

Sateliot Response to ACMA's "Satellite direct-to-mobile services: regulatory issues" consultation.

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Founded in 2018, Sateliot is a Spanish company and the first satellite operator to deliver IoT (Internet of Things) connectivity through the 5G NB-IoT NTN standard, approved by 3GPP in June 2022 as an extension of the 5G terrestrial standard.

Our constellation acts as space-based cell towers, extending coverage for mobile network operators (MNOs) and offering global connectivity for devices compatible with 3GPP Release 17. Sateliot operates as an infrastructure provider, building and managing a satellite network for NB-IoT NTN coverage based on the 3GPP 5G NB-IoT NTN protocol, developed in collaboration with major players in telecommunications and IoT.

In January 2023, Sateliot was granted an Apparatus License, allowing operations within the frequencies 2005.3-2006.3 UL and 2195.3-2196.3 DL.

We appreciate the chance to share our insights on the ongoing consultation regarding "Satellite direct-to-mobile services: regulatory issues." As one of the players in the satellite communication sector, we commend ACMA for its collaborative efforts in shaping regulatory frameworks that drive innovation and integrate advanced technologies seamlessly.

In evaluating the present spectrum management framework, we believe it is imperative to take into account the following key considerations.

Bandwidth and exclusivity considerations:

It is crucial to highlight the different bandwidth dynamics when contrasting Sateliot's current services with the requirements of Direct-to-Mobile (D2D) services. Currently, Sateliot efficiently utilises a relatively small bandwidth footprint for its operations having an approach to spectrum usage that stands out in terms of efficiency. This is notably distinct from the substantial bandwidth necessitated by D2D services.

Sateliot's technology, requiring only 1MHz of bandwidth (UL and DL), presents a clear contrast to broader spectrum requirements. This minimal requirement not only aligns with the principles outlined in 3GPP Release 17 but also positions Sateliot as a proponent of spectrum efficiency. Importantly, this 1MHz bandwidth can be effectively shared among

different Mobile Network Operators (MNOs) which have roaming agreements with Sateliot, optimizing spectrum utilization and ensuring an equitable distribution of resources.

Coexistence and Quality of Service (QoS):

Sateliot advocates for a thorough assessment of the impact of new applications and services on existing ones, particularly in incumbent and adjacent bands. To ensure coexistence and maintain quality of service (QoS) for end-users, we propose the implementation of stringent technical requirements, including:

- Frequency Separation: Clearly defined frequency separation to prevent interference.
- Dynamic Spectrum Access: Framework for adaptive frequency usage based on real-time conditions.
- Interference Management Protocols: Protocols for identifying and resolving interference promptly.
- Collaborative Spectrum Planning: Involving stakeholders for coordinated spectrum allocation.
- Interoperability Standards: Contribution to and adherence to standards for seamless integration with existing services.

Future Development of MSS Direct-to-Mobile:

Looking ahead to the future development of Mobile Satellite Service (MSS) direct-to-mobile, especially for operators already licensed in Australia, Sateliot suggests a careful consideration of how this operation should be addressed within existing licenses. We recommend a transparent process for license modification, recognizing the unique nature of this new service. Such an approach ensures regulatory compliance while accommodating the evolution of satellite communication services.

Technical Parameters and Viability:

Acknowledging the significance of technical parameters, we propose careful consideration in the "2 GHz MSS technical parameters and demand considerations" consultation to safeguard the viability of NB MSS 2GHz services.

Sateliot appreciates ACMA's dedication to engaging stakeholders and upholding transparency in the regulatory process. We are eager to actively engage in discussions that foster the growth and stability of the satellite communication sector.

In conclusion, we extend our thanks to ACMA for allowing us to contribute to this consultation. Our commitment is to collaborate closely with ACMA and other stakeholders to ensure that the evolving regulatory framework aligns seamlessly with the dynamic landscape of satellite communication.