

Response to Discussion Paper on Ofcom's Future Approach to Mobile Markets

Telecom Infra Project (TIP) is pleased to be able to submit brief comments in response to Ofcom's discussion paper *Ofcom's future approach to mobile markets*.

TIP directs its comments toward providing further context on the development of Open RAN in the UK and globally.

About Telecom Infra Project

With UK mobile network operators such as BT, Vodafone, and Telefónica (O2) at its heart, TIP is taking an innovative approach to building and deploying the technology that improves global connectivity. A community of manufacturers, software makers, network operators, integrators, and connectivity stakeholders work to make the telecom supply chain more diverse, innovative, and open, so that future digital infrastructure is brought more quickly to market for everyone.

TIP is an engineering-led organisation focused on technological solutions and providing alternative and complementary options for connectivity. One of the central components of our organisation is our TIP Community Labs - physical spaces that enable collaboration between member companies to develop new solutions. There are two TIP community labs in the UK: one in Ipswich, sponsored by BT, and another in London, sponsored by Meta.

Impact of Disaggregation

Open, interoperable, and disaggregated networks address the challenges of a consolidated ecosystem by providing network operators more choice and flexibility to improve networks at a pace that keeps up with rising demand.

Disaggregation — separating complex technologies into small pieces that can be combined in different ways — will allow for more flexible networks that let operators develop and upgrade individual components, selecting the best technology available at any point in time for each piece of a telecom network. They can choose from a wide range of software and hardware options that interoperate seamlessly, instead of having to source integrated infrastructure solutions from a very limited set of suppliers.

Separating out complex technologies and ensuring interoperability also means more companies, including SMEs, can compete in different parts of the technology stack, incentivising innovation and giving network operators more choice among both incumbent and emerging solutions. This can make the process of upgrading networks — either partially or totally — easier, faster, and more cost-efficient.

This method of development also has benefits for security by changing the development culture. Network security is best achieved from open scrutiny of development practices. Security is also enhanced by a more diverse market, as it provides greater incentives to compete on security and trust, as well as greater flexibility to mobile network operators.

Open RAN

TIP welcomes Ofcom's recognition of the industry's increasing adoption and interest in developing Open RAN. A joint ambition of 35% of the nation's mobile traffic to be carried through Open RAN is one of the most significant commitments of its type in the world. With

Ofcom's continued supportive approach to these technologies, such as through its role in SONIC, the UK will be well placed to meet these targets and capitalise on a more resilient, diverse ecosystem.

As Ofcom notes, significant work is underway to mature Open RAN deployments. TIP's participants are involved in such R&D projects around the world, including in the UK. These include participating in several successful bids into the government's Future RAN Competition.¹ Results from these bids will point the way to improve spectral efficiency, energy efficiency, security, and system integration for open network architectures.

Ofcom raises the potential for "new security and resilience challenges" that would require further R&D to address" (para. 5.40) but the statement lacks important context. Like the established vendors, each iteration of mobile technology raises potential new security and resilience challenges. Open RAN is not unique in this respect. MNOs in the UK and globally are moving forward with security at the forefront of their requirements.

The Open RAN Memorandum of Understanding Group of TIP members (OMG), comprising some of Europe's largest MNOs, have set out their detailed path toward Open RAN deployment in Europe by issuing a common Technical Priority document.² This document enumerates their technical security criteria for Open RAN deployments mapped against open industry standards, covering cloud, radio unit and distributed unit and the RAN intelligent controller and other facets.

OMG participants have also noted in other policy submissions their collective view that Open RAN's "open interfaces and interchangeable and separate components allow for more transparency and better assessment of security vulnerabilities, greater flexibility and agility where changes need to be swift and efficient".³

Conclusion

Ofcom will have an important role to play in implementing and regulating Open RAN deployments in the near future as government and industry work together to meet the 35% target. TIP welcomes Ofcom's work on promoting and reaching an early understanding of the impact of Open RAN on mobile networks and views this discussion paper as an important contribution.

A greater understanding of TIP participants' work in the field of security should inform Ofcom's approach to this technological evolution.

¹ See: <https://www.gov.uk/guidance/future-ran-diversifying-the-5g-supply-chain-competition-winners>.

² The Open RAN MoU comprises Deutsche Telekom, Orange, Telecom Italia, Telefónica and Vodafone: <https://telecominfraproject.com/openran-mou-group/>

³ *Ibid.* see: <https://cdn.brandfolder.io/D8DI15S7/at/jgrzjsgs267m6vxd55qp7/Building-open-ran-ecosystem-europe.pdf>