



A Consultation Paper on
**Bottleneck Fiber Optic
Communications
Facilities**

Inviting public comment and input

06/01/2021

Introduction

- 1 The Telecommunications Regulatory Authority (TRA) **is seeking your feedback** on whether to declare fiber optic communications facilities to be “*bottleneck facilities*” and to amend Schedule 1 of the Interconnection and Access Rules (**the Access Rules**) by written order accordingly.¹
- 2 The purpose of making this declaration would be to enable the TRA to achieve the objective of providing conditions for effective competition and encouraging efficient and sustainable investment in and use of communications networks and services under the Act.
- 3 The purpose of this consultation is to gather and consider public comments, so we can consider stakeholders’ views before we decide whether to declare fiber optic communications facilities to be bottleneck facilities and, if so, the scope of that declaration.

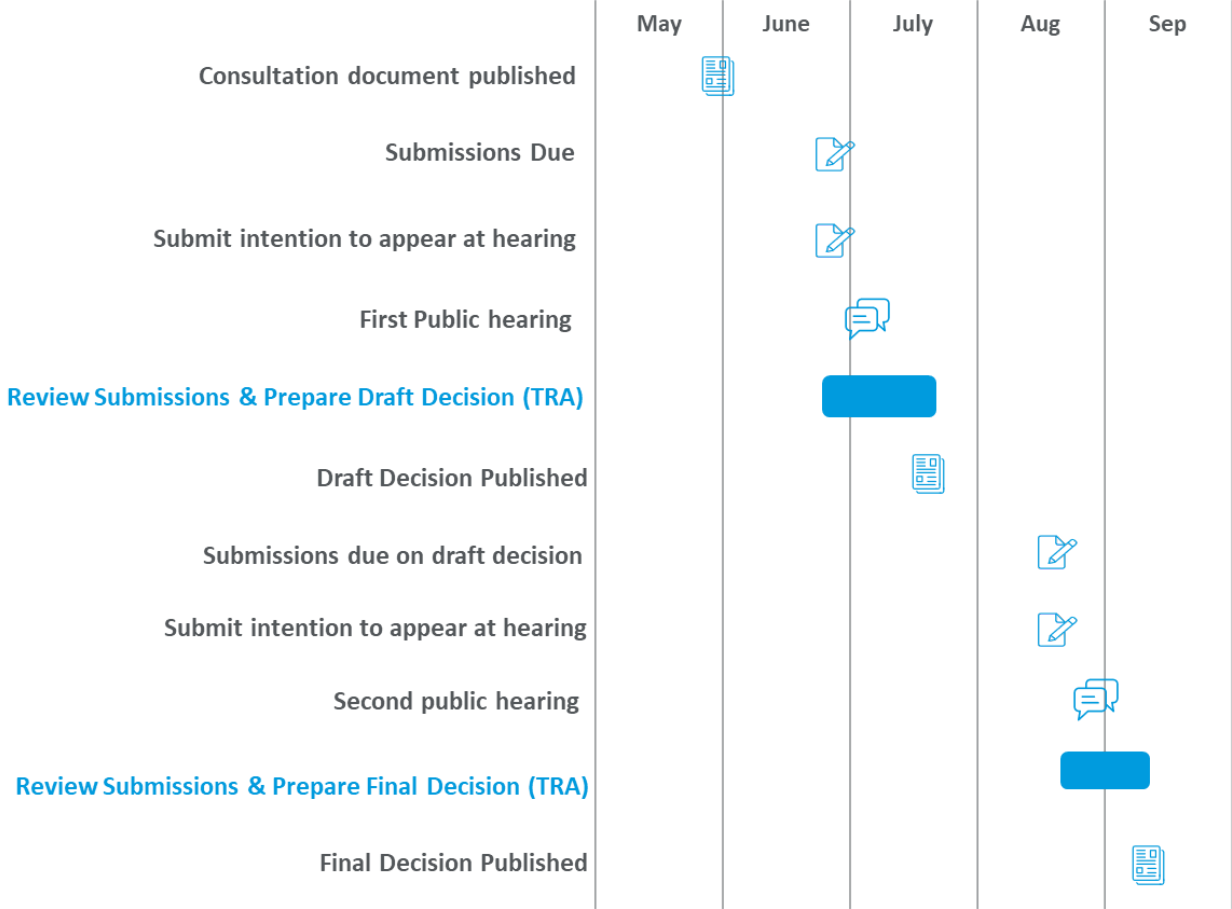
Consultation feedback information

- 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 **June 25th 2021**.
- 6 Submissions will be made public, unless there is a specific request for confidentiality made under Section 322 of the Act.²
- 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 We intend to hold a public hearing to allow interested parties, including those who did not submit written responses to this consultation, to provide additional feedback. We would be grateful if persons who wish to participate in this hearing advise us by no later than **June 25th 2021**. Failure to advise will not preclude you from attending the hearing if the TRA hold the hearing, but if we do not receive any advice of interest in attending a hearing, then that might be a factor in the TRA determining not to proceed with the intended hearing.
- 9 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.
- 10 We intend to produce a draft decision by no later than the end of July 2021. This will include a draft of the actual written order we intend to issue. The current consultation provides an opportunity for licensees to provide feedback before the scope of the proposed declaration, if any, is finalized and the draft written order is produced. We will consult on

¹ In accordance with Section 321 of the 2014 Telecommunications Act (**the Act**).

² See the comments form (Attachment 1) for details.

the proposed draft decision and draft written order before we make a final decision. Our intended timeframe for the rest of the consultation process is shown in the diagram below.



Background

- 11 The objectives of the Act include “providing conditions for effective competition among service providers in the Federated States of Micronesia and encouraging efficient and sustainable investment in and use of communications networks and services”³ and “providing efficient use of communications facilities and providing for cost-based interconnection and access on an equitable and non-discriminatory basis for operators of communications networks...”⁴
- 12 Among other measures to achieve these objectives, the Act requires licensees to provide access to their “bottleneck facilities” to other licensees for the purposes of providing communications services.⁵
- 13 The Act gives us the power to declare communications facilities to be “bottleneck facilities” for the purposes of the Act.

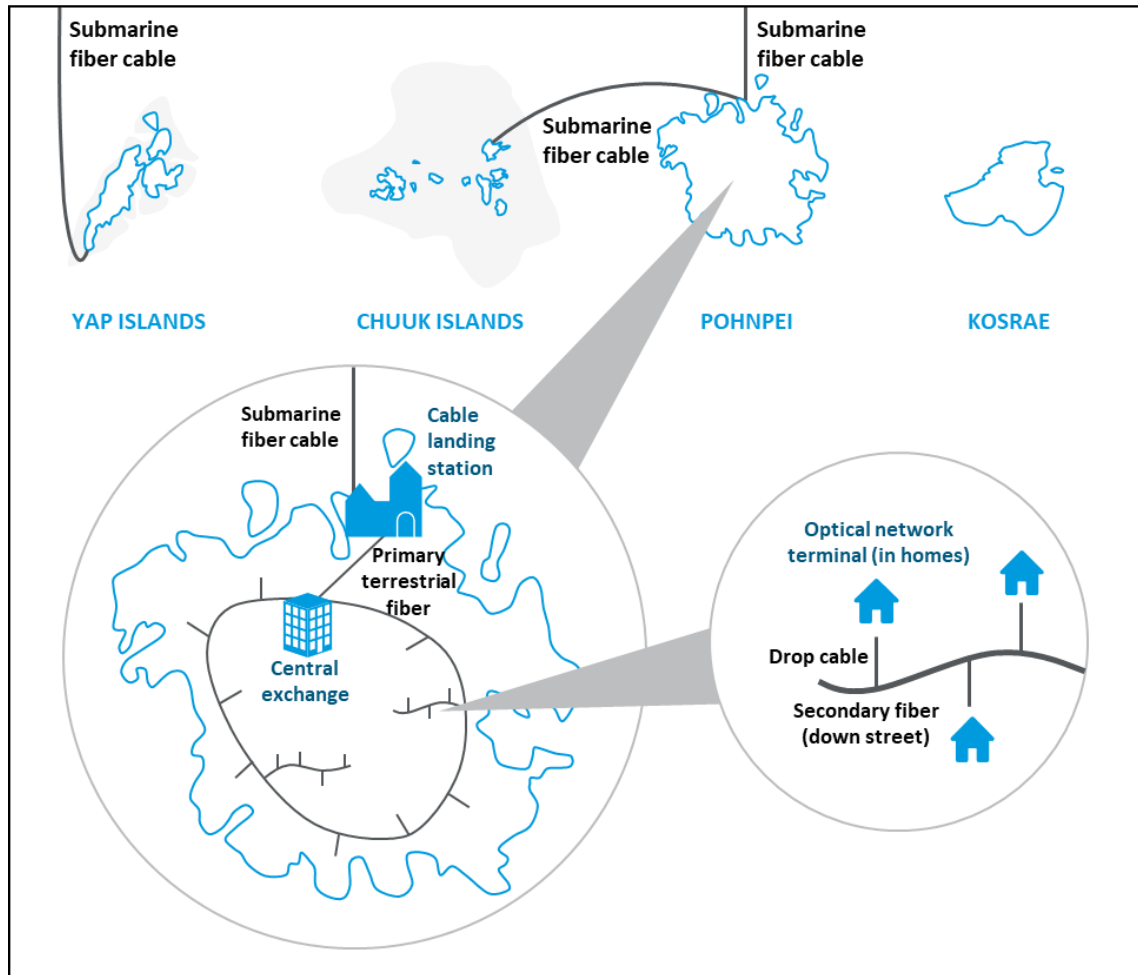
³ Section 303(1)(c) of the Act.
⁴ Section 303(1)(e) of the Act.
⁵ Section 339(1)(g) of the Act.

- 14 We have already declared a number of communications facilities to be “*bottleneck facilities*,” specifically:
- a. towers and other supporting constructions for the provisions of radio communications services
 - b. poles, masts, ducts, conduits, inspection chambers, manholes and cabinets and
 - c. submarine cable landing stations.⁶
- 15 We are now considering whether this list should be amended by declaring submarine and terrestrial fiber optic communications facilities to be “*bottleneck facilities*” and by adding them to the list in Schedule 1 of the Access Rules.
- Fiber Optic Communications Facilities**
- 16 Submarine and terrestrial fiber optic networks have been built or are being planned in all States of the FSM.
- 17 Submarine fiber cables connect overseas locations with cable landing stations in the FSM. Submarine cables currently land in Yap, Chuuk and Pohnpei,⁷ and one is planned for Kosrae.
- 18 Terrestrial fiber networks connect those cable landing stations to the central offices or exchanges of a telecommunications licensee and, from there, to Optical Network Terminals in individual homes and businesses via a core fiber distribution network along streets and roads⁸ and via drop cables connecting that core distribution network to individual premises.
- 19 This is illustrated in the diagram below (not to scale).

⁶ Schedule 1 of the Interconnection and Access Rules.

⁷ The Yap Spur on the SEA-US Cable, the Chuuk-Pohnpei Cable, and the Pohnpei Spur on the HANTRU-1 Cable System.

⁸ FSMTC described this “core” network in a February 2020 RFP as consisting of “primary” and “secondary” fiber. The FSM Telecommunications Cable Corporation (**the OAE**) described it in documentation available on its website (<https://fsmcable.com>) as the “communal network.”



- 20 Terrestrial fiber networks have been built on Weno and parts of Pohnpei, are being built in Yap, and are planned elsewhere in the FSM.

Bottleneck Facilities

- 21 The Act defines a “*bottleneck facility*” to be “*a communications facility declared by the Authority to be essential for the production of communications services which, for technical reasons or due to economies of scope and scale and the presence of sunk costs, cannot practicably be duplicated by a potential competitor in a communications market.*”⁹
- 22 The Act defines a “*communications facility*” to be “*any infrastructure, building, or switching equipment; any submarine cable landing in the Federated States of Micronesia, submarine cable landing station, or satellite transmitting facility; any location, mast site, tower, pole, trunk line, access line, duct or other underground facility; or other passive equipment that is used or is capable of being used for communications or for any operation directly connected with communications, but excluding customer equipment.*”¹⁰ (emphasis added)

⁹ Section 302(f) of the Act

¹⁰ Section 302(h) of the Act

- 23 In order for a communications facility to be considered a “*bottleneck facility*,” we must make a declaration to that effect.
- 24 We consider that submarine and terrestrial fiber optic communications facilities *may be* bottleneck facilities as defined by the Act.
- 25 We consider that they are communications facilities that are essential for the production of a broad range of fixed and mobile communications services. These communications services include retail high speed Internet access (broadband) services, backhaul services to connect mobile cell sites to core networks, and international voice and data communications services.
- 26 Once built, they are not likely to be duplicated by a potential competitor because of the prohibitively high cost to build them and the small size of the FSM market in which to recoup the investment.
- 27 For example, we do not foresee any additional submarine cables being built to Yap, Chuuk or Pohnpei to compete with the existing submarine cables, or to Kosrae once a submarine cable is built to that island. We understand that the existing submarine cables have sufficient capacity to meet the needs of Yap, Chuuk and Pohnpei residents and businesses in the near term. Should additional capacity be required, it is typically far more cost-effective to upgrade an existing submarine cable than to build a new one to the same location.
- 28 Consequently, we are of the view that competing submarine fiber networks cannot practicably be duplicated in any of the States.
- 29 Similarly, it typically does not make commercial sense for a telecommunications licensee to build a terrestrial fiber network where one already exists because of the significant capital investment that would be required to duplicate it and the large challenge of recouping that investment in a small market.¹¹
- 30 While the OAE is not subject to the same commercial considerations as other licensees because its communications facilities are grant-funded, a condition of the grant funding is typically that the money not be used to duplicate existing communications facilities. In effect, the OAE would also not be able to practicably duplicate such a terrestrial fiber network.
- 31 Consequently, we are of the view that terrestrial fiber networks cannot practicably be duplicated in any of the States.

Consequences of a Declaration of Bottleneck Facility

- 32 Licensees who own or control bottleneck facilities are subject to various obligations in the Act and in the Access Rules. These include in particular the obligations:

¹¹ The OAE estimates that building the terrestrial fiber network along roads will cost an estimated \$4-5 million and that connecting individual homes and businesses to that network will cost an additional \$4-5 million. <https://fsmcable.com/2020/11/24/press-release/>

- a. in Section 339(g) of the Act, to provide “*access to communications facilities, networks, software and services, in a manner that is sufficiently unbundled, including co-location, to enable the second licensee to access the facilities and wholesale services that it reasonably requires in order to provide communications services to its customers;*”
 - b. in section 39(1) of the Access Rules, to “*agree to, and take all reasonable steps required to give effect to, reasonable requests for Access to and use of, Bottleneck Facilities it owns or Controls;*” and
 - c. in sections 39(2) and 42 of the Access Rules, to refuse to grant access to bottleneck facilities the licensee owns or controls only “*on grounds of technical, economic, or legal infeasibility.*”
- 33 Licensees who own or control bottleneck facilities are also subject to Section 343(2)(g) of the Act, which considers “*designing or installing a communications facility or a communications network with the purpose of preventing or hindering another licensee from acquiring interconnection or access*” to be anti-competitive conduct.
- 34 If we do not declare submarine or terrestrial fiber networks to be “*bottleneck facilities*” under the Act, licensees who own or control them would not be required to provide access to them to other licensees. Further, we would not have the power under Section 340 of the Act to determine disputes between licensees on the terms of access to submarine or terrestrial fiber networks. To the extent that they are essential for the production of communications services, a potential competitor could either be excluded from the market, or could be forced to make an inefficient and unsustainable investment in duplicate facilities in order to produce those communications services, contrary to the objectives of the Act. This could prevent the development of effective competition in the FSM, contrary to the objectives of the Act, and could give licensees who own those facilities significant market power.
- 35 If we decide to declare submarine or terrestrial fiber networks to be “*bottleneck facilities,*” we would issue a written order amending the list of such facilities in Schedule 1 to the Access Rules.

Consultation questions

- 36 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 the proposition that submarine and terrestrial fiber communications facilities are bottleneck facilities as defined in the Act?
Yes, to enable TRA to achieve the objective of providing conditions for effective competition.
 - b. In your view, are submarine and terrestrial fiber communications facilities essential for the production of communications services in the FSM?
Yes, same as above (a)
 - c. In your view, could either submarine or terrestrial fiber optic communications facilities practicably be duplicated by a potential competitor in a communications market in the FSM? Please explain the reasons why, in your view, a
It could be Yes or No. I chose No, because of the high cost to build and small size of the FSM market.

communications facility can or cannot practicably be duplicated by a potential competitor in a communications market in the FSM.

- d. Referring to the description of fiber optic communications facilities in paragraphs 17-18 above, are in your view there any specific elements or portions of either submarine or terrestrial fiber optic communications facilities that could be practicably duplicated by a potential competitor? Short answer is no
- e. Are there any geographic or product markets in the FSM in which submarine or terrestrial fiber networks could be practicably duplicated by a potential competitor? Not so sure because of small size market in FSM

Annex

- 1 Attachment 1: Comments form

Attachment 1 - Comments Form



Feedback on Consultation Paper: Bottleneck Fiber Optic Communications Facilities

Information of commenting party

Full name	Paul James
Organization	Department of TC&I, FSM National Gov't.
Phone number	320-2865
Email	pauljames787@gmail.com
Is confidential information being submitted?	Y/N (Specify below)

Comments

	Comment	Proposed changes	Confidentiality ¹²
<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 declaration would be</i>	<i>Please suggest an alternative to the proposed declaration (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 **June 25th 2021** to:

Takuro Akinaga
Chief Executive
FSM Telecommunication Regulatory Authority
Suite 1A, Varner-Boylan Building
Pohnumpomp, Nett Municipality

¹² 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.

Pohnpei FM 96941, Federated States of Micronesia