Consultation response form

Please complete this form in full and return to WFTMR@ofcom.org.uк.

Consultation title	Copper retirement – process for determining when copper regulation can be removed
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Ofcom Consultation: Copper retirement – process for determining when copper regulation can be removed

Response from the Scotland 5G Centre, in conjunction with University of Strathclyde

(Prepared by Dr Greig Paul)

We understand that Ofcom, acting with regard to the UK Government Statement of Strategic Priorities, seeks comment on their approach to regulating the transition from the copper-based PSTN network to a full-fibre, IP-based telecoms network, and that much of this work will be carried out by BT, a provider holding Significant Market Power (SMP) per the Wholesale Fixed Telecoms Market Review.

In outline, we **broadly support Ofcom's proposal** to wait until after the publication of the WFTMR statement before defining the circumstances in which the definition of a "completed ultrafast exchange" can exclude premises. We do raise a few concerns however, as to how this process be carried out, in order to ensure that Ofcom's primary goals here are successful, and to attempt to minimise exacerbating existing, or introducing new, inequalities in connectivity in the UK.

The main reason we support delaying this decision is that it is, as of yet, unclear what the impact of such an "exclusion" decision would be on premises which were excluded from the definition of "completed", when such a decision would permit the switch-off of copper with premises unserved.

It is most likely that **the premises this impacts will be almost invariably rural premises.** These are also the same areas which also struggle with poor mobile connectivity. Therefore the USO approach to delivering a service may not be a feasible solution, since these premises are likely to already be outside the coverage of mobile networks. We recognise that Ofcom faces an inherent challenge around supporting the replacement of a universal service with one which may well not be universal, and think this is a wider topic that should be looked at during the formation of Ofcom's definition of circumstances (if any) under which an exchange can be deemed "completed" while premises are not connected.

The Scotland 5G Centre has an interest in the improved roll-out of full-fibre connectivity nationwide, since fibre is the ultimate underlying enabling technology for mobile networks, and therefore more widespread fibre deployment yields more potential for the growth of 5G networks, and a resulting improvement in the commercial case for delivery of better mobile coverage for everyone.

Impact on Public Safety

Our concern with designating any premises as "**excluded**" is that the **impact on individuals living in these premises will be significant, and potentially disproportionately disadvantage them**. To date, high speed broadband roll-out has been mostly market-driven, with publicly funded works to accelerate the spread of this connectivity. The broadband roll-out has, until now, been about giving something new.

In this case, the copper switch-off is inherently different – **it is about taking away something that people currently have – the ability to call 999 for help when they need it**, the ability to be in contact with friends and relatives, and the ability for other wider public policy priorities to be delivered (including helping the elderly to live safely in their own homes). The copper switch-off will, for "excluded" premises, **potentially remove access to voice telephony services**, as well as other services which depend on them, including home care and alerting systems. Allowing a provider to terminate access to these services **could lead to vulnerable individuals being completely cut off** – they may not be actively engaged with the telecoms market, or understand the change. They may not subscribe to any broadband service at present, or have any interest in it.

There is also the risk that individuals relying on copper-based phone services in remote locations, and at risk of having their premises requested as "excluded" may be those who are already digitally isolated, and whose voices are unlikely to be heard by online consultation or engagement processes such as these. It may be beneficial for Ofcom to **work closely with the relevant local authorities to better understand the local context** in areas where Openreach wishes to have premises declared as "excluded".

Nonetheless, the Covid-19 pandemic has showed the importance in being able to reach people by phone – one local authority found that when shielding began, they only knew about 5% of the people in need of their support – the other 95% (18,000 people) were suddenly in need of council support, and were not previously known to the council. **Often telephone was the only way to reach these residents, since 40% of them were not online**. There is also significant important value in people being able to stay in touch with friends and relatives, which must not be forgotten.

Impact on Rural Communities

Some of the **most rural areas of the UK, with the worst mobile and fixed line connectivity are in Scotland**. Indeed, the Orkney Islands have the poorest 4G indoor coverage of any local authority in the UK. They are also joint second-last for Ultrafast broadband availability (tied with the Shetland Islands), second only to the Isles of Scilly.

We are **particularly concerned that there is a risk that some parts of the country will continue to be "left behind", even with incentives in place**, and that for some rural areas like the two groups of Scottish Islands outlined above, there may be a temptation for Openreach to cover the major population centres and seek Ofcom's agreement to consider the rest as "excluded" for commercial reasons. We hope Ofcom can use a suitable, pragmatic and dynamic definition of "excluded" to prevent this from happening on a systematic basis, as we see today with copper speed improvements in some areas.

There is precedent for carrying out more localised public information interventions – the Channel 5 roll-out (in 1995) involved door-to-door re-tuning support teams, to help people get access to the channel if they used an RF connection cable to link their VCR to their TV, since Channel 5 was to broadcast on the same frequencies commonly used for VCR connections.

In the event that Openreach wishes to seek Ofcom's permission to declare premises "excluded", we believe this should be a significant step with significant burden, leading to direct local engagement with the local authority and local civil society organisations and charities in these areas, perhaps on a similar scale to the Channel 5 roll-out, **to ensure all users of phone services understand what is happening, and are not simply being presented with a problem they don't know how to resolve.**

Impact in event of Power Outage

After a copper switch-off, there is a risk that properties may be left without the ability to make phone calls in the event of a power outage of longer than an hour. While we note that many users are themselves currently unable to do this, as a result of relying on cordless phones whose base stations rely on mains power, this is generally viewed as bad practice, and the public are generally advised to have a "backup" traditional line-powered handset for emergency use.

For people in some of the most rural areas of the country, power cuts are more common, as a result of the challenging weather conditions. **One of the impacts of a power cut in an area is the relatively rapid loss of mobile phone service in the area** – as seen in the London power outage of August 2019. If FTTP-based voice services were not to offer an equivalent level of power outage protection, much of the UK would cease to have any ability to call for help in the event of a power outage. This is a broader societal question that likely needs more research – while Openreach has previously installed battery backup units in premises for the Optical Network Unit installed on premises, these are only designed to enable making and receiving calls for "up to an hour"[1].

We would highlight to Ofcom that rural and isolated communities are likely to experience longer power outages than urban areas, and therefore this may be a more significant problem in some areas. While clearly there is a need to move forward with fibre roll-out, it is important that customers understand this change, and that Ofcom takes suitable steps to ensure the transition to fibre does not result in a **reduction in the resilience and durability of the UK's phone network for those who depend on it the most**.

We note that Ofcom's statement on "The future of fixed telephone services" from 2019[2] emphasised that "Ofcom's rules mean that phone users must receive equivalent protections, however their landline is delivered", in the context of protecting consumers and ensuring they are protected from disruption to service. We also note Ofcom's guidance on "*Protecting access to emergency organisations when there is a power cut at the customer's premises*"[3], although would highlight the importance of ensuring more than 1 hour of battery backup is available in some circumstances.

We are particularly concerned by Ofcom's approach that mobile coverage is a suitable replacement for power resilience in the landline network, since the topic of power autonomy and resilience in mobile networks is considerably lower than many would expect, as per Ofcom's Connected Nations 2019 report[4] - the **"vast majority" of EE and Three base station sites "have no back-up power**". Around half of Vodafone's sites (which are shared with O2 – the Vodafone ones being in the West of England and Wales) have four hours of back-up power, with the other half having 1 to 2 hours of power

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[1] https://www.bt.com/help/landline/fibre-home-phone-service--questions-about-the-battery-back-up-un

[2] https://www.ofcom.org.uk/__data/assets/pdf_file/0032/137966/future-fixed-telephone-services.pdf

[3] https://www.ofcom.org.uk/__data/assets/pdf_file/0016/123118/guidance-emergency-access-power-cut.pdf

[4] https://www.ofcom.org.uk/__data/assets/pdf_file/0023/186413/Connected-Nations-2019-UK-final.pdf

autonomy. **The majority of O2 sites "have no protection, with an unspecified number of larger coverage sites having 10 minutes".**

We believe that this is particularly relevant for Ofcom's consideration when considering the process for declaring premises "excluded" under the fibre roll-out.

Impacts on Value for Money

In July 2018, Clive Selley, CEO of Openreach warned that the switch from copper to fibre broadband would raise bills by "around £60 a year"[5]. We believe that imposing a £5 per month increase to bills may well be unfair and disproportionate if this was to also apply to those not looking use a broadband package in excess of 80 Mbps or thereabouts – packages which are successfully delivered to homes over copper at present, or for those currently only using PSTN voice products. There is no market-driven need in these cases for users to upgrade from copper; the upgrade is for the convenience of the operator, and therefore users should not be impacted by a commercial decision being taken by an operator with SMP – there is likely no alternative provider in many of these areas. We believe that Ofcom's regular price control regime ought to be able to handle this, but would emphasise the importance of ensuring consumers are not detrimented as a result, or expected to bear the costs of something which ultimately saves Openreach money.

Ofcom should review the value for money offered to the public purse by any incentives it plans to offer Openreach – it is not clear that incentives will address the issue, and could actually hinder competition in some rural areas, for reasons outlined below.

One other concern we have around value for money is the value for money for customers, in light of this consultation, is the scenario where Ofcom could grant permission to Openreach for the copper charge control to be lifted, as intended by this consultation, but which would not result in the increased adoption of fibre as expected. As Ofcom's research[6] has previously pointed out, many customers are not market-aware or regularly changing supplier. This is particularly true for those using a phone line only for PSTN service. We

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[5] https://www.telegraph.co.uk/news/2018/07/17/copper-internet-cables-will-switched-improve-broadband/
[6] https://www.ofcom.org.uk/__data/assets/pdf_file/0020/117074/Qualitative-end-of-contract-notification-research-July-2018.pdf

are concerned that some customers could slip through the gaps, and end up forgotten and left on price-uncontrolled copper products for a potentially indeterminate period of time, were an exchange not declared "complete", and no further action to take place to protect consumers.

We recognise that these are complex topics, and think that it may be helpful for Ofcom to work on producing and publishing more consumer-focused

Impact on Market-Based Competition

Independent network operators have been rolling out fibre networks throughout the UK, in many cases winning open competitive tenders in favour of Openreach, as a result of the better value for money they offer, when their bids are assessed.

There is potential for **both Ofcom action and inaction on the matter of the copper switch-off to lead to an impact on competition**, and therefore we raise this concern to ensure Ofcom can consider these aspects when producing their final process to which this consultation pertains.

Our specific concern is that if Openreach is able to avoid delivery to premises on basis of being "unviable" to reach, while connecting the less distant premises in the same area, this will ultimately lead to the more distant premises being unaffordable to deliver by any operator, and thus lead to a **poorer outcome for all concerned**. It seems reasonable, when regulating the replacement of a universal service, to apply suitable market incentives to attempt to ensure supply to as many premises as possible.

We propose that, to help Ofcom reduce the number of premises being declared excluded, it may be beneficial to consider options to "bundle" premises into small localised "lots", such that for Openreach to be able to switch off their copper service to commercially attractive localised cluster of premises, it must also deliver fibre to a selected group of other premises that would not, on their own, standing individually, be desirable to reach.

This will clearly not address the challenges in some of the most rural and isolated parts of the country, but we believe it may well help to prevent a **sparse, but nationwide, spread of isolated premises** from forming – we believe this to be the worst-case scenario, and one which Ofcom should seek to avoid where possible. Targeted publicly-funded interventions can gain economies of scale and deliver effectively to localised "bubbles" of

unconnected premises, but will likely fail to deliver to isolated "one-off" premises, if they are allowed to be passed by during the main build-out.

Conclusion

We support Ofcom's outlined plan to delay their decision on how to define sites which can be excluded from the definition of a completed ultrafast exchange. We hope that Ofcom will, when later considering how to define this, take into consideration factors including:

- Whether there is a need to agree to permit any such exclusion to take place at all, taking into consideration the local area, capabilities of technology at the time, and the number of premises (both locally and in aggregate) which Openreach is aiming to have excluded.

- Ensuring that Openreach does not build out across large numbers of areas, **systematically ignoring premises they find commercially unviable to connect** (creating a "scorched earth" scenario which prevents rivals from gaining any economies of scale), especially in areas where a smaller rival or community-based operator would agree to carry out connections to these "excluded" premises on their normal commercial terms.

- **That mobile phone connectivity is often not a suitable alternative to a landline** in large parts of the UK, including the Orkney Islands, the UK's worst-connected by indoor 4G coverage rankings. As the 2G and 3G networks are switched off by operators in the coming years, we must ensure that those in rural areas are not left completely disconnected as a result of Ofcom not joining the dots between mobile and fixed connectivity regulation.

- That fibre networks offer **significantly reduced ability to use the phone network in the event of a power cut**, and that in more rural areas it is already more common to have more, and longer, power cuts. When approving copper switch-off, perhaps by excluding premises in these areas, consideration should be given as to whether FTTP is sufficient.

- That **the elderly, vulnerable, and those not engaged with the telecoms market may be put at particular risk by these changes**, and Ofcom should have a duty to work closely with local authorities to ensure people are not put in harm's way, or left disconnected, simply because Openreach wishes to turn off its copper network without providing a suitable alternative connection to a premises. Past privately-funded broadband roll-out work has focused on adding capabilities, **but the copper switch-off is about taking away something people have and rely on as a lifeline service**.

- That Ofcom **liaise closely with local authorities when considering excluding premises**, to prevent premises being needlessly excluded by any set of fixed criteria (such as distance, fibre length, or access type), and to **ensure that alternative deployment models can be considered in areas where this may happen**, including using other Government funding schemes to procure 100% premises coverage from an alternative or independent network provider, which would not be feasible if only the unattractive premises were left unconnected by Openreach.