



PUBLIC NOTICE

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WIRELESS TELECOMMUNICATIONS BUREAU SEEKS COMMENT ON GENERAL COMMUNICATION, INC.'s REQUEST FOR WAIVER OF CERTAIN REQUIREMENTS IN THE UPPER 6 GHZ BANDS

WT Docket No. 16-209

Comment Date: July 15, 2016
Reply Comment Date: August 1, 2016

On April 15, 2016, General Communication, Inc. (“GCI”) filed a petition requesting waiver of certain channelization and other limitations in the 6425–6525 MHz, 6525–6875 MHz, and 6875–7125 MHz bands (“Upper 6 GHz bands”) to substantially increase the capacity of TERRA, GCI’s rural broadband system (“Waiver Request”).¹ GCI seeks authorization to deploy common carrier fixed point-to-point microwave service using wider, 60 MHz channels across the three Upper 6 GHz sub-bands at defined sites in rural Alaska, as well as for microwave paths directly connected to those sites.² We seek comment on the petition.

GCI operates TERRA, which it states is the first terrestrial (i.e., non-satellite) middle-mile network in western Alaska.³ TERRA is a hybrid fiber-microwave network that provides broadband to more than 70 isolated, mostly Alaska Native, communities, many of which, according to GCI, are separated by vast distances and cannot be reached by road.⁴ GCI states that it continues to upgrade and expand TERRA, but the backbone paths of the microwave system are nearing capacity.⁵ GCI asserts that using an alternative, wired backbone by installing high-capacity fiber “to all, or even most, Alaskan locations currently is logistically, technologically, operationally, and economically infeasible.”⁶

To resolve the capacity constraints it describes, GCI requests that the FCC waive certain rules with respect to the current TERRA microwave sites or planned sites directly connected to the TERRA

¹ Petition of General Communication, Inc., for Waiver of Certain Channelization and Other Restrictions on Common Carrier Fixed Point-to-Point Operations Between 6425 and 7125 MHz (filed April 15, 2016). On May 3, 2016, GCI filed an amended petition correcting the list of existing TERRA backbone locations found in Appendix A. GCI did not make any other substantive modifications.

² Waiver Request at 1.

³ Waiver Request at 2.

⁴ Waiver Request at 2, 5. GCI explains that the TERRA network backbone consists of more than 2,000 miles of microwave links and 400 miles of fiber. Waiver Request at 5-6.

⁵ Waiver Request at 2.

⁶ Waiver Request at 6. Further, GCI asserts that it cannot increase microwave capacity by adding additional channels outside of the 6 GHz bands because “supplementing existing capacity with channels in entirely new bands would require GCI to rebuild from the ground up many of the towers of the TERRA backbone.” Waiver Request at 10-11.

network.⁷ The Commission's Lower 6 GHz rules currently allow eight 60 MHz channels of common carrier fixed point-to-point microwave service across a single 500 MHz spectrum band.⁸ In contrast, the Commission's Upper 6 GHz plan creates three separate bands (6425–6525 MHz; 6525–6875 MHz; and 6875–7125 MHz), the first of which is not available for common carrier fixed microwave service,⁹ and none of which allows 60 MHz channels.¹⁰ A geographically limited waiver, GCI asserts, would allow it to use contiguous 60 MHz channels across the three Upper 6 GHz sub-bands, enabling GCI to expand capacity on the TERRA network by adding more capacity with fewer radios, avoiding the need for extensive new construction that, because of Alaska's unique conditions, would be infeasible.¹¹ GCI states that it has identified no other operators in the Upper 6 GHz bands near the TERRA backbone sites that would be affected by the proposed waiver.¹²

First, GCI asks that the FCC waive Section 101.101 of the Commission's rules to permit GCI to provide common carrier fixed point-to-point microwave service in the 6425–6525 MHz band, consistent with the rest of the 6 GHz frequencies, in order to increase capacity.¹³ Second, GCI asks the FCC to waive Section 101.109(c) of the Commission's rules, to allow GCI to use 60 megahertz-wide channels in the Upper 6 GHz frequency bands.¹⁴ GCI asserts that "[a]llowing wider channels can also result in more efficient spectrum utilization"¹⁵ and that these wider channels "will cause no coordination and interference challenges along the existing or planned TERRA network, where Upper 6 GHz bands currently lie fallow."¹⁶ GCI states that it will work closely with a frequency coordinator, under the existing coordination procedures, to prevent interference with other licensees who seek to operate in the Upper 6 GHz bands in close proximity to the TERRA backbone in the future.¹⁷ Finally, GCI requests that the Commission waive Section 101.147(j)-(l) of the Commission's rules to authorize a contiguous band from 6425 to 7125 MHz that allows 60 MHz channels to span across the current sub-bands of 6425-6525 MHz, 6525-6875 MHz, and 6875-7125 MHz.¹⁸ If the FCC grants the waiver request, GCI indicates that it plans to create ten 60 GHz channels across all three Upper 6 GHz spectrum bands, which it claims will reduce the necessary equipment, power, and overall cost to achieve higher middle-mile capacity.¹⁹ GCI argues that without a waiver allowing band unification, a significant amount of valuable spectrum would be stranded or would be needed to provide duplex gaps between transmitters and receivers across three

⁷ GCI limits its request to current TERRA microwave sites identified at Appendix A of the Waiver Request and microwave paths directly connected to those sites. Waiver Request at 2. On May 3, 2016, GCI filed an amended petition correcting the list of existing TERRA backbone locations found in Appendix A.

⁸ These channels span 5925–6425 MHz. See 47 CFR § 101.147(i)(9). See also Waiver Request at 12.

⁹ See 47 CFR Part 101, subpart I.

¹⁰ Waiver Request at 12. See 47 CFR § 101.147(j), (k) and (l).

¹¹ Waiver Request at 12-13.

¹² Waiver Request at 15.

¹³ Waiver Request at 12, 15. See 47 CFR § 101.101.

¹⁴ Waiver Request at 12, 16-17. See 47 CFR § 101.109(c). GCI seeks to implement a uniform channelization scheme in the Upper 6 GHz sub-bands with 60 MHz channels pursuant to ITU-R Rec. F-384. Waiver Request at 11.

¹⁵ Waiver Request at 16, quoting *Amendment of Part 101 of the Commission's Rules to Facilitate the Use of Microwave for Wireless Backhaul & Other Uses & to Provide Additional Flexibility to Broad. Auxiliary Serv. & Operational Fixed Microwave Licensees*, Second Report and Order, 27 FCC Rcd 9735, 9756 ¶ 52 (2012).

¹⁶ Waiver Request at 17.

¹⁷ *Id.*

¹⁸ Waiver Request at 12, 17-18. See 47 CFR § 101.147(j)-(l).

¹⁹ Waiver Request at 12-13, 16.

separate bands.²⁰ GCI asserts that allowing TERRA to operate under these modified rules “is the only technically and economically feasible option to satisfy growing demand on GCI’s TERRA network in the foreseeable future.”²¹

We seek comment on the petition.

Procedural matters

Interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission’s Electronic Comment Filing System (ECFS). *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998). When filing documents, please reference WT Docket No. 16-209.

- Electronic Filers: Comments may be filed electronically using the internet by accessing the ECFS: <http://apps.fcc.gov/ecfs/>.
- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission’s Secretary, Office of the Secretary, Federal Communications Commission.

- All hand-delivered or messenger-delivered paper filings for the Commission’s Secretary must be delivered to FCC Headquarters at 445 12th St., SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th St., SW, Washington DC 20554.

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This proceeding has been designated as a “permit-but-disclose” proceeding in accordance with the Commission’s *ex parte* rules.²² Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation

²⁰ Waiver Request at 18, citing Appendix C Fig. 2.

²¹ Waiver Request at 2-3.

²² *See* 47 CFR §§ 1.1200(a), 1.1206.

consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with Section 1.1206(b) of the Commission's rules.

In proceedings governed by Section 1.49(f) of the Commission's rules or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (*e.g.*, .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

For further information, contact Jeff Tignor, Broadband Division, Wireless Telecommunications Bureau, at jeffrey.tignor@fcc.gov or at 202-418-0774.

By the Chief, Broadband Division, Wireless Telecommunications Bureau.

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