

Proposed guidance consultation

Question

Your response

Question 1: Do you consider the measures in the proposed guidance relating to the resilience of the physical infrastructure domains to be appropriate and proportionate?

Upon review, in principle, some of the measures proposed appear reasonable. However, with some other measures outlined, the requirements are unreasonable for Altnets such as County Broadband. It's unfair to make a direct comparison of their resources, infrastructure, and locations to the larger providers, and in one case within the documentation, the stated requirement is to provide the same level of power backup as the National Grid, which is not operationally or commercially feasible.

The regulator needs to be cautious that the telecoms industry isn't held responsible for the failings of businesses within the energy industry. Currently battery backup or generator backup is incorporated into fibre cabinets or fixed wireless access sites, at a level that is feasible / reasonable for an Altnet to achieve.

Regarding resilience at the physical datacentre itself, when smaller providers enter the datacentre market, they can only provide battery or UPS backup for what:

- a) They can afford; and
- b) That fits within the constraints of the physical rack units they occupy within the centres.

It should be down to the datacentre provider, rather than the individual telecommunications provider, to be responsible for the main power input into the buildings that they already pay in to in terms of site fees each month. To suggest that individual service providers should each be required to provide 5 days' worth of uninterrupted backup power supply is unfair for the smaller providers as:

- A) The cost of sourcing such power backup would likely be high; and
- B) The availability of multiple power companies for the power within the data centre would likely be very restricted; and
- C) If there was a non-mains powered backup option, it is highly likely that there would need to be service interruption in between changing those supplies over at regular intervals for maintenance.

With around £20bn of independent funding in the telecoms industry being invested in AltNets, the regulator needs to consider that some altnets specialise in rolling out full fibre broadband to "hard to reach" areas that have been deprioritised or ignored by the majority of telecoms providers.

Getting service to those hard-to-reach areas is often difficult / costly enough, that larger providers / OR will not build there. This inherently means that the cost, feasibility and geographical availability of getting secondary power supplies into the same area is difficult. This same principle applies in terms of power redundancy.

Question

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Surrounding the several mentions throughout the document of redundant links, at which point does Ofcom consider a link “resilient enough”? There are some cases in the document where triplicate links are mentioned, whereas an availability target would be more appropriate, allowing the CP to design an appropriate level of resilience. As mentioned previously, this may be feasible for larger providers, with hundreds of thousands or millions of premises passed, but not for the smaller providers.

Does Ofcom envisage having a set criteria for amount of backup links / measures required? I.e a threshold?

In 4.58 it is not true, nor appropriate to compare altnets (with thousands of homes passed) with larger providers with millions of homes passed.

An additional consideration on supplying backup power for physical infrastructure, whether by means of generator or batteries, CPs would also need to provide as the appropriate security for those assets, given the costs and logistics of replacement if they are subject to theft or vandalism.

Question 2: Do you consider the measures in the proposed guidance relating to the resilience at the Control Plane to be appropriate and proportionate?

On point, 4.6.3.c – This is not always easy for Altnets compared to the larger or more urban providers.

4.7.1-3 focuses on user experience as well as lost hours. For an Altnet, the focus should be on keeping the consumer online during periods of power disruption or outage, especially for emergency calls, rather than maintaining the level of service. Some temporary degradation whilst a permanent solution is sought should be accepted by Ofcom in those circumstances.

4.75 the example used wouldn't of happened if there wasn't too much resilience provided. The extra routing appears to have made things too complicated so doesn't really validate the cause for having too much resilience in the control plane.

Question 3: Do you consider the measures in the proposed guidance relating to the resilience of the Management Plane to be appropriate and proportionate?

Yes, OOB avoids customer and management traffic from colliding / having same strain if the link providing that traffic is suffering.

Ofcom recognises the expense required, but Ofcom should recognise that the impact of the cost will be more significant for smaller providers than for larger providers.

Question 4: Do you consider the measures in the proposed guidance relating to communications providers' own managed services to be appropriate and proportionate?

No comments.

Question

Your response

Question 5: Do you consider the measures in the proposed guidance relating to communications providers' arrangements for preparing for adequate process, skills and training to be appropriate and proportionate?

Surrounding point 4.122, what happens if a provider chooses against automation options and instead opts for manual interventions? This may be necessary or more appropriate for smaller ISPs.

Additional Comments surrounding the proposals – (Of all segments covered in questions 1-5)

Throughout the consultation document, there appears to be acknowledgement from Ofcom surrounding the costs that would need to be incurred by the providers to roll-out and manage these extra provisions on the networks. However there appears to be little consideration that the impact of these costs would have on smaller providers.

The consultation, despite several points stating that altnets were considered seems to have been considered with only the larger providers in mind. What was the cross section of Altnets included in Ofcom's research and what was the average number of homes those providers have passed, as well as their customer base?

Additionally, there are references to "resilience" throughout the document, but there needs to be a firm definition throughout that specifies what level Ofcom is envisaging and takes account of the different environments of telecoms networks, e.g. rural vs. urban. For example, for the larger and/ or urban providers, they may be able to cost effectively provide a backup service to a location that has its own diverse routing and has enough capacity to allow all the services running on that line to operate at their usual capacity, indicating no issues with service to the consumer. However, the smaller and / or rural providers, which, as mentioned account for £20bn worth of investment in this space may not be able to cost effectively provide an essentially, "mirrored" backup line in every location that they have a cabinet presence. It is often difficult to reach the most rural of locations to place a cabinet and provide service, sometimes with only one, maybe two viable routes to provide the backhaul. Even in those cases where a second option is available, it may not be commercially viable to provide resilient capacity on a second line to match that of the main line, thus providing a resilient service for each consumer.

The larger providers should, where possible, be required to provide resilient capacity to cabinets etc that will provide the same level of service to consumers, however the smaller providers should be allowed to provide a commercially viable level of backup backhaul, which will mean customers can remain online (with ability to use their services in emergencies) and basic functionality whilst the main link is being repaired. Individual providers should then be able to appropriately handle / compensate those customers impacted.

Call for Input

Question	Your response
CFI question 1: Does this framework accurately capture the factors relevant to assessing what is an appropriate and proportionate measure for MNOs to take with regards to power resilience for RAN cell sites?	Confidential? – Y / N
CFI question 2: Do you agree that at a minimum MNO’s networks should be able to operationally withstand short term power-related incidents?	
CFI question 3: What mobile services should consumers be able to expect during a power outage, what consumer harms should power backup up focus on mitigating and does this vary depending on the type or duration of the outage?	
CFI question 4: What technical choices are available to MNOs to reduce power consumption, and should be considered as part of assessment of appropriate and proportionate measures?	
CFI question 5: How many sites would it be feasible to upgrade and maintain and why?	
CFI question 6: Do you consider that providing a minimum of 1 hr backup to all RAN cell sites would be proportionate to meet the security duties under s.105A to D of the Communications Act 2003?	
CFI question 7: What cost effective solutions do you consider could meet consumers’ needs during a power outage?	
CFI question 8: a) Is it more cost efficient to increase power backup up to any space, weight, or planning limitations, i.e., increasing power backup as much as is feasible provides the lowest £ per hour? b) do the benefits of any power backup solution have diminishing returns, i.e., the benefit per hour decreases as you increase the amount of power backup?	

Question

Your response

CFI question 9: Does the mobile market fail to capture the value or importance of power backup, and if so, why?

CFI question 10: Should improvements in power backup be focused on solutions at sites which are identified as higher risk of outages?

CFI question 11: Why would any requirement lower than a minimum of 1 hour be sufficient in future? What duration do you consider would be sufficient and why?

CFI question 12: Over what time period could industry make upgrades to provide a minimum of 1 hour at every cell site or other cost-effective solutions to address potential consumer harm?

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