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Implications of Ofcom's Initial Conclusions from the Digital Strategy Review

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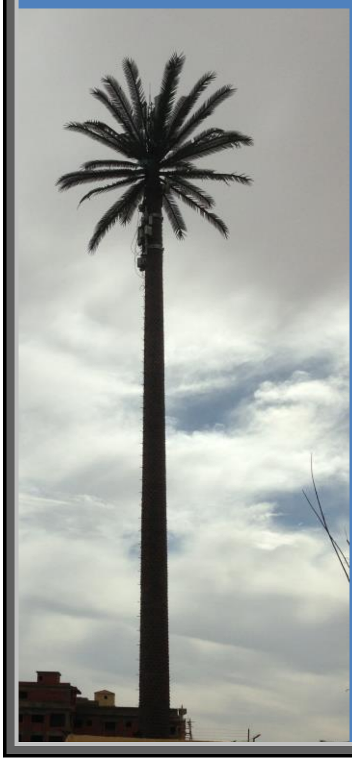

A discussion paper

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Implications of Ofcom's Initial Conclusions from the Digital Strategy Review

A Telzed commentary

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Please contact Telzed for additional insights, analysis and for assistance with strategic or economic/regulation consulting.

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1 Ofcom’s Initial Conclusions set out the key strategic directions

Ofcom published the Digital Strategic Review (DSR or digital communications review - DCR) in July 2015. Many submissions were made by interested parties (including Telzed[1]). As the DSR is a “once in 10 year event,” the importance was not lost on the industry and strong lobbying was made for different points of view. The many press articles are testament to this.

Much of the public debate was focussed on the BT split – divesting Openreach from BT. However the DSR addressed many other issues.

On February 25th 2016, Ofcom released its Initial Conclusions[2], plus an annex and other papers. The conclusions were widely responded to in the press and elsewhere, mainly with commentaries on the key facts, naturally with a focus on the decision not to split BT up, or rather not to refer the issue to the UK CMA, as Ofcom itself cannot force a split.

The purpose of this Telzed commentary is to provide some insights and thoughts on the *implications* of the conclusions. These are aimed at provoking discussion and other actions to assist with the production of final conclusions that are robust and well thought through. The implications should help other parties plan their next steps.

This report is independent and has not been sponsored by any external party. Telzed has no commercial relationship with any of the key UK stakeholders.

This Telzed commentary does not attempt to summarise all of the key facts of the Ofcom conclusion paper – they are included below in outline only, and are included mainly for contextual clarity and as a lead in to the analysis of the implications, which is the key focus of this Telzed report. The conclusion document has the facts as stated by Ofcom, and this is quite short by Ofcom standards - just over 100 pages. Other summaries exist[3].

The key Ofcom conclusions are (with italicised emphasis added):

- **A strategic shift to large-scale investment in more *fibre*.** This should reduce the country’s reliance on Openreach with the *roll-out of new “fibre to the premise” networks* to homes and *businesses,* as an *alternative* to BT’s planned innovation in copper-based technologies. This is strongly based on easier access to BT’s telegraph poles and in its underground cable “ducts.”
- **A step change in quality of service.** Ofcom will publish service quality performance data on all operators, and look to introduce automatic compensation for consumers and small businesses.

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[1] See Ofcom web site or (better) the Telzed site for slightly updated version: http://www.telzed.com/sitebuildercontent/sitebuilderfiles/telzed_report_for_ofcom_11012016.pdf
[2] The initial conclusions of its Strategic Review of Digital Communications
[3] See for example the article by Rob Bratby http://robbratby.com/2016/02/26/ofcoms-uk-digital-communications-review-bt-can-keep-openreach-for-now/

- **Reforming Openreach.** Openreach's governance will be reformed to strengthen its independence from BT – to be governed at arm's length from BT Group, with greater independence in taking its own decisions on budget, investment and strategy. All wholesale customers are to be treated equally, and to be consulted on investment plans. Full "structural" separation was stated to "remain an option[4]."
- **The right to broadband.** Ofcom will work with the UK Government to make decent, affordable broadband a universal right for every home and small business in the UK. This supports the recent Government announcement of a USO that "should *start off* at 10Mbit/s for everyone," and then *rise in line with customer demand over time*.
- Ofcom will look to **improve mobile coverage** by including *new obligations on operators* seeking new licences for spectrum (the radio airwaves which transmit mobile signals).
- **Empowering consumers to make informed choices.** Ofcom will give consumers power for more accessible and engaging information on the services available to them. Switching suppliers is to be made easier.
- **Deregulate and simplify whilst protecting consumers**. Less regulation where no longer needed, including when there is a real prospect of competition.

In the following, these and other aspects of the conclusions are examined further and the implications and issues are further investigated.

The three central parts[5] of the changes are:

- Duct and pole access to encourage fibre investment and competition
- The new governance of Openreach
- The consumer protection, consumer powers and quality of service rights.

The latter consumer rights and protection points are important and will affect every service provider. These will in turn influence the interfaces between the service providers and in particular with Openreach. However the initial impact is at the retail-customer interface, so the effects are indirect upon the wholesale actions. But clearly if a customer needs to "have a repair response in 1 hour" then the network activities have to change and so have impact on Openreach. This Telzed report does not discuss consumer issues or some of the other aspects of the conclusions including OTT[6] related points.

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[4] However this would always be true, and a clear decision has been made by Ofcom not to choose this path – so these words should not be taken as an indicator that the issue is still really alive. This was probably included to help give Ofcom some more leverage on BT and to placate some of the "Split campaigners."

[5] This was also the message taken by the author from a talk by Clive Carter of Ofcom at the Westminster eForum meeting in London 3 March 2016

[6] Over The Top services that could be regulated if they are like telco services or they else might mean the telco services should be de-regulated as clearly there is internet-based competition. This is currently a much debated issue; please contact Telzed to discuss this further - it is not covered in this report

2 Implications of the key Ofcom conclusions and statements

2.1 A vision has been defined

A key deficiency in the DSR consultation was the lack of a vision of where Ofcom was to regulate towards. Making any strategy to get to a non-defined outcome, inherently produces a hazy path, at best. Ofcom has taken this on board and has stated some clear general directions. These are very important changes and provide guidance for future regulatory decisions – Ofcom should now bias regulations and decisions towards promoting these outcomes. They include:

- Most consumers will move from superfast to ultrafast broadband over time
- Competing networks should be the basis
- Latest mobile technologies should be across the UK Geography
- A new fibre-future is the key foundation
- For non-competitive areas there will be targeted intervention
- The UK will be a world leader.

These are profound changes from the consultation. Ofcom has taken on board key criticisms and has accepted a number of submissions that argued for such changes. The acceptance of very fast access requirements, sooner or later and with a fibre basis, means that Ofcom has taken a longer term view and supports what is best for citizens and the wider economy based on access speeds that do not cause significant limitations on consumer actions. It has not gone with incremental approaches and has not accepted the “this is all you need” type of calculations for broadband speed. Significantly it has not let some industry parties dictate the overall technology and broad direction. In this respect it is more visionary than many will have expected. Ofcom has accepted the general principle there will be some future demand that may be not fully known today, that will almost inevitably lead to ultrafast as the future. This is particularly significant when it is considered that 10Mbit/s is just about sufficient for many consumers today and fibre based access implies ~100Mbit/s or more (much more than the average delivered today).

Targeted intervention means some government (and Ofcom) forcing of outcomes and also some monies should be available. This is also an important principle. Of course how much money, is not defined.

Mobile to cover the country is an important statement. This seems to accept the criticisms that the past regulations failed to give very good outcomes (see: poor 3G coverage with many partial not spots[7] and limited coverage obligations even in new 4G licenses). This is surely a

[7] Brought up in the Ofcom conclusion document for example in 1.6

good direction – that of forcing coverage to the benefit of citizens and not leaving it to the industry and competitive forces. This competition led approach is good in principle (of course) but the competition levels are not totally sufficient to give optimal outcomes. The implication is that Ofcom has recognised that operators might have a different agenda (such as maximum profits) that veer away from theoretical consumer-optimal outcomes. This is surely a major change in thinking.

Competitive supply of access networks is the key basis for the future. This is a central issue and this is returned to later in this report - see Section 2.3.

UK is to be world leader. This also has key implications that mean:

- Ofcom has accepted that "simply" showing UK is doing well or a bit better than say France or Germany, is insufficient. The UK is in a global economy. Inevitably this will probably lead to debates over which country to compare with and using what measures. This does not detract for the key principle. During the DSR period there have been claims that the UK broadband performance has been very good and also claims that outcomes are very bad. It is reasonable to expect Ofcom to define sensible measures for future comparisons to show a more objective view of where the UK really stands

- The DSR consultation and other Ofcom/government reports have tended to trumpet the good figures (and here *are* good figures or measures) but ignored negative ones: good UK superfast broadband availability was noted but low take up and very low fibre levels were generally downgraded in emphasis. More honesty and more self-criticism in the future of the figures is implied and this is surely a change for the better.

Overall this general vision is a major move forward. There are a few counter comments that will probably be raised:

- A fibre centred approach breaks technology neutrality – something that Ofcom and the UK government have proposed recently in response to the EC consultation on the new Framework

- The targets are setting industry policy, not principles of regulation. The policies and targets ought to be set by government, not Ofcom. Alternatively targets should be set by the industry and competitive process.

The lack of government policy and directions was noted in some DSR responses – which should have provided the strategy's basis. With this vacuum, Ofcom has had no choice but to develop the direction itself. It is reasonable to assume that the vision was discussed with government. It is also easy to take the vision as "simply" developing the statutory requirements of Ofcom that must further the interests of citizens in relation to communications matters and consumers in relevant markets. To do this, *some* definitions have to be made.

The Framework consultation response may be read as directing the commission to allow freedoms and not to dictate national approaches. This is reasonable and this allows the national approach to do what is best for citizens in the UK – in this case some bias in technology has been chosen (but it is not for the commission to direct). This means no serious conflict.

Another possible view is that fibre itself is not really a technology at all, but a basic infrastructure - the technology comes in the electronics and lasers that use the fibre. This is not discussed further here, but clearly this thinking would reduce some of the concerns.

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However Ofcom is still moving onto prescribed solutions, and some parties will surely argue that this is not Ofcom's role.

2.2 Universal Service Obligation

This was announced during the consultation process by the government. It is a backstop USO to give coverage for all of something reasonable. It is not a USO that is designed to force very high speeds or force fibre investment. It is mainly a government directive but of course it links to the Ofcom strategy that has to regulate towards this outcome. A number of important new details emerged in the Ofcom conclusions:

- The 10Mbit/s target "*will need to rise over time, particularly over a 10 year period*"
- It could involve a mix of fixed and wireless technologies
- There will be universal access through effective, *targeted interventions* (e.g. conclusion 2.19). Public sector intervention may be needed to extend availability to uncommercial areas.

The appreciation that a target must develop over time is sensible and shows that Ofcom has accepted that some "obvious" technology and market changes must be reflected in the strategy and in the USO. There is surely no question that, currently, wireless surely has a role to deliver the USO target – again a sensible decision by Ofcom.

The recognition of public sector interventions is important. This implies that USO funding from other telco operators, or even (bizarrely) from OTT services, is not under consideration. This is sensible because there would surely be fierce objections to other telcos being asked to pay for a USO that has already been (in general terms) voluntarily offered by BT (see BT's announcements ~November 2015). Of course OTT providers may still contribute to the USO as their tax revenues go to government, but this is not the same as directly making a USO levy – something that would be controversial and problematical.

Government funding for the USO is likely to be met with opposition. The reasons include the fact that BT essentially offered the USO anyway during the consultation and for similar reasons as in the objections made over BDUK funding - that it is subsidising BT for investments that it would make, or should make anyway. Significant public funding is questionable, given the USO was initially offered by BT.

The USO is a government policy and could be argued to contradict the Ofcom vision for a superfast/ultrafast future based on competing fibre. The conclusion document's approach has an advantageous outcome:

- It has avoided the government making the policy decision ("that we need ultrafast"). If that were true, then a 10Mbit/s USO is in conflict with this and implies a two tier economy: how can one policy say we need 10Mbit/s and also say we need ultrafast?
- The ultrafast direction is now a *regulatory* strategy to meet consumer welfare and needs (which *is* part of Ofcom's remit)
- The USO is a back-stop minimum to protect the most disadvantaged which is certainly a reasonable speed-figure and a reasonable general principle for a government policy. As such it still means a two tier economy (those with ultrafast and those on USO speed) but the lower tier are not totally disadvantaged. This thinking can support the argument that the USO and the Ofcom vision are not in clear conflict.

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Further comments can be expected on the technical details and also on possible conflicts with other vision points or between the Ofcom and government strategies.

2.3 Fibre deployment and duct/pole access

This is a central tenet of the strategy and of the Ofcom vision, and should be considered along with new governance of Openreach. The basis for this approach includes:

- There should be *competing* service provider networks
- These should be fibre-based, supporting ultrafast
- The key method is to increase/ease access to BT Openreach ducts and poles – better infrastructure access
- Ofcom desires operators competing with BT and Virgin
- The existing wholesale “active products” such as VULA or BSA remain as a fall back for competitors.

The overall approach is clear – <u>maximum possible duct access to encourage fibre-investment and competition at this level.</u> Less clear is whether any government intervention monies might be available in less-economic areas (the digital divide). It is reasonable to assume that this will exist, as per BDUK, but this does not affect the fundamentals of the Ofcom approach.

This strategy implies that Ofcom expects new fibre-centred networks to be built based on new/better/easier infrastructure access (supplied under the new Openreach governance). There surely will be some price changes *to consider* in order to further promote the build, but this was not made totally clear. The outcomes should be good for consumers and should encourage investment. But, this is not as simple or as clear cut as might initially be expected:

- More fibre to the same premises duplicates infrastructure – gives stranded investments as only one can be used by a customer
- Operators who can *offer* superfast services with low initial investment, have advantages. If the customer takes the service then, if the incremental investment to finally deliver is low, then there is a clear advantage. BT of course has this benefit using fibre/copper and FTTC. Other service providers cannot do this as sub-loop unbundling to use the copper for the last drop is generally agreed to be not practical. They have much more investment and longer time delays to deliver a service if the access fibre is not already in place
- The basic premise is that existing ducts and poles can be used. Ofcom has studied ducts and poles in ~2010 (see conclusion 4.27 and other reports made at that time). This showed that certainly a lot of ducts will have space. Inevitably there are directly buried cables, full ducts or poles, blocked ducts etc. so that the new entrant will still have to build some of its own infrastructure and at the very least must install cables and customer premises units. It is not proposed that BT Openreach should be obliged to do this for the other operators – something that BT probably would not

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volunteer as a service[8] and it might be difficult to enforce as a new BT wholesale service

- The economics are likely to favour city areas as the primary target, even though these could have three or even more providers versus two in others where only BT is the other provider
- To be studied is the availability of spare ducts and poles in rural areas and less dense areas. If these are less available than in the city, then this means the approach is not going to help much with the digital divide
- Ofcom suggests, as a good outcome in the long term, 40% of households having network competition (conclusion 4.32)[9]. It is commendable that Ofcom is willing to put a figure on this. Maybe this is high number to some observers, but it will be low for others. It certainly has clear implications for the net effectiveness of the strategy: Ofcom expects "significant" network competition but this is ultimately limited - most consumers will not see it. No one should take 40% as a major triumph. It may however be "as good as it gets" and may reflect the realities that access network competition and investment is much harder than many realise – some of the reasons for this are discussed below.

Possibly some pricing offsets in rural areas may be used so that the longer length of duct-usage does not increase the cost in direct proportion. This could help. However the major cost for the new entrant is less from the duct space but from making the fibre installation investment. So this option has limited effect (and was not mentioned by Ofcom anyway).

The Ofcom approach means that the maximal possible opening of BT is being introduced. This gives the fullest opportunity to the competitors to build, based on BT's past investment. There seems to be no clear mention of how much forced new investment will follow for new demand where duct/pole capacity does not exit. However the new Openreach governance and forced *equivalence* implies that if space is not available then Openreach ought to build additional capacity. This follows as BT can/will rarely refuse a new customer's order on the grounds that "the duct in your street is full." How much this extends into obligations to build anew for the alternative provider's own customer-access when access ducts are unavailable, will be something to develop in the new rules and obligations on Openreach.

The Ofcom strategy does not address some key problems with the approach. The first key issue is that it does not recognise the fundamental asymmetry in risks and in the required incremental investment to deliver super or ultrafast:

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[8] Of course there is a relatively untapped business opportunity – building the bespoke fibre optic networks for each non-BT operator, using the BT ducts/poles plus adding in the fibres, customer access, terminations and additiona ducts and cable chambers etc. Many service providers are likely to be reluctant to get involved in this "dirty van" end of the business value chain, as discussed later in this Telzed report. BT *could* volunteer it, but others could also do it. Some independent duct and installation companies do exist - they might be able to expand to serve the other service providers

[9] At the Westminster eForum meeting 3 March 2016, Clive Carter reported on the Strategy conclusions and seemed to imply that this was only an *aspirational* figure but it could go as high as 40-50%. By implication, it might also be less

- BT has incremental costs and can cover most of an areas and meet say 85% or more coverage targets at relatively low cost. By using FTTC, the investment to give potential service supply to a customer ("coverage") is relatively low

- New entrants need to offer services to virtually all consumers to be credible. The upfront investment to "pass a house" is large

- New entrants do not know if or when BT may build fibre in a region or roll out G.fast. All business plans have uncertainties and risks (such as take up rate) but these can be dealt with. This type of major unknown makes a business plan almost impossible to pass investor management approvals.

Ofcom has not dealt with this. It has seemingly not considered the problem from a business manager's viewpoint. For example the BDUK was investigated over why other new entrants were not able to win or bid for monies[10]. A strategy that assumes all fibre investors are equal competitors, is not satisfactory. The new players are certainly competitors, but are not investing on an equal basis to BT or even to Virgin.

Ofcom must address this for new entrants to be able make a business plan work. The current implied laisse faire approach means a BT dominated approach. This may of course be not all bad (one can even argue that is actually a best outcome), but it undermines the aspiration for competition, as it will be much more limited.

The second major issue with the competing networks is the willingness of the other providers to actually do the fibre build. Even if they were able to make a business case then they will have a number of issues to address:

- Many of the competing providers buy-in BT wholesale services. They are service-competitors rather than access network infrastructure providers. Virgin of course is the biggest exception, but to new entrants it simply appears as another pre-existing competitor along with BT. Service buy-in has low capital investment. A fibre based new network changes the investment basis and capital structure significantly. This is not a showstopper issue but may not be easy to pass with shareholders/board

- The provider has to become a full end to end telco that needs: vans; digging equipment; dealing with customer premises access; pulling cables; and splicing of fibres. This is significantly different from a network that deals with customers via IT interfaces to BT Wholesale services and has buy-ins of 1000s of similar services in bulk. The customers are normally dealt with by calls centres or by the BT Openreach repair/installation staff. This requires new staffing, skills and investment. The existing core network issues remain and are not to be under-estimated, but are quite different to the access network business and current core network provision does not imply that a telco is ready to be a full end to end provider

- Some of the alternative providers have so far supported BT separation and stated that this would increase investment in the new BT Openreach. Clearly Ofcom was

[10] See for example the Public Accounts Committee meeting Wednesday 17 July 2013 and comments from PCCW et al. This provides examples of how a possible broadband investor thinks and makes decisions, but found the process was not suitable and so could not make a viable business case, unlike BT. Ofcom needs to appreciate such business thinking, even if all points raised then are not agreed with, when it defines its detailed programme

not persuaded that this would happen or would help competition (BT split was rejected). The clear desire was for the *split-BT Openreach* to invest (possibly with new shareholder or debt inputs). The new Ofcom approach implicitly puts the investment obligation back onto the competitors. This is surely a reversal of the past aspirations of some of the other telcos.

These points have profound implications for development of the strategy in practice and the economy in general. It is easy to cast doubt on the alternative providers' willingness to change their business from being wholesale-resale centric providers to fibre infrastructure access providers.

Some stated willingness to invest in the new BT-split business (had it happened) is not convincing evidence that fibre investment is equally easy to produce. Investment in a regulated utility's shares, such as in a new Openreach, is a totally different risk to investing and building new fibre in a region.

The strategy will fail if the alternative providers do not see the rewards being significantly greater, and commensurate with the new-build-network risk. Further: do the management and staff really have enough skills and background to move into a full telco infrastructure delivery? It is a radical change for some.

It may be speculated that Ofcom may have already thought this through. The Ofcom change is in effect a direct challenge to the alternative providers (not including Virgin and a few others who are building fibre access networks). Ofcom may be effectively saying: "You have not invested and built much in the access network over the last ~10 years, and you have demanded investment in the consultations. So here is the opportunity. It is now time for you to invest – it will not get any easier than this." This is not a one-sided challenge however as Ofcom has put a number of serious, but different, challenges onto BT with its new Openreach governance.

An inevitable take away from this is that some operators will be upset a) to have not had the BT split (and a likely blow to the aspirations for cheaper wholesale prices) b) to find that the investment source will not come just or mainly from the new separate BT Openreach, but also more significantly to find that it needs to come *from themselves*. Some adverse reactions may be expected. A lack of participation in the new fibre investment can also be expected for the many reasons discussed above. There will certainly be some investment, but a number of changes are required to make the business case work and to balance the asymmetric risks and ensure the business case works. This is especially true in rural areas. More work is required on this but the 40% figure from the Ofcom conclusions implies some thought has been already given. The implications are that the net impact is already predicted by Ofcom to be relatively low. Ofcom also states that the "*new network build tend*[s]*to favour dense urban areas"* so this also implies that Ofcom does not expect any major gains, as many of these areas already have two suppliers (BT and Virgin, plus a few others). The economic gains from having three or even four suppliers, starts to looks marginal, taking into account the reduced market share of each: the step gains are surely largest moving from one to two suppliers. This is a profound point: no landslide change is being claimed. No claim is made for significantly greater competition with very extensive national geographic coverage.

A realistic outcome statement is surely than better to give an optimistic one. But the 40% figure is a stark reminder of the limitations of competitive fixed access network provision. It is low, given the fact that Virgin already has significant coverage in the UK. The reasons why other operators will not build competing fibre networks, even with the best possible wholesale access basis need to be explored further – further understanding the telco business logic may help to refine the Ofcom approach. This Telzed report does not explore this further. However if this 40% figure really is the limit, then this need not be a fundamentally bad outcome – customers do not buy infrastructure and dual cables outside of a house give no immediate benefit. Customers buy *services*. The other 60% is, by implication, mostly BT-only provided.

The low figure has implications for sub-urban, rural areas and the digital divide. The strategy is not ensuring investment in these areas (other than with the back-stop USO). The approach is defaulting to BT for a large percentage of the country. This is of course both good and bad, depending on the viewpoint taken.

A key missing part of the strategy remains any additional incentives or protections for new fibre investors to compensate for the asymmetry in risk and knowledge compared to BT or possibly to Virgin. This issue was discussed in the Telzed DSR submission. Some new approach is required from Ofcom. Without this, new fibre investment from the alternative service providers will be low; perhaps even the 40% figure will not be met.

The 40% is certainly open to debate as it does not seem to match some of the declared plans of alternative providers: has Ofcom underestimated the likely coverage or are the plans unrealistic?

It is reasonable to assume that part of the Ofcom strategy is to provide enough incentives to get the alternative fibre investors to build "enough to get BT to act." As discussed earlier, if an alternative provider invests in fibre then it is a strong incentive to BT to build in that area. This may give more than one provider in that region. BT will also be encouraged to cover additional areas to limit the alternative-build threat. This BT coverage is increased if the threat of wider alternative deployment is greater. Therefore Ofcom likely sees the net outcome of fibre deployment mostly by BT, as a good outcome. So long as it is built, it is a good thing. By providing enough incentives to the alternative providers, BT is pressurised to increase its own investment. With this logic, there is no expectation or strategy that is fundamentally aimed at ensuring very large coverage by the alternatives – the strategy may be "simply" to ensure enough force on to BT for it to move faster and be more widespread in its investment. This does not actually require the alternative providers to actively build fully across the country.

2.4 Business services and dark fibre

The conclusions gave relatively limited discussion on business services. The duct/pole access was not specific regarding its use but it *seemed* that Ofcom meant that the duct access includes access for business use – as defined in the Key Proposals in conclusions section 1.1 "*A strategic shift to….encourage the roll-out of "new fibre to the premises"… to homes and business….BT will be required to open up its…. underground cable ducts*." It is reasonable, from this, to suppose that access rights would not be restricted to domestic customers and not to exclude its use for business customers or for core-network developments ("backhaul"). The actual outcome became clear in the business connectivity market review (BCMR) of April 2016. The actual outcome in the BCMR showed:

- Duct access was intended only for mass-market deployment of fibre
- The duct access would be considered for business, but only if part of the mass market deployment for domestic customers
- Access to large business sites via passive duct access was not intended to be remedy

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- Dark fibre access for larger businesses is a remedy, and such fibre was expected to already exist.

There are some balancing changes that may concern some parties as per conclusions 8.19 onwards. This indicates an intention to reduce some access obligations in some areas such as leased lines or "*removing existing regulatory requirements on BT – such as the requirement to provide Virtual Unbundled Local Access*." This is quite a profound change and could cause problems for some players. It implies a stick and carrot approach – better duct access, but "if you do not use it then you might not get access to services [such as leased lines or services over VULA] that you could have built yourself using your own fibre network." This of course works in a reciprocal fashion for BT, which may lose from having to provide more duct access and seeing more competing networks but it has less obligations to provide some of the higher level services[11].

<u>It is worth noting that fibre unbundling was considered to be *not a key* approach</u> (conclusions 4.35 onward). This is mainly for technical reasons – the use of PONS and particularly fibre to the cabinet by BT make it less viable as it requires sub-loop access to copper or to the cabinet[12]. Interestingly specific mention of dark fibre access for business connectivity and for mobile backhaul was mentioned (conclusion 4.38). Duct access for *some* business customers or network backhaul as well as customer access is an assumed outcome. This is a fairly significant change that should have some positive implications for some of the other operators. Their use of <u>dark fibre for business and for network (not customer)</u> links would mostly not need to rely on the domestic broadband fibre technology, as the locations are more likely to be served by "conventional fibre cables." This was clarified in the later BCMR statement.

Making any BT duct/pole or fibre available to other operators if feasible and without regard to the final use (for domestic customer, business customer or for network-build and connectivity) seemed to be the implied outcomes of the conclusions, but this was shown to be only for smaller business customers (say shops in a residential area) covered by the domestic mass market deployment.

Some issues follow from the approach as clarified in the BCMR. Although it seemed to contradict the strategy, Ofcom can claim it fits with the broad aims, as stated in the strategy – the focus is on mass-market outcomes. However what is a mass-market deployment, is open to argument. Further, the approach has inevitably to accept some duct access for smaller businesses – as they may be co-located with residential customers, and the definition of domestic and business premises can blur, especially with multi-occupancy buildings. There may well be arguments about where the line is set: what business access is allowed and when is a business too large and outside of a mass-market area?

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[11] As a general rule, an incumbent should prefer to sell higher level services than infrastructure services as the longer term impact of deeper-level competition and investment is worse (but probably better for consumers and the competition). This has been the basis behind Ofcom past policies to promote investment and competition at the deepest possible levels – this policy has been enhanced, not reversed

[12] The use of such technology of course makes unbundling much harder compared to point to point fibre approaches, but this is unlikely to be ever admitted as having been part of the decision process. This can be speculated upon – a thought that may be relevant to other countries that have chosen PONS and FTTC rather than point to point fibre

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2.5 No BT-split and new governance, but legal separation may still be an option

Ofcom has come out against a structural split. This subject has been widely covered during the consultation and in public comments on the Ofcom conclusions. This Telzed report does not analyse the reasons for this outcome. It was expected by many industry experts. Clearly the case for a split was not totally compelling.

It is clear that there remain concerns about the inherent conflicts of interest and possible bias within BT that may favour parts of BT over competitors. A full split would address this. Of course a split creates other concerns and problems. The most obvious are investment and controls – would there really be more investment in a standalone Openreach. New regulation/governance is required and what new cost/price controls would be needed? This was fully debated in the responses seen in the last few months and in the Ofcom conclusions.

The possibility of an infrastructure-only split has been raised ("InfraCo") by some parties. This was not chosen, but it may give a number of nuanced benefits over a split along the Openreach lines. This has just ducts and poles or possibly cables as well, but not much if any active transmission services. This did not come out of the conclusions. This will remain, like any other further split, something that will be debated, but it seems unlikely to happen in the near term, given the Ofcom decision.

The new structures, aims and benefits of enhanced functional separation are discussed at some length in the Ofcom conclusions (Section 6). This is option 6 in the model of separation – see Figure 14.

Ofcom discusses a further step – a wholly owned legal separation (option 7 in the model). This is not chosen: "*We [Ofcom] will compare the benefits of such a model against those of structural separation*…. *However* [option 7] …*raises legal and practical questions.*" See 6.73 and 6.74. This has Openreach as a wholly owned subsidiary.

The significance given to this legal separation discussion seems to be because the new governance surely starts to drift into this area. It also implies that Ofcom realises that it probably cannot be enforced by Ofcom (any more than structural separation), though as discussed below it *may* be possible as a European remedy process. The quote above implies that Ofcom is not certain that it would not have legal challenges. It is possible that the increased pressures on BT and Openreach governance are intended to encourage BT to think about the voluntary movements to legal separation. This is not as crazy for BT as many might think. It may make it easier for BT to comply with the governance. It could also help with shareholder value (sum of the parts are then more clear and so, if perceived to be worth more than the current whole, value will increase). The chief counter is that it could make it easier for an offer to buy one of the parts – something that BT currently opposes though this was stated to be more on the grounds of investment and consumer benefits. BT should surely manage itself for shareholder value and this will in turn benefit consumers – they are not necessarily contradictory. Managing for shareholder value is beyond this report, but *if* the parts are worth more separate, then a split is the implied correct strategy. A legal split is certainly not an inevitability, but it just might happen under pressure, but might have to be a

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voluntary BT move - something that *might* actually be a good thing for BT. This is of course a legal issue.

The strategy implied that legal separation could be considered as an option, but functional separation was the main intention. A publication in May[13] (*after* the strategy was published) shows that this approach is still under possible consideration. In addition, some prior BEREC work on remedies suggests that this might be possible as a special remedy and so legal separation is a European process and may not require UK competition authority actions. If so, it remains a potential Ofcom path, though BT might oppose this move. The legal aspects of such a move might be disputed. Clearly if this is being discussed (as of June 2016), then such matters will be kept hidden as the outcomes would be even more share-price affecting than increased governance of stronger functional separation. Functional separation still seems the most likely outcome, but legal separation has not yet gone away as a potential option (as of June 2016).

The actual final outcomes of the new functional separation remain to be clarified in detail.

The key outcome is that the status quo of functional separation remains the stated basis in the strategy. But the details of this existing separation are to be changed with new governance and processes. It might be termed "functional separation plus." The new functional separation will surely require a lot of changes and work for it to cause radical changes and to satisfy all of the parties (many of whom wanted structural separation). "*More independent governance*" implies that some quasi-independent board or monitoring team will be required. If this is to work it is likely to require hands on activities and not simply define KPIs and monitor trends in performance delivery figures. Details of the new approach and who and how it is governed will need development. However at this *strategic conclusion* stage, it is not appropriate to define this detail, rather the strategic decision is made and only the general principles and reasoning need to be defined. This is in line with Ofcom which states: "*We are now developing detailed proposals which we will discuss with the European Commission later this year,*" but surely this ought to be after some consultations with the UK stakeholders.

It is also reasonable to suppose that a lot of the governance options and issues have been considered and perhaps discussed privately by some parties already. Given the urgency to get this completed fast, some work should have started. Proposals should hopefully become clear soon.

2.6 Mobile

<u>The key message for the mobile industry is: no significant change</u> (conclusion 4.46). This may surprise a few parties.

> *"In mobile, there is no change to our existing strategy. We want the UK to continue benefiting from competition between four national network providers, and a range of resellers. We will work to ensure that the necessary wireless spectrum is made available. If we see takeovers or mergers leading to fewer, bigger network operators, and consumers are worse off as a result, this could lead us fundamentally to rethink our*

[13] Legal separation of Openreach from BT, by Towerhouse LLP, sponsored by Sky, Talk Talk and Vodafone

approach to competition and investment in mobile services." – See Ofcom Section 4 headline messages.

The point about mergers reflects the current interest in this, such as the BT takeover and other merger discussions that were underway but rejected by the Commission after the conclusions were published – something that was widely expected, even if this was not agreed to by some parties.

The implications are that the mobile industry has been successful in its lobbying and no major new regulatory interventions have been suggested. It is unlikely that the industry expected, or perhaps even desired, less intervention than seen today.

There are a number of more detailed directions that Ofcom has identified that have some interesting implications. However the points in conclusion 1.15 are mostly of limited substance, but the addition of any new spectrum is always significant. This includes Ofcom "*exploring options for extending mobile coverage. We will seek to place new coverage obligations on companies who win new spectrum licences. The 700MHz band is particularly well suited to providing such coverage"* - Section 3. The focus on coverage relates to criticisms made in the consultation that are now being addressed in the new strategy.

Conclusion 1.69 states: "*We will use the powers that we have to require operators to improve mobile coverage. For example, by including licence conditions on population and geographic coverage for new future spectrum releases*." This implies that Ofcom has taken on board the legitimate criticism that the past mobile outcomes have not been as good as they could have been (low coverage in particular). Belatedly a new approach that should force a better outcome for citizens is being made clear. It may be too late for 4G as this coverage obligation was not placed on all licenses. It is certainly too late for 3G. It implies that Ofcom realises that even in a notionally competitive market, business management thinking will not naturally give the best consumer outcomes (the market is not like shoe shops). So regulatory intervention or direction is still required. This is surely correct, and it is an important change in thinking or at the very least it is open acceptance that past actions were incorrect/non-optimal. It may also mean that Ofcom has taken on board the message that it must *really understand* the telecoms business world (including technology) and how management really thinks/acts, as well as economics and competition/regulation theory.

As the mobile merger was rejected, it still means that Ofcom has to define a clear way forward that benefits the industry, competition and consumers. The strong support for the merger implied that there was something wrong in the market and some operators have problems. These problems will not have gone away as the market status quo remains. Perhaps Ofcom might consider new spectrum allocations to assist some operators. Another outcome might be the emergence of another fixed-mobile player to counter the BT fixed-mobile market business, but this is not within Ofcom's control. Such a fixed-mobile merger surely could not be opposed as the BT merger was allowed.

2.7 Fixed Voice

This has been something of the Cinderella in UK regulation. There is now clear acceptance in conclusion Section 7 that the outcomes have not been very good, with rising prices and less choice whilst costs have surely generally fallen even with the declining volumes. Many factors contribute to such outcomes, including the lack of mobile market pressures for the lowest price/cost traffic. However the effects of broadband and from bundling are clearly significant. Also significant is the collective effect of telecom managers' thinking. This is shown in the conclusion document Figure 17. Here Ofcom recognises the trends to higher prices yet the underlying wholesale prices were falling. It was surely in the commercial interests to have higher fixed rental and call prices, and few players actually compete only in this market. Competition for telephony customers is masked by broadband. As a result, basic telephone services and telephony-only customers have suffered - "*We have particular concerns about the situation for consumers who use standalone services.*" Although somewhat after the event[14], Ofcom has seen the past failures and negative outcomes. It is good that Ofcom is now willing to point out the market failures. More such *mea culpa* is a good thing and a sign of a strong regulator (though Ofcom has of course not admitted its failure even though the fixed call and other poor outcomes have been happening under its recent watch).

The answer from Ofcom seems to be four strategic objectives (conclusion para 7.11). These will generally assist in more areas than basic calls and line rental. However there is no clear strategic change provided that will cause immediate strong effects on the line rental and fixed call prices. Easier supplier-switching (one platform for change touted by Ofcom) is bound up with tariff bundling and retail freedoms, and might not help significantly. Customer switching is related to broadband and total monthly access charges, not telephony and line rental. A new approach may become clearer in the next narrow band market review. The Wholesale Local Access market may address line rental costs and copper unbundling but the issue is in the downstream retail markets (where regulation is much less), not directly in the wholesale market. The outcomes should be considered as a priority in the narrowband market review. Again this demonstrates that market competition can give outcomes that are not necessarily predicted or wanted by regulators or by end users.

2.8 Pricing flexibility

An important strategic point is essentially a no change policy (conclusion 4.46). Ofcom intends to continue with pricing flexibility for fibre and superfast broadband. This allows some freedoms for BT to set prices. With Equivalence to the rest of BT this helps ensure cost recovery, investment and not overly high prices. Of course downstream buyers will want lower prices and some will have pressured for more strict cost-based calculations. Also cost-based price controls become almost unavoidable in a fully separate Openreach (which might have reduced prices and been behind some BT-split supporters' thinking). Ofcom has clearly also had to consider other fibre-investment companies and the encouragement of more fibre investment. Very low priced wholesale services undermine this.

This shows that Ofcom has not been persuaded by some parties to be deflected from its past course. It also shows that there is a balance to be made. Low prices are good, and low prices are bad. It depends what party you are and what you need to achieve. This is fundamental and relates to the need to define the vision in the strategy. Ofcom has stated that it seeks investment and competing fibre networks. Very low wholesale prices do not encourage this outcome. If the desired outcome was cheapest possible broadband and service-level competition then of course the approach would be different.

[14] The trends were obvious for a long time and the dangers should have been seen. Ofcom's late reaction and leaving all retail actions to the industry for so long, which collectively raised prices, is shown to have been wrong. It should not have taken until the DSR consultation to see that trends were adverse to basic POTS customers – "any" industry expert has been able to see this

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There is no perfect approach that will satisfy everyone. The Ofcom approach is arguably reasonable and fits with the functional separation model. It would have been less appropriate under full separation.

After the publication of the strategy, Ofcom issued a consultation on a bottom up model of the costs of the BT FTTC solution. The use of such models is usually to define cost-based prices. However it is possible that the modelling is “simply” to give insights to the cost base – Ofcom rightly should fully understand the technical and financial basis of what it regulates. This might still allow BT to have price freedom and the model is used for checks or adjustments – in this case the modelling project is not clearly a reversal of the policy of allowing pricing freedom. However it does start to give some concerns for those who prefer pricing freedom over bottom up models – could Ofcom use the model to go to some cost-defined price? Other Telzed work and past work by the author of this report, show that bottom up models can certainly be very useful, but there are a number of major concerns and dangers with them (please contact Telzed for more information on this).

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3 Summary and conclusions

This Telzed report has commented on some of the key initial conclusions, with a focus on the implications and deeper messages, rather than trying the summarise the conclusions themselves. Many conclusions are not commented on in this report. Many of the Ofcom conclusions are not radical or they may even state no-change is required from current approaches. This is not inherently bad. Ofcom should have been expected to be doing many things about right. A number of changes are however much more profound, and many of these may be welcomed by some parties. For example, a vision has been defined and this is a significant step.

The Ofcom statement has *initial* conclusions. It is reasonable to expect more details and some refinement. It is not reasonable however to expect a major re-think – for example to now favour a split BT after a few more months of industry lobbying.

A significant number of the strategy's threads are not fully defined. Of course any initial strategy cannot cover the details of the implementations (these details are not part of a *strategy*). However details do count and these will not become apparent until later in 2016. A number of critical developments are underway or will be carried out. These include:

- The government consultations on the USO. This of course affects the regulation and how it is implemented by Ofcom. Directly related to this is the big issue of government funding for the USO (if any)
- The UK Government's reform of the Electronic Communications Code issued in February
- BDUK developments. A new funding method was consulted on in Jan/Feb 2016
- The business connectivity market review. This is interesting given Business Connectivity Market Review consultation of May 2015 that stated "*We do not propose to require BT to provide access to its ducts. We consider that any additional benefits that we could achieve in this review by requiring that BT provides access to its ducts as a remedy to its SMP in leased lines are likely to be limited*." This was justified in the final review statement on the grounds that the strategy's remedy of duct access was intended to be for mass-market deployment and not aimed at larger business access. There may be some further disputes over what is a mass-market and how some businesses within such a mass-market deployment are acceptable fro duct use but others are not
- A significant amount of detail should come out of the Wholesale Local Access (WLA) review that covers: "*enhancing and extending minimum standards for Openreach… and … This year we will also seek to introduce rules to incentivise Openreach to go beyond minimum standards and deliver better service*." This will cover the duct/pole issues
- Ofcom "*will consult on proposals to streamline and update the General Conditions by summer of this year [2016], and finalise proposals by spring 2017*." This is suggested to try and reduce regulation
- Ofcom will publish proposals on mobile switching in the first half of 2016, and will consult on "*potential improvements in the ease of switching triple-play services*

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(landline, broadband, pay TV) in 2016, based on research on consumers' experiences of switching these services."

- Ofcom should address the fixed voice concerns in the "*review of competition issues in traditional telecoms services, including voice telephony*" - the Narrowband Market Review

- The USO work has to be linked into the planned Ofcom review of *"…the small market where local loop unbundling of BT's copper cables is not economically viable and superfast broadband is not yet available – the Wholesale Broadband Access Market Review*." This should also cover issues of dark fibre and VULA. Though these do not seem to be major issues in the strategy. Ofcom has not placed emphasis on dark fibre mainly from technical problems (BT's approach makes it difficult) and because Ofcom sees fibre investment as the key strategic direction – a technology basis that many will agree with (and some will not, of course!).

Moving forward, more details and solutions will be developed in the above (and other) programmes. A significant amount of work is scheduled for 2016.

Perhaps the key area to develop will be the new governance and new structures/processes in Openreach. Much will depend on how this is done, including the individuals who form the governance team. Governance will need to take a very strong position with BT downstream, Openreach and other service providers. The alternative service providers often have diverging needs and pressures that will be placed on the new Openreach (and on the governance team). The degree of independence of the governance from Ofcom and the parties will need to be clarified.

It is reasonable to conclude that the Ofcom strategy is mostly a sensible and reasonable approach. It has addressed many of the concerns raised in the DSR consultation. Of course the outcomes do not agree with every submission (which is to be expected). The Ofcom approach has answered many (but not all) of the concerns raised in the Telzed submission. One missing part in the Ofcom statement is how, or even if, some additional balances are to be given to the new fibre investor to make a viable business case given the advantages BT has when it makes its FTTC investments and makes upgrades to copper such as G.fast. This should give some more chance to increase the predicted fibre investment coverage above the predicted low values given in the Ofcom conclusions.

The strategy has a number of detailed points that show gains and threats for all parties (though mostly there should be gains for the end users). For example:

- BT did not have full separation recommended and avoided the likely fight in courts or with the CMA

- BT gained from having about as limited a change to Openreach and its governance as most observers might have expected. It was obviously going to be harsher than today

- Other players gain from hopefully better services from the new Openreach structures and processes. They gain more infrastructure access to build with – for use to customers and for internal-network use such as mobile base station backhaul

- Other players lose from now being put on the spot – invest and build. This might not have been what some really wanted or expected (they may have really wanted a newly split Openreach to build and invest and then they would buy in the cheaper services)

- Business-focussed operators gain from better access rights to build to the customers, but this may be countered by less access to some higher level services such as leased lines
- BT may gain from having to provide less of the higher level services such as VULA or leased lines in some areas
- BT may ultimately lose from having competition at the very lowest level (low value is locked into BT-supply of ducts or dark fibre compared to higher level bit stream type services). But, it only loses if the other operators do actually build.

Some the net outcomes are quite complex to foresee but various gains and losses can certainly be seen, depending on the party and the subsequent actions.

The strategic outline is mostly clear. Now everyone can now look forward to, and get involved in, defining and implementing the details. New or altered strategies will surely be needed by some service providers.

Please contact Telzed for further advice and help with issues relating to this report. Please see the Telzed web site or contact the author for other consulting services

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