

Summary report on Internal Workshop on Direct to Device Satellite Communication

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1. Internal BEREC Workshop on Direct-to-Device satellite communications (28 May, 24 Sept and 17 Oct)

Direct to mobile-Device satellite (D2D) connectivity is already available in different forms, such as a capability to send SOS messages via satellite on certain newer smartphones. The use of D2D is likely to grow further in the coming years¹. BEREC has also held workshops on this topic before in 2023 and 2024 (see also [BEREC Workshop on secure and reliable connectivity from LEO satellite fleets | BEREC](#) and [BEREC external workshop about the usage of satellite technologies in mobile communications | BEREC](#)).

Different spectrum options are currently being pursued by satellite service providers in this field of communications, (i) sometimes in cooperation with terrestrial mobile network operators (MNOs) and re-using spectrum rights of use assigned to MNOs, or (ii) sometimes using the dedicated spectrum resources of mobile satellite service (“MSS”) already assigned to satellite operators. The World Radio Conference 2027 includes a number of relevant satellite Agenda Items which may result in further spectrum opportunities supporting direct to mobile-device services.²

BEREC invited RSPG to participate at an internal BEREC workshop consisting of three internal sessions on topics associated with direct to mobile-device satellite communications with a selection of invited speakers (see Annex 1.0). The discussions at this workshop are internal to BEREC however, the Agenda is now published in Annex A of this report, which serves as a guide to content discussed at the workshop.

1.1. Scope and indicative discussions

Building on BEREC’s previous work, the main focus of the workshop was on direct to unmodified-handsets (“D2D”) satellite communications and the roles and relationships of the different organisations that may cooperate in providing the D2D solutions from satellite infrastructures. In particular, BEREC hoped to identify the high-level architectures and most relevant interfaces, customers, end-users, and other relevant network elements involved in D2D services and applications.

BEREC also asked presenters to set out in their opinion, which non spectrum related regulatory functions or criteria for market access should be covered on a European wide level,

¹ More than 70 partnerships between Mobile Network Operators (MNOs) and Satellite Network Operators (SNOs) have been announced. European Space Agency and GSMA Foundry has agreed on strategic intents to foster innovation and collaboration to integrate satellite technologies with mobile 2023, and ESA and Global Satellite Operators Association (GSOA) signed an intent to strengthen the synergy between satellite and terrestrial communications players with a view to unlock new potential in 5G and 6G connectivity 2024.

² Agenda Items – 1.12, 1.13 and 1.14 at the World Radio Conference.

and which on a National level. Some speakers were also asked to identify challenges and possible solutions to issues they believed their solution faced.

BEREC also sought information about the following aspects:

- Handover between networks, (re)routing of signaling and media (generative signal routing)
- Roles of different network elements where relevant (e.g Gateways)
- Legal intercept practicalities
- End-user choices (and QoS issues), and
- Competition dynamics and cooperations.

The expert discussions were helpful to advance BEREC's understanding of the interrelated aspects. To be clear, on this occasion, BEREC did not draw any firm conclusions on direct to mobile-device services in Europe. BEREC also remains watchful of the technical work ongoing in other relevant areas such as at the CEPT FM 44, where some of the technical issues around the spectrum implementations are being advanced.

2. Next steps

BEREC aims to continue to assist NRAs reflect and brainstorm on relevant consumer, competition and jurisdiction issues, including on the aspects best suited for potential international (EU level) coordination. It is likely that another workshop, possibly internal format, will be conducted in 2026. BEREC is also mindful of the wider D2D proposition and may explore other non-terrestrial network use cases (including IoT, private networks and hybrid networks).

Annex A – Internal Workshop Agenda

Internal Workshop (series) on direct to mobile-device satellite connectivity follow-up work

Location:	By videoconference (Virtual room opens 15mins before and closes 15 mins after)
Format:	Internal workshop for peers. All sessions open to BEREC and RSPG
Dates & Times (TBC):	28 May, (TBC) 24 Sept, (TBC) (*hybrid meeting) 17 Oct, (TBC)

Rolling agenda format.

- Opening remarks by WNE WG co-chairs 5mins
- Invited speaker(s) up to 25mins
- Q&A with experts up to 25mins
- Wrap up and closing remarks by WNE WG co-chairs¹ 5mins

Indicative content for discussion

28 May

- Session 1 – Regulator view, Ofcom UK
- Session 2 – ESA viewpoint

24 Sept

- Session 1 & Keynote – RSPG
- Session 2 – Interworking between satellite and mobile networks with 3GPP NTN
- Session 3 – Europe's own Direct to Device solution, Vodafone & AST SpaceMobile
- Session 4 – How D2D might play out in the European market, Commicisive, Professor William Webb
- Session 5 – Peer exchange

17 Oct

- Session 1 - Starlink Direct to Cell Update

¹ Co-chairs may provide information about upcoming meetings in the series and identify questions and new topics to explore at future meetings where appropriate.