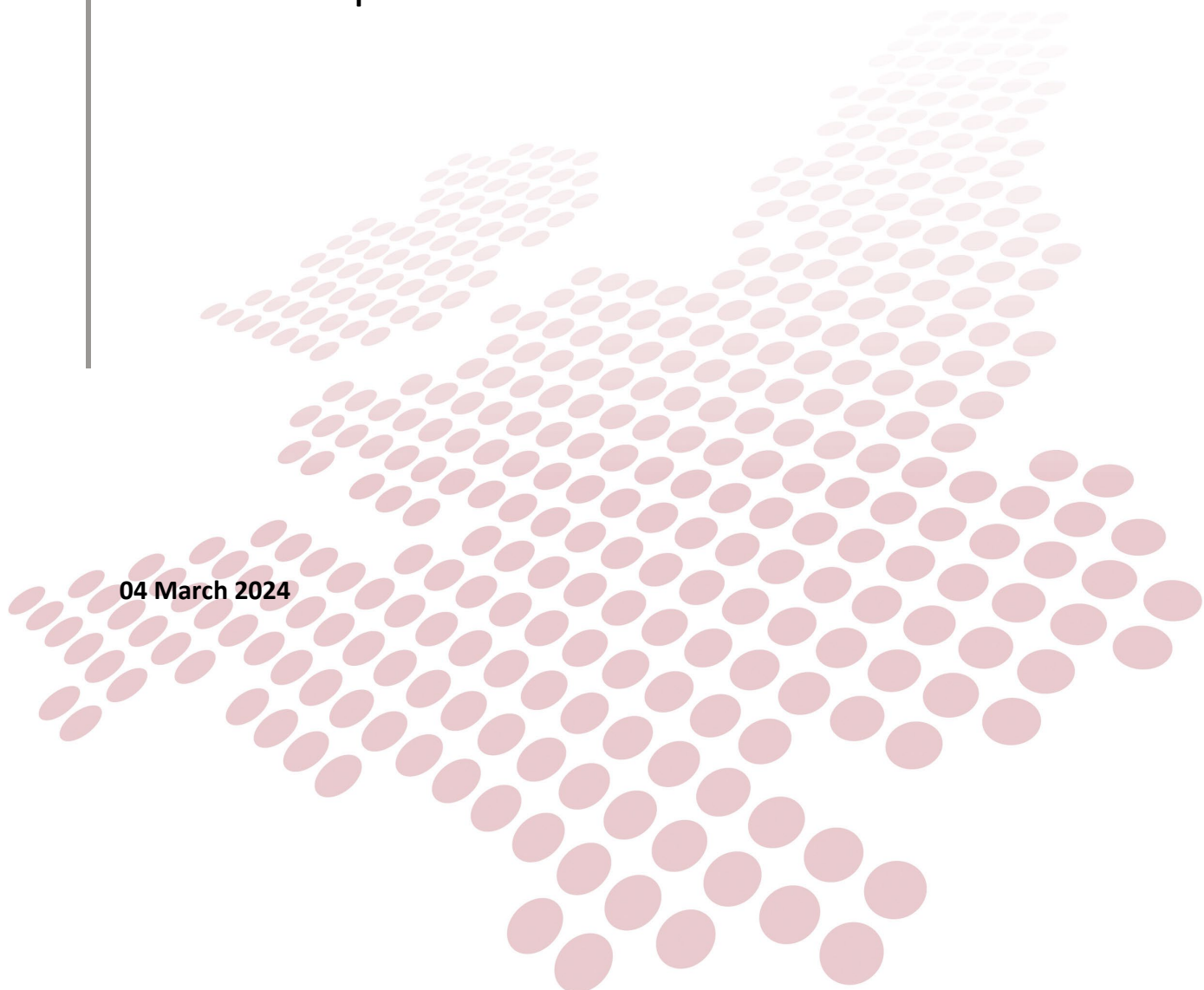


Ofcom's Resilience guidance consultation
and Call for Input on mobile RAN
UKCTA Response

04 March 2024



Introduction

1. This submission is made by the UK Competitive Telecommunications Association (UKCTA). UKCTA is a trade association promoting the interests of fixed line telecommunications companies competing against BT as well as each other, in the residential and business markets. Its role is to develop and promote the interest of its members to Ofcom and the Government. Details of membership can be found at www.ukcta.org.uk. Its members serve millions of UK consumers.
2. UKCTA is grateful for the opportunity to comment on Ofcom's Resilience guidance consultation and Call for Input on mobile RAN power back up.

New Draft Resilience Guidance

3. UKCTA members are grateful to Ofcom for publishing guidance to help them assess their individual approaches to compliance in respect of network resilience. While publishing overarching guidance is helpful, it is limited by its need to cover a range of different circumstances, network architecture, topologies and customer and Communication Provider situations.
4. Ofcom must be mindful during any enforcement assessment process that the key test that should be met is that communication providers are able to demonstrate that they have taken justifiably *proportionate* measures to assure their network. There are no one size fits all situations or mitigation approaches and a carefully considered case-by-case assessment is required. It is imperative that Ofcom approach this from a principles-based view of network resilience (rather than prescriptive tick-box compliance).
5. Ofcom need to recognise that networks built on resilient ring architecture principles will have a different level of inherent resilience risk compared with traditional tree and branch architecture and it is not realistic for these topologies to be redrawn once deployed. Instead, Communication Providers should take sensible assurance approaches based on their respective network designs.
6. Many networks are already assured to standards such as ISO 27001, or implement equivalent controls, and are therefore will be meeting the required standards expected and no additional action will be necessary.

Assuring Physical infrastructure

7. As a general rule, all communication providers seek to avoid single points of failure, however inevitably it is not possible for all such points to be eliminated in network design. In the cases where a single point of failure could impact a significant number of customers, then action is typically taken to eliminate this risk (or mitigate to the best of a provider's capability). In typical network design there is a sliding scale of resilience from network core to edge. It should be recognised that the edge of the network (including access elements) will typically carry the largest risks of failure, however by design they serve a fewer number of customers on an individual route basis. Assurance efforts are therefore typically concentrated at locations which would have largest negative customer impact should they fail/experience disruption.
8. In terms of the continuity of power supply, we believe the primary responsibility of safeguarding grid power must rest with the electricity Distribution Network Operators. We believe more could and is being done by DNOs to make the UK power networks more resilient, with the average number of grid power minutes lost per consumer dropping, with DNOs continuing to invest. The UK has a very reliable power network and while more can be done to make it more reliable, it is right this is recognised in any policy work conducted by Ofcom.
9. We would welcome Ofcom taking a more proactive role with Government and other regulators to safeguard the power usage of the UK Communication sector. We are priority users and our services are required by consumers for safety-of-life applications. A sensible approach to restoration, prioritising communication provider sites in the event of a power outage would be in the interests of all consumers and we would urge Ofcom to champion this.
10. Ofcom need to be mindful of the environmental impact of their recommendations. The widespread use of lithium or lead acid batteries and extensive use of generators should be minimised where possible and a balance must be struck between implementing sensible safeguards to ensure the continuity of Communication services, while meeting environmental standards that many communication providers are obligated to achieve. There are also knock-on implications in terms of cost of compliance under other regulatory regimes such as Emission Trading Schemes, air quality permits, and waste battery disposal which should be factored into Ofcom's impact analysis. While Ofcom may not yet have a statutory duty to consider the environmental consequences of its decision making, this is an increasingly important area for customers. Ofcom must avoid advocating an outcome that requires communication providers from overusing batteries or diesel generators.
11. Battery performance varies considerably with temperature fluctuations, with performance worst in the winter months, often coinciding with when the highest number of power interruptions typically occur. Battery theft is also a very real concern in the industry, with unmanned, remote sites typically targeted. The criminals involved are well organised and know what they are doing, often repeating their crime in a

number of locations. As is often the case, when sites are unlawfully entered (or cabinets broken into), collateral damage may occur which knocks out service. While providers are constantly seeking new ways of securing their sites, adding more batteries risks attracting more crime.

12. We do however accept that Communication Providers should take sensible safeguards, where possible, to provide limited battery back-up for active cabinets and have appropriate solutions in place for core/aggregation sites, deploying batteries and generators if appropriate. These should however be commensurate of the risks involved to avoid the financial and environmental cost of overprovision.
13. It is not financially realistic for Communication Providers to build Dual DNO power supply at all fibre exchanges/ core sites. Dual supply is often very costly to achieve and would be of limited value (it may not provide a diverse power connection in all circumstances, with load shedding or major outages taking out both routes). With the number of power minutes lost continuing to drop, this requirement would be completely disproportionate and make the roll out of some fibre networks financially unrealistic. It would be better to mitigate such risks with tactical generator deployment.

Extreme weather events

14. Vendor kit is increasingly becoming more robust and able to withstand weather. However, it is important to stress that kit is often located in exposed locations (street cabinets etc) and will not be immune from extreme weather. Communication Providers typically seek to minimise the impact of weather on their networks through careful site selection, where that it is possible (e.g. avoiding flood plains). However, we have to offer communication services where people live and work and it is inevitable that some kit will be at risk of weather events. Any guidance therefore needs to distinguish between reasonably foreseeable events and extreme scenarios.
15. We would highlight the interdependencies both within the sector and between sectors (notably the energy sector). For example, the extensive use of PIA and poles, means any poles damaged / knocked over in a storm would need to be repaired by Openreach before service is resumed. Ofcom should therefore consider what measures are appropriate to ensure a quick restoration and what level of proactive pole inspection and maintenance is necessary to minimise these occurrences. In situations where wholesale suppliers are used, it important that the focus is on owner of the infrastructure, not the purchaser of it, as that is ultimately where the accountability should rest. Providers can only assure the services they provide within the confines of their own network.
16. Likewise, all communication networks are dependent on grid power, and any power autonomy mitigation will only last for a finite period of time. No communication provider is set up to withstand a prolonged power outage without interruption to

communication services. This sector inter-dependency (as DNOs need communication services for telemetry and data/voice services) needs to be properly recognised and understood.

Management plane/control plane

17. Some of the matters raised in the consultation are issues already in scope for TSA compliance. We would request that Ofcom provide an assurance that it is not planning to run two parallel monitoring and enforcement programmes covering the same issue and a coherent approach is adopted.

RAN Battery Back Up for Mobile Networks

18. UKCTA has a primary focus on fixed networks, however we recognise that many of the issues raised in the context of fixed network resilience are common to the mobile sector (who utilised fixed backhaul and powered/active telecommunication kit at their sites). It is not always possible due to the size and location of sites for additional battery capacity to be deployed and a commercial best-efforts approach is often all that can sensible be expected (roof top and roadside locations are often subject to significant site restrictions). The environmental and practical consideration over battery use are common to fixed networks and we would caution Ofcom over the need to conduct an evidenced and comprehensive impact assessment (following their July 2023 Impact Assessment guidance) before progressing any proposals in this area.
19. With so few minutes of grid power lost on average per year per consumer, any intervention that sought to mitigate this risk must be proportionate, as absent alternative funding sources, customers will be required to fund what may be a very expensive intervention measure that provides little benefit and is disproportionate to the level risk involved.

End

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