

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?

Confidential? – N

Introduction

ISPA is grateful for the opportunity to comment on Ofcom's Resilience guidance consultation. Our response does not specifically address Mobile RAN power back up, but we believe that there is a strong level of interdependency between resilience on the fixed and mobile networks and we touch on this below.

ISPA agrees that given the critical nature of telecoms, network resilience is of the utmost importance to both businesses and consumers. We expect that the sector will already be compliant with the core aspects of the proposed guidance. We also welcome the fact that the guidance, in general, provides members with flexibility in how they can achieve the intended aims. The primary concern of the guidance should be to ensure that operators minimise network disruption that has a significant impact on a significant number of customers. The key test that should be met during any enforcement activity should be that providers have taken reasonable and proportionate assurance approaches based on their respective network designs.

There are a number of areas where we believe further work is needed to ensure the guidance is workable and effective:

1. Ofcom should adopt a more holistic approach to resilience;
2. Ofcom adopt a more consultative and agnostic approach to developing, presenting and implementing resilience guidance; and
3. Ofcom should fully commit to an outcome-focused resilience guidance

Additionally, we are concerned that some of the proposals, e.g the 4-hour battery back-up requirement are not sufficiently supported by evidence. Given the significant costs associated with these and other power back-up requirements, we would urge Ofcom to produce a stronger case for why a backup of X hours is deemed necessary at different parts of the networks.

Ofcom should adopt a more holistic approach to resilience

We believe that there is a strong rationale for adopting a more holistic approach to network resilience. This should look at individual telecommunications networks in the context of a) the strong reliance of the telecommunications sector on the UK power network; and b) the fact that in most areas of the country multiple fixed and mobile networks are available, with most customers having access to both mobile and fixed connections. Doing so would also help to limit the environmental impact.

While we accept that our members need to carry the primary responsibility for ensuring that their networks are resilient, we are concerned that insufficient attention and priority is placed on the dependency of our sector on a robust and resilient electricity network. While we understand that work is underway to improve resilience at electricity Distribution Network Operators level (DNOs), we are concerned that current cross-sectoral regulatory efforts are not sufficiently joined up, leading to a sub-optimal distribution of costs. DNOs should carry primary responsibility for ensuring a continued power supply, and we strongly believe that the current direction of travel will put a significant and disproportionate cost burden on the telecommunications sector, and indeed other sectors of the economy that are facing the externality costs of poor resilience in the power networks. More broadly, there is a need to ensure that communications providers are considered priority users in the event of power shortages and we urge Ofcom to support the sector in achieving the right level of support.

We further believe that more attention should be placed on the fact that most customers in the UK have access to, and are indeed customers, of both fixed and mobile operators. This does not only reduce the real impact of individual network outages, but it also calls into question the universal requirement for power backup in fixed access networks if Ofcom introduces additional power backup at the mobile RAN.¹

¹ We accept that Mobile RAN will not be a sufficient back-up in all cases and especially for businesses that rely on high-capacity connectivity to undertake BAU tasks.

The current direction of travel suggests a greater reliance on battery and fossil fuel based power backup across both fixed and mobile networks which would have significant environmental impacts (as well as knock-on costs for providers from increased environmental compliance elements e.g. permits, emissions allowances etc) and we strongly believe that these impacts and costs should be taken in Ofcom's impact assessment of power back up requirements in the telecoms network.

Ofcom should adopt a more consultative and agnostic approach to developing, presenting and implementing resilience guidance

Many of our members have raised concerns about the lack of prior engagement ahead of the publication of the guidance and we believe that this is also reflected in how the guidance is drafted. We fully accept that it is not possible to address the full variety of network architectures that have been deployed in the UK, but the current approach still leads to unintended consequences.

When it comes to network-level interventions, it is critical that the remedies take into account the wide variety of unique network architectures and sizes of network operators within the market. Yet, at a minimum, the current approach increases the compliance costs of networks with alternative architectures as providers need to translate the language and concepts used in the guidance to make it applicable to them. However, there are some cases where the more specific requirements in the guidance, e.g. in relation to some Core/Metro and Access/Last Mile requirements do not capture the reality on the ground and could lead to significant cost burdens for parts of the sector without the intended benefits of achieving added resilience at the customer level.

We leave it to our members to provide specific examples, but points that have been raised include that it is important to recognise that there is significant variation in the number of customers connected to an active cabinet – some networks will have many customers connected through a cabinet, but others will have (at most) a few tens. There is further a large degree of variation in the design of Core/Metro networks; and dual redundancy requirements in rural Aggregation/Backhaul networks are unlikely to be effective and proportionate in all cases. The suggested upgrade requirements for active cabinets, especially if implemented with the limited 5-year exception, could also lead to significant cost burden for parts of the sector as several providers have deployed cabinets that do not have sufficient space for large batteries required, thereby leading to an expensive full replacement programme.

Ofcom should fully commit to an outcome-focused resilience guidance

While the guidance is generally outcome-focused, there are several areas where Ofcom proposes very specific requirements, e.g. in relation to battery back-up for active cabinets, dual resilient mains electricity power feeds at Core/Metro level, or dual redundancy requirements in rural Aggregation/Backhaul networks. We believe that such solution-focused approaches to drafting regulatory guidance should be avoided more generally, but this becomes particularly important in a diverse sector such as telecommunications. The primary concern of the guidance should be to ensure that operators minimise network disruption that have a significant impact on a significant number of customers, yet by including specific requirements, the guidance risks a suboptimal allocation of resources across the network. We strongly urge Ofcom to adopt a regulatory approach which encourages providers to implement proportionate measures which achieve the desired resilience outcomes.

Conclusion

While we largely support Ofcom's approach, we strongly urge a reconsideration of the more solution-focused aspects of the guidance alongside a concerted effort by Ofcom to engage in developing a cross-sectoral approach to resilience

Question

Your response

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

There seems to be a degree of overlap with the Telecoms Security Act and we urge Ofcom to adopt a coherent approach and to provide assurance that it is not planning to run two parallel monitoring and enforcement programmes covering the same issue.

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

There seems to be a degree of overlap with the Telecoms Security Act and we urge Ofcom to adopt a coherent approach and to provide assurance that it is not planning to run two parallel monitoring and enforcement programmes covering the same issue.

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

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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?

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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?

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Question**Your response**

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?

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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?

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CFI question 5: How many sites would it be feasible to upgrade and maintain and why?

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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?

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CFI question 7: What cost effective solutions do you consider could meet consumers' needs during a power outage?

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CFI question 8:

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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?

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

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

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Question

Your response

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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