

Fibre suppliers having to work with local authorities

Ensuring the co-operation of private/commercial landlords facilitating access for fibre suppliers is certainly a step forward in the UK's digital journey. Whether absentee landlords, landlords unwilling to trouble themselves or both, there is broad agreement that this a major concern. However, the real issue that needs to be addressed is ensuring the co-operation of local authorities, whether that be Housing as residential landlords, Legal regarding wayleaves or Highways regarding street works and ducting.

Local authority structures are often byzantine and many councils don't have a senior manager responsible for digital. Decisions regarding fibre, base stations or small cells can involve, and be passed between myriad directorates and departments e.g. Highways, Housing, Capital Programmes, Legal, Business Development, IT, Finance and so on. Often, nobody in senior management has an overall picture and nobody is identifiably responsible.

Until local councils are actually forced to take digital and fibre connectivity seriousl, progress really is going to continue at a snail's pace. DCMS are willing to issue quite stark warnings to the likes of Openreach to co-operate

It is imperative that Openreach fully implements these requirements to open up its passive infrastructure. If the evidence shows that this remedy is not being implemented properly, we will consider all options with Ofcom to ensure compliance Page 32- Future Telecoms Infrastructure Review

but where councils are concerned, it's all carrot and no stick. I briefly spoke to Gareth Holvey, DCMS Head of Mobile and 5G at a recent Cambridge Wireless 5G event in this regards and he said basically, we will be continuing with the carrot 'as you in local government know your local residents needs better than us'. Herein lies the problem, the carrot just isn't working because all it takes is one or two key officers unwilling to inconvenience themselves with anything new, dynamic or outside of their usual remit and everything grinds to a halt. It's no great coincidence that operators are coming up with ideas to move things along subterraneously whether through London's tube or sewer networks not only to reduce costs but also minimise interaction with local authorities.

Helpful and well-intentioned though they, we in local government don't need encouragement to use standardized wayleaves, handy toolkits, Gigabit voucher schemes or competitions to bid for DCMS funding which are effectively a drop in the ocean. We need to be instructed by central government, in no uncertain terms to get out of the way of progress and allow suppliers to get on with it.

Suppliers should not have to grovel for permission to lay fibre, utility companies don't have to make a case for supplying water, gas or electricity so why should fibre suppliers? Until this happens, progress is not going to be made and the DCMS published ambition of 15 million homes to be served with Gigabit capable fibre by 2025 is not going to be achieved.

Perhaps applications for wayleaves could be changed to a default position of approval so that the council has to actively refuse, giving reasons rather than approve. Any disputes could be reviewed independently maybe by DCMS or Ofcom with the power to make binding decisions.

Openreach and Virgin are in no hurry to roll out full fibre to residential homes

Whilst the local authority bureaucracy is partly the blame for our abysmal showing behind all of the other countries in Europe, other than Belgium and Greece, the real problem here are the business models of Openreach and Virgin. According to a survey in ISP Review last

year, around 75% of respondents said that on installation of fibre they would (or had already cancelled) cancel their landlines. Only 10% said that they would definitely retain one and this is the real root of the problem. Expecting either company to engage in what is little better than commercial self-harm and fully embrace the DCMS ambition is naïve in the extreme. In fact, landlines aren't the only collateral damage in regards to fibre, it doesn't take long for customers to starting wondering why they are paying for expensive TV packages when they can watch the same programmes and films over the internet at a fraction of the cost.

Virgin's 'Project Lightning' is not only a ridiculous name for the kind of operation one would normally associate with the Third Reich, it is also highly misleading. Why are DCMS even entertaining them as part of this discussion when they clearly aren't offering Gigabit capable full fibre to either home or the building? 'Project Lightning' presently involves installing coax cable that is capable of delivering 362 mbps ultra-fast broadband and is apparently 'Gigabit ready' though quite obviously not 'Gigabit capable' and aligns with 'Gigabit Britain Ambitions' (see snip form Virgin Media sales slide show below)

This is misleading in the extreme, I am aware of at least one customer who has mistakenly bought in to the fact that they were receiving some kind of new Gigabit capable hybrid cable. In fact, the 'hybrid' solution that Virgin are selling is merely their traditional mix of fibre to the cabinet with coax from cabinet to home and is not presently Gigabit capable. Furthermore, I was recently at a CW enhanced mobile broadband event where one of the speakers, Ravi Mondair, MD of iWireless Solutions asserted that coax would be dead technology within a couple of years. There was a large audience of top technocrats and despite a good ten minutes Q & A at the end of his presentation, not a single person in the room questioned that assertion.



Introducing project Lightning.

Virgin Media's Network expansion programme.



INTERNAL

Connectivity to most of the homes that Virgin have recently supplied under Project Lightning, plus their existing customers, needs upgrading prior to 2025 if the nation is to achieve the

DCMS targets so why is coax still being rolled out? I work for Lambeth council and it is telling Virgin are more than happy to supply 5 Gigabit fibre to council offices, they are also happy to supply fibre to our residential blocks but not to our residents; only to commercial customers i.e. MNOs who have rooftop aerial sites. I'm assuming that with Project Lightning, Virgin are trying to get their foot in the door so that they are best placed to offer true Gigabit fibre some time prior to 2025 but not just yet- as mentioned earlier, full fibre so often means cancellation of landline or TV packages, why would turkeys call for an early Christmas?

I don't intend to sound too anti-Virgin but it is they rather than Openreach that have recently approached Lambeth for wayleaves for Project Lightning. I'm quite sure that I would have made similar observations if Openreach had similarly tried to sell a fibre to cabinet service as Gigabit ready fibre to the home. Two of years ago Openreach were selected as a preferred business partner to deliver enhanced broadband to a notorious 'not-spot' in the borough and they used a traditional model of fibre to cabinet and Cat 5 cable to the home. As with Virgin's coax, this also require upgrading within the next few years to meet the DCMS ambition.

The UK may not fully benefit from 5G once MNOs/Mobile ISPs step into the breach

In Singapore the, government allows MNOs and Mobile ISPs access to all public rooftops both offices and residential (obviously, military and security sensitive sites not included) for a notional administrative fee- such is their commitment to the digital infrastructure of their nation. Whilst we are still a long way from anything so helpful in the UK, the European Electronic Communications Code of December 2017 has certainly made life easier for the MNOs/ISPs in dealing with local authorities. They now have a distinct advantage over fibre suppliers and MNOs and mobile ISPs with myriad rooftop sites such as UK Broadband will, with 5G, be soon able to deliver a Gigabit service without having to beg for permission to lay fibre.

There has recently been a flurry of activity with MNOs/ISPs upgrading backhaul to their Lambeth rooftop sites in anticipation of 5G and unless they do anything to attract attention- particularly post Grenfell e.g. attempting to move aerials around, drill through cladding etc. then they are pretty much free to upgrade their base stations as well. Most of the myths circulating around 5G technology and radio waves such raindrops and falling leaves being a major hazard or problems with handoff between base stations when mobile have now been debunked. Even the matter of indoor penetration being not as reliable as with 4G LTE can be circumvented with installation of outdoor Customer Premises Equipment, 5G CPE is currently expensive at around \$800 (US) a shot but likely to come down soon enough, an LTE outdoor CPE cost around \$80.

Most people involved in this industry believes that the full potentially of 5G; CAVs, remote health care, IoT, M2M communications etc won't be realised for several years and that certainly for the next four or five years, 5G will be all about better mobile broadband, '5G Lite' so to speak. Not least, this is because '5G Xtra' will require ubiquitous fibre, small cells on every other lamp post, in every commercial building and in every home. There's a real danger that once the MNOs and UK Broadband/Relish start offering 5G Gigabit mobile broadband then the push for fibre will lose all momentum as customers, central government, local authorities, landlords and suppliers go for the path of least resistance. The result will be that the UK get left still further behind because laying fibre through our streets and into our homes is just too much of a Herculean undertaking in modern Britain.

Conclusion

Nothing better highlights the sorry state of connectivity in the UK than Margot James' initial comments in this consultation document

'I continue to be impressed by the engineers and innovators of the early 20th-century. Their skill and prescience to bring telephone lines to every part of the country....'

The unfortunate combination of local councils failing to facilitate connectivity and the two suppliers best suited to supply full fibre having every reason not to do so, have left the UK in a position from which, if we don't move quickly we will struggle to ever recover.

DCMS clearly need to get tough with councils and as mentioned earlier- maybe change wayleaves involving fibre to ones of implicit approval unless refused with good reason within a certain time frame. In regards to Openreach and Virgin, perhaps the two companies would move a lot more quickly if the government offered some form of compensation to mitigate for the inevitable millions of cancelled landlines and TV packages.

Nick Lilley

About myself- I work as an IT Business Liaison Manager for the London Borough of Lambeth. I've only been working in the area of digital connectivity for just over a year, my previous thirty years with Lambeth, I've worked in Housing and in IT managing Housing Repairs systems- Therefore, as I'm not from the telecoms industry, apologies if these comments appear overly simplistic but sometimes looking at a problem with a fresh set of eyes gives you a different insight than someone who has spent the whole of their working life in an industry.- One thing I do know about though is how local authorities work, and in particular, they do actually move at speed when forced to comply with central government legislation.