



A Consultation Paper on **Direct-to-Device Mobile Satellite Service**

Inviting public comment and input

02/16/2026

INTRODUCTION

- 1 The Telecommunication Regulation Authority (TRA) **is seeking your feedback** on whether we should amend the Spectrum Licensing Rules and the Schedule of Fees Rules to add a new category of frequency license and associated license fees, respectively, to support the introduction of direct-to-device (**D2D**) mobile satellite services in the FSM.
- 2 The purpose of making these amendments is to encourage efficient and sustainable investment in and use of communications networks and services, to promote the effective and efficient use of spectrum, and to extend access to communications services to all persons in the FSM.
- 3 The purpose of this consultation is to gather and consider public comments, so we can consider stakeholders' views before we decide whether, and how, to amend the Spectrum Licensing Rules and the Schedule of Fees Rules.

CONSULTATION FEEDBACK INFORMATION

- 4 The TRA invites written comments and feedback on this consultation document. We have provided a comments form for responses, which can be found in **Attachment 1**.
- 5 Responses may be submitted in person at TRA's offices in Pohnpei, or sent to consultations@tra.fm. Responses are due by **03/16/2026**.
- 6 Submissions will be made public, unless there is a specific request for confidentiality made under Section 322 of the Act.¹
- 7 We provide a list of consultation questions at the end of this document to help organize responses, and for us to receive feedback on specific issues.
- 8 After receiving feedback, we will publish the submissions, and our response to submissions which will state our views and reasons for either making changes or maintaining our initial views.
- 9 We intend to produce a draft decision by the end of April 2026. This will include a draft of the actual written determination we intend to issue. The current consultation provides an opportunity for licensees and members of the general public to provide feedback before the scope of the proposed decision, if any, is finalized and the draft written determination is produced. We will consult on the proposed draft decision and draft written determination before we make a final decision.

BACKGROUND

- 10 The objectives of the FSM Telecommunications Act of 2014 (**the Act**) include "*promoting the long-term interests of users,*"² "*providing conditions for effective competition among service providers in the Federated States of Micronesia and encouraging efficient and*

¹ See the comments form (Attachment 1) for details.

² Section 303(1)(a) of the Act.

sustainable investment in and use of communications networks and services,”³ “promoting the effective and efficient use of the radio frequency spectrum,”⁴ and “extending access to communications services to all persons in the Federated States of Micronesia, to the greatest extent reasonable in the circumstances.”⁵

- 11 Our functions and powers under the Act include the powers to “*manage the radio frequency spectrum required to provide communications services,*”⁶ “*undertake consultations on matters relating to communications,*”⁷ and “*make rules and regulations as provided for under the Act.*”⁸ These powers include, in particular, the power to make spectrum licensing rules relating to the use of radio frequency spectrum⁹ and the power to make rules specifying annual fees for spectrum licenses.¹⁰
- 12 We are now considering whether we should exercise those powers to make rules authorizing the grant of frequency licenses for communications services provided from satellite networks directly to mobile handsets in the FSM and the appropriate spectrum license fees for those licenses.

DIRECT-TO-DEVICE MOBILE SATELLITE SERVICES

- 13 Cellular mobile networks have expanded over the last few years to reach most people. Globally, 98% of the world’s population has access to 2G or better services.¹¹ We estimate that in the FSM, cellular mobile networks now cover approximately 54 percent of the population.¹² However, some people remain outside cellular mobile network coverage areas for various reasons such as geographic remoteness, the difficulty or the cost to establish a cell site, or the difficulty in providing electric power to that location.
- 14 Services based on new technologies are emerging which have the potential to fill in those last few coverage gaps in underserved or unserved areas. These include “direct-to-cell” or “direct-to-device” (**D2D**) mobile satellite services¹² which leverage the coverage offered by satellite services to deliver mobile services directly to the mobile phones or other handheld devices used by consumers and businesses.
- 15 There are two primary technological approaches to delivering these D2D services.¹³

³ Section 303(1)(c) of the Act.

⁴ Section 303(1)(h) of the Act.

⁵ Section 303(1)(i) of the Act.

⁶ Section 305(i) of the Act.

⁷ Section 305(n) of the Act.

⁸ Section 305(p) of the Act.

⁹ Section 333 of the Act.

¹⁰ Section 336 of the Act.

¹¹ ITU Facts and Figures, Mobile Network Coverage. <https://www.itu.int/itu-d/reports/statistics/2024/11/10/ff24-mobile-network-coverage/>

¹² Direct-to-device (D2D) services are voice, SMS and/or data services delivered from satellites to end-user mobile handsets.

¹³ See for example GSMA Public Policy Paper “Spectrum for D2D: The Use of Satellite to Supplement Mobile Coverage” (October 2025). https://www.gsma.com/connectivity-for-good/spectrum/gsma_resources/spectrum-for-d2d-public-policy-paper/

- 16 The first is centered on terrestrial cellular mobile networks. Under this approach, a terrestrial cellular mobile network operator partners with a satellite network operator to allow the latter to use a portion of the former's cellular mobile spectrum to send communications to and from the satellite to the consumers' mobile phones. The consumer does not need a specially-equipped phone because standard cellular mobile frequencies are used, but the cellular mobile network operator must have spectrum available and the satellite network operator needs to have a commercial relationship with the cellular network operator.
- 17 A number of jurisdictions have begun to examine how to authorize this form of D2D services, including the United States,¹⁴ Canada,¹⁵ and the United Kingdom.¹⁶
- 18 The second is based on mobile-satellite service (**MSS**)¹⁷ networks, where the satellite network operator uses its own MSS spectrum, rather than cellular mobile spectrum, to send communications to the consumers' mobile phones. This requires the consumer to have a specially-equipped phone (i.e., one that can support MSS frequencies). Whether the satellite network operator serves consumers directly or enters into a commercial resale arrangement with a cellular network operator will depend upon the business model adopted by the satellite network operator.
- 19 We consider that this second form of D2D service offers great potential for the FSM. It appears to provide a way to extend mobile communications services to areas and to people who have to-date been unserved or underserved by terrestrial cellular mobile networks, including many of the outer islands of the States of the FSM. It would also improve the reliability and resilience of mobile services offered in the FSM.
- 20 However, at the present time, our Rules do not include a category of frequency license or station license that would support this D2D service. As it is a satellite-based service, it would not fit within the existing Cellular Mobile Service Frequency License category and, as it appears to require the exclusive assignment of a frequency range in order to prevent harmful interference, it does not fit within the Satellite Earth Station License contemplated by the Spectrum Licensing Rules. Nor do we have a frequency license fee category that would apply to the spectrum used to provide this D2D service.
- 21 We intend therefore to exercise our powers to make spectrum licensing rules under section 333 of the Act and to make license fee rules under section 335 of the Act, by adding a new category of frequency license and a new set of license fees, as further described below. We intend to exercise these powers in order to support the introduction of D2D services, which will encourage efficient and sustainable investment in and use of communications networks, promote the effective and efficient use of spectrum, and extend access to mobile

¹⁴ Federal Communications Commission (**FCC**), *Single Network Future: Supplemental Coverage from Space*, GN Docket No.23-65, IB Docket No. 22-271, Report and Order and Further Notice of Proposed Rulemaking, FCC-24-28, March 15, 2024.

¹⁵ Industry, Science and Economic Development Canada, *Decision on a Policy, Licensing and Technical Framework for Supplemental Mobile Coverage by a Satellite*, SMSE-001-25, February 2025.

¹⁶ Ofcom, *Improving mobile connectivity from the sky and space*, Call for Input, July 23, 2024.

¹⁷ Mobile satellite services (MSS) are satellite services that provide two-way voice or narrowband data communications to users typically on the move or in remote locations. D2D services are a subset of MSS services, as the latter connect to a broader range of mobile or portable terminals, such as terminals on aircraft, ships or other vehicles, or handheld satellite phones. D2D services are intended to connect to consumer cellular mobile handsets.

communications services to all persons in and to all areas of the FSM, to the greatest extent possible.

- 22 For greater clarity, we are not proposing to amend the spectrum licensing rules to introduce other frequency or station licenses for other types of MSS licenses or other types of satellite service licenses at this time. If we do so, we would conduct a separate consultation on that matter.

Question 1: Do you agree with our proposal to make spectrum licensing rules and license fee rules to support the introduction of D2D services in the FSM? If not, please explain why and please explain why you believe the long-term interests of users would be better promoted by not making these rules.

PROPOSED CHANGES TO SPECTRUM LICENSING RULES

- 23 Accordingly, we propose to amend the Spectrum Licensing Rules by adding a new category of frequency license. This amendment would involve inserting a new section in Schedule 1 of the Spectrum Licensing Rules between the existing *Section 2 – Cellular Mobile Service License* and *Section 3 – Fixed Service Licenses*.
- 24 A draft of the proposed new section is attached as **Attachment 2**. We strongly recommend that you review that Attachment, and not simply rely on the description below, when submitting your comments.
- 25 Spectrum licenses for satellite services are often issued as station licenses¹⁸ (e.g., satellite earth stations). However, because the D2D service is very similar to cellular mobile service, and because it is more practical to grant exclusive use of a frequency range to a single licensee for a service of this nature, we propose to introduce a frequency license¹⁹ for the D2D service.
- 26 This new category of frequency license would grant licensees the exclusive use of certain MSS frequency ranges to provide D2D services. Because the service is similar to cellular mobile service, we consider that the MSS frequency ranges used for D2D services have or may have high economic value, and that it is not practical for multiple D2D service operators to share the same frequency range. As a result, we consider that any relevant spectrum should be awarded pursuant to a Request for Applications under section 17 of the Spectrum Licensing Rules (instead of on a first-come, first-served basis).
- 27 Similar to the Cellular Mobile Service Frequency License, this new category of frequency license would authorize the deployment of an unlimited number of end-user terminals (e.g., mobile handsets) without requiring individual authorization of that radio apparatus through station licenses. However, other types of earth stations would continue to require authorization under individual station licenses.

¹⁸ Defined in section 13(1)(b) of the Spectrum Licensing Rules as a license “authorizing Licensees to install, establish and use the Radio Apparatus and use Radio Frequency spectrum.”

¹⁹ Defined in section 13(1)(a) of the Spectrum Licensing Rules as a license “authorizing Licensees to use specific Radio frequency blocks or particular frequencies.”

- 28 Because of the space-based nature of the technology used to deliver the service, we propose to grant licenses for the use of the relevant spectrum across the entire territory of the FSM and not in individual States (unlike in the case of Cellular Mobile Service Frequency Licenses).
- 29 In order to promote the timely deployment of services and use of the spectrum, we propose to require the applicant to demonstrate that it is either a satellite network operator or has a commercial arrangement with a satellite network operator for access to a satellite or satellite system that has been duly filed with the ITU, that uses the relevant frequencies, and whose service area includes the FSM.

Question 2: Do you agree with the proposed rules for the Direct-to-Device Mobile Satellite Service License set out in **Attachment 2**, in particular but not limited to the proposal that D2D spectrum only be licensed following a Request for Applications? If not, please describe how you would propose to change the rules and explain why.

PROPOSED CHANGES TO SCHEDULE OF FEES RULES

- 30 As noted above, we also consider that we need to establish a new frequency license fee that would apply to the spectrum used to provide this MSS-based D2D service.
- 31 We consider that the proposed D2D Mobile Satellite Service is similar to the Cellular Mobile Service, as both provide mobile communications services directly to the mobile handsets of users, although the former relies on transmissions to and from satellites while the latter relies on transmissions to and from terrestrial cell sites.
- 32 Because of this similarity, and in order to promote equitable competition among different providers of mobile communications services, we consider that licensees of D2D Mobile Satellite Service spectrum should pay the same spectrum license fees as holders of Cellular Mobile Service Licenses for similar amounts of spectrum.
- 33 We propose, therefore, to amend Schedule 1 of the Schedule of Fees Rules by adding a new category of fees in *Section 5 – Fees Applicable to Frequency Licenses*.
- 34 A draft of the proposed new category of fees is attached as **Attachment 3**. We strongly recommend that you review that Attachment, and not simply rely on the description below, when submitting your comments.
- 35 These new annual and application fees would be identical to those which currently apply to the Cellular Mobile Service License.

Question 3: Do you agree with the proposed annual and application license fees for the Direct-to-Device Mobile Satellite Service License set out in **Attachment 3**? If not, please describe how you would propose to change the license fees and explain why.

RELEVANT MSS SPECTRUM BANDS

- 36 Except as noted below, we are not specifying the specific MSS frequency ranges that this frequency license category would apply to at this time, and intend to conduct a separate consultation on that matter. At that time, we will also consult on whether MSS frequency ranges used for D2D services should be included in the spectrum aggregation limits in our 2025 Spectrum Aggregation Policy.²⁰
- 37 However, notwithstanding this, we note that other jurisdictions have designated the 2GHz band (2170-2200 MHz paired with 1980-2010 MHz in the FSM)²¹ for D2D services and have licensed it on an exclusive basis. We are of the preliminary view that this band, when used for D2D services, has high economic value. In the FSM, this band has been licensed to Starlink, and we propose that the D2D service frequency license category apply at a minimum to that MSS frequency range.

Question 4: Do you agree that the Direct-to-Device Mobile Satellite Service License should apply to licenses issued for frequencies in the 2GHz band (2170-2200 MHz paired with 1980-2010 MHz)? If not, please explain why.

Question 5: Are there other frequency ranges or bands that you believe should be included under the Direct-to-Device Mobile Satellite Service License? If so, please explain why and describe the potential impact on other users or potential users of those frequency ranges or bands.

NEXT STEPS

- 38 We will carefully consider all submissions received by the deadline specified in paragraph 5 above. Following this, we will publish for consultation our Draft Decision, including our responses to the submissions and an explanation for any changes we might make to the proposed amendments to the Spectrum Licensing Rules and/or the Schedule of Fees Rules.
- 39 After carefully considering any submissions received in response to the Draft Decision, we will publish our Final Decision.

CONSULTATION QUESTIONS

- 40 We provide here the relevant consultation questions for respondents' consideration below. When answering a question, please explain your reasoning in detail.
- a. Do you agree with our proposal to make spectrum licensing rules and license fee rules to support the introduction of D2D services in the FSM? If not, please explain why and please explain why you believe the long-term interests of users would be better promoted by not making these rules.

²⁰ Available at <https://tra.fm/wp-content/uploads/2025/08/Final-Decision-on-Spectrum-Aggregation-Limits-Consultation-002.pdf>

²¹ The range differs slightly from country to country.

- b. Do you agree with the proposed rules for the Direct-to-Device Mobile Satellite Service License set out in **Attachment 2**, in particular but not limited to the proposal that D2D spectrum only be licensed following a Request for Applications? If not, please describe how you would propose to change the rules and explain why.
- c. Do you agree with the proposed annual and application license fees for the Direct-to-Device Mobile Satellite Service License set out in **Attachment 3**? If not, please describe how you would propose to change the license fees and explain why.
- d. Do you agree that the Direct-to-Device Mobile Satellite Service License should apply to licenses issued for frequencies in the 2GHz band (2170-2200 MHz paired with 1980-2010 MHz)? If not, please explain why.
- e. Are there other frequency ranges or bands that you believe should be included under the Direct-to-Device Mobile Satellite Service License? If so, please explain why and describe the potential impact on other users or potential users of those frequency ranges or bands.

Attachments

- 1 Attachment 1: Comments form
- 2 Attachment 2: Proposed Direct-to-Device Mobile Satellite Frequency License
- 3 Attachment 3: Proposed Direct-to-Device Mobile Satellite Frequency License Fees

Annex – List of defined terms

Act	The FSM Telecommunications Act of 2014
D2D	Direct-to-Device
FCC	Federal Communications Commission of the United States of America
FSM	The Federated States of Micronesia
MSS	Mobile-Satellite Service
TRA	The Telecommunication Regulation Authority

Attachment 1 - Comments Form



Feedback on Consultation Paper: Direct-to-Device Mobile Satellite Service

Information of commenting party

Full name	
Organization	
Phone number	
Email	
Is confidential information being submitted?	Y/N (Specify below)

Comments

	Comment	Proposed changes	Confidentiality ²²
<i>Paragraph Number or Section of Consultation Document, or Consultation Question, that Comment Pertains To</i>	<i>Please describe comments on specific section or question. Please be as detailed as possible and explain why you hold your views and what the potential impact of the Authority's proposed Rules changes would be</i>	<i>Please suggest an alternative to the proposed Rules changes (if applicable)</i>	<i>If confidential, please explain reasons for confidentiality request</i>
<i>(Insert rows as needed)</i>			

Please complete this form in full and submit to consultations@tra.fm or in person before March 16th 2026 to:

Takuro Akinaga
 Chief Executive
 FSM Telecommunication Regulation Authority
 KSP Building, 2nd Floor

²² Confidentiality requests are managed under the rules set out in Section 322 of the Telecommunications Act. Respondents should clearly mark which information is claimed as being confidential and should provide reasons of what commercial harm will result should the information be published. Respondents who make a request for confidentiality should also provide a redacted copy of their submission, with all confidential information removed, that the TRA may publish.

Main Street, Kolonia
Pohnpei FM 96941, Federated States of Micronesia

Attachment 2 - Proposed Direct-to-Device Mobile Satellite Frequency License

Section 2A. Direct-to-Device Mobile Satellite Service License

- (1) The Authority may authorize Persons to transmit, receive, or transmit and receive Communications by means of Radio Apparatus for the purpose of providing Direct-to-Device Mobile Satellite Services to the public.
- (2) The Authority shall license Persons for public Direct-to-Device Mobile Satellite Services only according to the National Table of Frequency Allocations, taking into consideration the Radio spectrum frequencies identified for Mobile Satellite Service by the ITU.
- (3) The Authority shall assign Direct-to-Device Mobile Satellite Service Licenses following a request for applications published by the Authority in accordance with Section 17.
- (4) Conditions and requirements for Direct-to-Device Mobile Satellite Service Licenses:
 - (a) Persons applying for a Direct-to-Device Mobile Satellite Services License must obtain an associated Operating License.
 - (b) Persons applying for a Direct-to-Device Mobile Satellite Services License must demonstrate that they are either a satellite network operator with, or have a commercial arrangement with a satellite network operator for, access to a satellite or satellite system that uses the relevant frequencies. The applicant shall demonstrate that the frequencies used by the satellite or satellite system have either been confirmed as brought into use, as defined in the ITU Radio Regulations, or submitted to the ITU in a notification and published 'as received', and that the applicable service area includes the FSM.
 - (c) a License granted under this section includes both the right to use approved frequencies and to operate the end user Radio Apparatus that uses those frequencies; it does not include the right to operate other types of earth stations, such as stations conducting TT&C functions for associated satellite networks and systems; gateway and feeder link stations for FSS, BSS and MSS; landing stations used to backhaul telecommunications services within a community hub model, where local distribution is done by terrestrial services; or end user terminals that do not use the approved frequencies.
 - (d) a License granted under this Section authorizes the Licensee to deploy an unlimited number of end user terminals; no individual authorization of such Radio Apparatus is required.
 - (e) Communications Network and end user Radio Apparatus does not require approval by the Authority prior to the commencement of operations provided it is compliant with the provision of Section 32 of these Rules.
 - (f) Coverage obligations may be imposed by the Authority in accordance with Section 38.

- (g) The Authority shall assign Licenses under this section for use of the radio frequency spectrum block or band in the entire territory of the FSM.
 - (h) Radio Apparatus used as part of providing the authorized service shall comply with any technical standards or requirements in accordance with Section 32.
 - (i) Other technical conditions (e.g., power limits for Radio Apparatus and end user devices) may be specified from time to time in order to minimize interference.
 - (j) The Authority may establish additional conditions and requirements in the Direct-to-Device Mobile Satellite Service License.
- (5) Holders of a Direct-to-Device Mobile Satellite Service License shall:
- (a) only use the radio frequencies or radio frequency bands approved by the Authority;
 - (b) register the satellite(s) used by the Direct-to-Device Mobile Satellite Service with the Authority, but no prior approval for building or operating such satellite(s) is required from the Authority provided they are licensed by the relevant foreign administration;
 - (c) keep adequate records to allow any instances of interference to be resolved.
- (6) The initial term of Direct-to-Device Mobile Satellite Service Licenses shall be fifteen (15) years, with renewals allowed under Section 24.

Attachment 3 - Proposed Direct-to-Device Mobile Satellite Frequency License Fees

License Type	Description	Application Fee	Annual Fee	Renewal Fee
Direct-to-Device Mobile Satellite	Frequencies below 1 GHz (per 2x5 MHz)	85 or as determined in the tender documents	15,980	As determined by the Authority at the time of renewal
	Frequencies above 1 GHz (per 2x5 MHz)	85 or as determined in the tender documents	6,390	As determined by the Authority at the time of renewal