projects and advise RDAs and other authorities looking at this area of investment so they can follow best practice for funding and tendering these projects and gaining State Aid approval from the European Commission.

I trust that this information is useful in informing the follow up to the Digital Inclusion inquiry and I look forward to meeting the Committee again on the 9th March to provide oral evidence. If you require any further information in the meantime, I would be delighted to assist.

26 February 2010

————————

Written evidence from Virgin Media

Virgin Media's position on public intervention in the market for NGA remains that at this stage in the evolution of NGA, the private sector should continue to play the principal role in driving NGA deployment in the vast majority of the UK. This is a view supported by the Caio review, Ofcom statements on NGA, and the Government's Digital Britain report.

However, in Digital Britain, Government also acknowledged that "there is no obvious means whereby the market, unaided will serve the final third of the population." The Government "therefore propose a Final Third Project to deliver at least 90% coverage of Next Generation broadband for homes and businesses by 2017".

Virgin Media agrees with Government that there may ultimately be limits to what a market led approach to NGA can deliver, and in certain instances there may be a limited role for public sector intervention. Such intervention must however, be constrained to those specific circumstances where private sector investment does not materialise or where there is no alternative option. Deployment of NGA is still at a nascent stage—and as such in general it remains to be seen where and how competitive conditions will materialise.

Virgin Media accepts the Government's view that in a small minority of locales private sector led investment is unlikely without some form of public intervention. However, even in such areas, innovative commercial partnerships or small changes to the regulatory environment could tip the balance in favour of commercial deployment without the need for public subsidy.

If public intervention is warranted, it should accord with established best practice guidelines for such action and should be applied in such a way that detrimental effects are avoided—in particular the disincentivising of competition. In this respect we would highlight the risks of intervening in and securing state aid or similar for areas that have the potential to attract private investment and/or sustain competition without intervention. Public sector intervention should occur only in instances of demonstrable market failure over a sustained period of time.

Further, the use of common standards, protocols and approaches should be encouraged. Certainly, from a technological perspective, any public sector intervention should be co-ordinated with general deployments in competitive and private sector led areas to ensure compatibility and to avoid the emergence of isolated independent solutions. This desire for networks to be integrated and coherent is reflected in the Government's commitment to ensuring that any public money provided from the Final Third Fund through the NDPG is done so on the basis of a "coherent framework for network designs, operating systems, common processes and regulatory requirements so the next generation access networks across the country work as effectively as possible for all parties. In particular, the networks need to offer all end users an optimum level of service quality and choice."

Virgin Media is pleased that cable operators are specifically cited as being able to access this fund, and will be working with the NDPG to better understand what a framework for delivering NGA in the Final Third might look like in practice.

December 2009

————————

Supplementary written evidence from BT

Households with No Broadband Availability in Wales, in Comparison with the UK as a Whole; and Broadband Take-up Comparison between the UK and Japan

Households with no broadband availability in Wales in comparison with the UK as a whole

Less than 1% of UK households do not have the ability to receive a broadband service via a phone line connected to one of BT's Broadband enabled exchanges. This figure reflects the ability of an individual line on an enabled exchange to deliver the required electrical performance to enable DSL equipment to operate a broadband service on that line. In Wales the figures are slightly different due to the different distribution of long lines that are the main cause of lack of broadband availability. As a result 1.9% of Welsh households are unable to receive a broadband service via a phone line connected to one of BT's Broadband enabled exchanges.

Broadband take-up comparison between the UK and Japan

Broadband figures are produced by various bodies. The most authoritative source is considered to be the OECD, which publishes data on its broadband data portal. http://www.oecd.org/document/54/0,3343,en_2649_34225_38690102_1_1_1_1,00.html

The data on this site for broadband penetration was last updated in January 2010 and included the following comparative figures for the UK and Japan:

UK—28.9 lines per 100 population

Japan—24.2 lines per 100 population

OECD also publish data on the take up of broadband by household. Due to the difficulties of identifying broadband use by household as opposed to by business, this data tends to come from national surveys and is less frequently updated. The last update was in May 2009 and the comparative figures for the UK and Japan are:

UK—61.5% of households have broadband access

Japan—58.5% of households have broadband access

Wales—Take up of Broadband in Wales has generally lagged that of the UK as a whole but Ofcom's 2009 Communications Market report for Wales shows that this gap was closing with take up of fixed line broadband in Wales increasing by nearly 30% to bring the total number of households with a broadband connection rising to 58%.The same Ofcom report also highlighted that take up of broadband is higher in rural areas of Wales at 60% compared with urban areas at 57%.

March 2010

————————————————

Supplementary written evidence from Geo Networks Limited

Thank you for the opportunity to provide oral evidence to the recent Digital Inclusion follow-up inquiry by the Welsh Affairs Select Committee on 9 March 2010. As a result of the inquiry and after having had the opportunity to consider the oral and written evidence submitted by the other participants, I would like to make this contribution on certain points that I believe need further clarification and elaboration.

1. BT WRITTEN AND ORAL EVIDENCE

In BT's supplementary question on "Open Access" document (paragraph 15) it states:

"BT believes that 'open access' should be defined not just in terms of allowing wholesale access of some kind (the minimum to comply with state aid rules—which, effectively is the case with Fibrespeed)"

In her oral evidence before the Committee Ms Ann Beynon stated, with reference to FibreSpeed (Q47):

"there is no product, as far as we understand."

The FibreSpeed network provides both active and passive network services to service providers. FibreSpeed offers the following products:

— *Active Network Services*

— Local Connect: Local Access Ethernet services over fibre and microwave links.

— Open Connect and Ether Connect: Ethernet backhaul to the carrier neutral gateway.

— Dedicated Connect: Ethernet connections between customer premises.

— Lambda Connect: DWDM Wavelength services across any part of the network.

— *Passive Network Services*

— Fibre Connect: Dark fibre across any part of the network.

— Co-Location: Rack space in Points of Presence.

— Tower Co-Location: Access to space on masts at Points of Presence.

2. GEO ORAL EVIDENCE (Q 17–20)

The FibreSpeed pricelist is available to all service providers under a simple industry standard confidentiality agreement. Service providers do not have to be in a service contract with FibreSpeed to gain access to the pricing.

FibreSpeed does not make the pricelist public, as this may hinder the commercial flexibility of small service providers with their end user customers. Should BT request a copy of the FibreSpeed pricelist, we would be pleased to supply the pricelist on this basis. They have made no such request to date.

3. SUPPLEMENTARY INFORMATION REGARDING OPEN ACCESS

Geo's position that open access requires access at both the passive and active layer of the network, is supported by the European Commission in its published State Aid Guidelines. These guidelines regarding public intervention in next generation access networks[3] include the Design of the Measure (paragraph 79):

> "the access obligation imposed should also include the right to use ducts or street cabinets in order to allow third parties to have access to passive and not only active infrastructure"

The Guidelines also include the following statement:

> "[intervention] should support effective and full unbundling and satisfy all different types of network access that operators may seek (including but not limited to access to ducts, fibre and bitstream). In this respect it should be noted that "multiple fibre" architecture allows full independence between access seekers to provide high-speed broadband offers and is therefore conducive to long-term sustainable competition. In addition, the deployment of NGA networks based on multiple fibre lines supports both "point-to-point" and "point-to-multipoint" topologies and is therefore technology neutral."

In BT's supplementary question on "Open Access" document (paragraph 3) it states:

> "The investment and access should be in active rather than passive products, in order to enable end users to benefit from competition between various service providers using that network."

Further in BT's supplementary question on "Open Access" document (paragraph 13) it states:

> "The aim should be to facilitate competition rather than to facilitate the building of competing infrastructure. For this reason, wholesale services should take the form of active elements (ie bitstream services) rather than passive network infrastructure elements (such as access to duct or to segments of dark fibre)."

This seems to us to be at odds to the European Commission's State Aid Guidelines. If FibreSpeed were to follow the model promoted by BT, it would be incompatible with the State Aid Guidelines.

4. PASSIVE ACCESS AND THE COMPETITIVE BENEFITS

Open access at the passive level ensures that the public investor can prioritise the creation of long-life, open access, passive assets, and minimise the risk to the public purse inherent in shorter life cycle active technology investments. This is analogous to the public investor prioritising road building over subsidisation of the latest generation of cars or lorries.

Geo has been a leading player in providing open access to its passive core network and has been a champion of this philosophy since its inception. However as previously stated, FibreSpeed also provides a complementary suite of active products.

We would challenge BT's conclusion in its supplementary question on "Open Access" document (paragraph 15) on the grounds that FibreSpeed is not offering solely passive access, but a full range of active and passive network products:

> "Provision of just a passive access component, such as duct access, will be simply uneconomic and lead to local monopoly or at best duopoly situations with customers 'locked in' to the first access supplier."

Access to the passive network element is critical because it allows new entrants to enter the market to compete on a level playing field in at least the core network (as if they were their own telco) with large vertically integrated players such as BT. Access to passive infrastructure also allows big companies (such as financial institutions) to build and operate their own bespoke and dedicated fibre networks (services that BT do not provide). In areas where an incumbent's infrastructure already exists, access to the incumbent's passive infrastructure (ducts, poles, fibre, space, power etc) at competitive prices will eliminate any need to construct a duplicate network, lower the cost of roll out and generally encourage competitive market entry.

An example of a market requirement that only passive access can meet is Google's recent announcement of its intention to connect up to a half-million people in the US on an open access fibre network. Google is proposing an "open access" network available to other service providers. If this were in Wales, Google would be able to lease dedicated fibre directly from FibreSpeed to build its network, allowing it complete choice and control over its requirements. On the other hand, as BT restricts its networks to active services that would not provide open access fibre to meet Google's requirements.

Geo has made its own fibre core network open access and has identified a number of markets where this dedicated fibre network has a high demand for capacity and security reasons, these include:

— LLU operators. Geo provides access to both BT exchanges where traffic is aggregated and for its core backbone network.

— Mobile Operators. Geo provides, via BT as the retail operator, fibre for the O_2 network.

---

[3] Community Guidelines for the application of State aid rules in relation to rapid deployment of broadband networks

— Data Centres: Geo provides dedicated fibre for a systems integrator to manage public records information.

— Financial Services: Geo provides fibre for low latency, highly secure dedicated networks.

5. Conclusion

The restriction of access to active products only does not comply with the State Aid Guidelines and will continue to restrict competition, suppress innovation and undermine the ability of the economy to grow in the digital age. It has been our experience that, when access to passive infrastructure is available, competition benefits. Investment at the passive level provides high quality long life infrastructure providing the best option for technology neutral network scalability.

19 March 2010

Supplementary written evidence from Ofcom

At our recent appearance before your Committee, we promised to write with further detail about a passage in the *Public Broadband Schemes: A Best Practice Guide* referred to by Rt Hon Alun Michael MP. Given that the document in question is a joint government/Ofcom publication it is worth stating that what follows is Ofcom's perspective. It may not necessarily reflect the current view of the government.

Public Broadband schemes aimed at generating a competitive advantage for a given region or other area through early investment in higher speed broadband access infrastructure may be harder to justify than for those aimed at addressing distributional objectives, eg deploying such infrastructure in areas where the market is unlikely to deploy on its own.

The reasons for this are described in the document (p 7). They are that such schemes run a greater risk of:

Distorting incentives for efficient private investment—public schemes aimed at improving competitiveness of a region may risk distorting competition more than schemes aimed at achieving distributional objectives. This is because these schemes may be focused on regions that would have witnessed commercial deployments in NGA infrastructure in time. They therefore risk distorting the incentives for future efficient investment by the market.

Technology obsolescence—investing in advance of the market also increases the risk of technological obsolescence, where the public sector scheme may choose to deploy a specific technology which is superseded by later market led developments.

Duplicative investment—schemes to increase regional competitiveness in the short term may result in infrastructure investment that would anyway have been made by the market in due course, or act as a substitute for existing broadband infrastructures. In both cases, public intervention may not result in the most efficient outcome. Avoiding this situation requires a good understanding of how demand for higher bandwidth services may differ from existing broadband services, and where the market is and is not likely to deploy infrastructure. Both of these are relatively difficult to assess in advance.

Transient benefits—competitive benefits achieved from the acceleration of higher speed network in a particular area may be transient, with subsequent commercial or public sector deployments in broadband infrastructure in other regions eroding the competitive advantage gained.

Not standing up to a public value test—if the scheme delivers services that aren't widely available elsewhere in the UK, demand by consumers or businesses for the new services is likely to be hard to determine. Overseas demand for these types of service is not always a good indicator of likely demand in the UK. Similarly, it may be hard to determine the level of interest from the providers of new applications that the new infrastructure may enable. In the absence of proven demand from customers or application providers, it is more likely that the investment may not be efficient.

As the document notes: "these risks can be mitigated to some degree by ensuring that any intervention is targeted at a specific region or set of customers. The outcomes and impacts of such schemes are easier to assess and manage than larger, more general interventions."

I hope this clarifies the thinking behind this part of the document.

17 March 2010

ISBN 978-0-215-55399-7

9 780215 553997